

Ellis W. Merschoff, Chief
Vendor Inspection Branch
Division of Reactor Inspection and Safeguards
Office of Nuclear Reactor Regulation
United States Nuclear Regulatory Commission
Washington, DC 20555

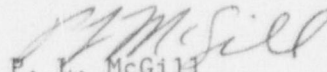
Dear Mr. Merschoff:

This is in reply to your letter of October 28, 1987 regarding NRC inspection of our nuclear fuel manufacturing quality assurance program in Windsor, Connecticut.

The requested investigations, corrective actions, preventive measures, and related completion dates regarding items listed in the Notice of Nonconformance enclosure of your letter are given in Attachment 1. Attachment 2 discusses the unresolved case of the alleged placing of oversized pellets into trays containing acceptable fuel pellets.

We have reviewed your letter and the attached report and do not find any information of a proprietary nature.

Very truly yours,



P. L. McGill
Vice President
Nuclear Fuel

PLM/MMG/sam
Attachments

8712070179 871124
PDR QA999 EMVC-E
99900002 PDR

11
IE:09

1.0 NONCONFORMANCE 11.1 CORRECTIVE ACTION

Paragraph 8.4.1.7 now reads "Traceability shall be maintained." This conforms to 10CFR50, Appendix B.

1.2 PREVENTIVE MEASURES

The Quality Assurance Manual has been thoroughly reviewed to assure that it is in conformance to 10CFR50, Appendix B. No other non-conformances were noted.

1.3 COMPLETION DATE

The aforementioned revision and the revised Quality Assurance Manual were formally issued November 24, 1987.

2.0 NONCONFORMANCE 22.1 CORRECTIVE ACTION

The newly revised Quality Assurance Manual contains references to Temporary Shop Instructions (TSI's) in both Sections 6.3.4 and 6.4.5.2.1. These sections refer to Procedure MFG-14-20, Temporary Shop Instruction Procedure, which details how the TSI is used.

2.2 PREVENTIVE MEASURES

The newly revised Quality Assurance Manual now contains reference to specific detailed procedures where they are required to amplify the degree of detail needed to ensure compliance with a procedural system. Twenty five such procedures are now included as an addendum to the Quality Assurance Manual.

2.3 COMPLETION DATE

The Quality Assurance Manual was released on November 24, 1987. MFG-14-20 is dated September 16, 1987.

3.0 NONCONFORMANCE 33.1 CORRECTIVE ACTION

Combustion Engineering does not believe that MFG-15-05, Process Specification for Grinding Pellets, needs correction, in that it was not intended to meet the criteria of a "special process" as defined by QC-15-14, Procedure for Special Process Qualification. This document states that special processes include nondestructive testing, heat treatment, sintering, welding and cleaning. Grinding is considered as a machining operation.

3.1 (Cont'd)

MFG-15-05 is not a process qualification document. It is a specification which lists the general type of equipment to be used, the type of coolant, and the method of removing grinder dust.

Whereas grinding is an activity which affects quality, instructions, procedures, and drawings are provided in the form of travelers and operation sheets. It is firmly believed that these documents (travelers and operation sheets) and the instructions, procedures, and drawings contained therein are of a type appropriate to the circumstances. Therefore, the requirements of Criterion V of Appendix B to 10CFR50 are being met.

3.2 PREVENTIVE MEASURES

None required. Combustion Engineering has issued process qualification specifications and reports for those activities defined in QC-15-14.

3.3 COMPLETION DATE

Not applicable.

4.0 NONCONFORMANCE 44.1 CORRECTIVE ACTION

The problem of the failure to place protector caps on a machine end of guide tubes was immediately brought to the attention of production supervision. The machinist who indicated completion of the operation via signature has been specifically counselled concerning this failure. Further, all machinists have been reminded of the general requirement for such protection of machined surfaces.

4.2 PREVENTIVE MEASURES

A quality assurance surveillance program for monitoring compliance with operation sheets in the fuel fabrication facility was established utilizing personnel from the Nuclear Power Systems Quality Systems Group. This will be an ongoing program.

4.3 COMPLETION DATE

The corrective action involving the counselling of machinists took place during the week of August 24, 1987. The establishment of the new quality surveillance program took place on October 28, 1987. As of this date, there have been 16 surveillance reports.

5.0 NONCONFORMANCE 55.1 CORRECTIVE ACTION

Production management had authorized that the doors to the stacking

5.1 (Cont'd)

and loading room could be left open when the air temperature in the room felt too cold and uncomfortable. A temporary shop instruction, TSI 152, was issued September 30, 1987 to authorize opening the doors when the temperature falls below 68°F. This TSI will be cancelled because Operation Sheet 510, "Load Fuel" will be revised to eliminate reference to the doors.

5.2 PREVENTIVE MEASURES

Not applicable.

5.3 COMPLETION DATE

Operation Sheet 510 to be revised by November 30, 1987.

1.0 RESPONSE TO ALLEGED PLACING OF OVERSIZED PELLETS INTO ACCEPTABLE PELLETS TRAYS

- 1.1 In view of the seriousness of the allegation, Combustion Engineering mounted an investigation to address the matter of malfeasance. A board of inquiry, composed of a team of management personnel and the president of the bargaining unit, interviewed all grinder operators and inspectors, with the exception of one operator who was and still is on extended sick leave. Management also interviewed all production and inspection supervisors who were involved in pellet grinding and inspection. Upper management interviewed the alleged, whose name inadvertently became known to Combustion Engineering. The interviews took place on a number of days between August 26, 1987 and October 15, 1987.

The result of the interviews, as related to the allegations, was that no one except the alleged had ever seen anyone adding pellets from the oversized tray to the acceptable trays. No one, including the alleged, had ever participated in this practice.

The results of the complete investigation, including the names of the participants, are considered confidential and are on file at Combustion Engineering.

2.0 RESOLUTION OF THE FUEL PELLETS DIMENSIONAL PROBLEM

- 2.1 Combustion Engineering presented an engineering analysis of the fuel pellet dimensional anomalies to the NRC in Washington, DC on September 24 and 25, 1987. The analysis presented indicated that there was no performance or safety issue.
- 2.2 Combustion Engineering believes that a combination of insufficient pellet grinder maintenance, insufficient roller micrometer maintenance, insufficient calibration of the roller micrometer, and a non-rigorous pellet diameter sampling procedure was the root cause of the problem with out-of-tolerance fuel pellets. All of these conditions have been rigorously corrected and have been demonstrated to utility quality representatives.