Transamerica Delaval

Transamerica Delaval Inc.
Engine and Compressor Division
550 85th Avenue
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Oakland, California 94621
(415) 577-7400

October 6, 1981

U.S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

Docket No.: 99900334/81-02

Attention: Mr. Uldis Potapous, Chief

Gentlemen:

Please refer to your letter of September 18, 1981. This letter covered the inspection made by Mr. W. E. Foster on July 13-17, 1981 at our facility in Oakland, California.

Attached are our responses to your notice of nonconformance A, B, C, and D. On nonconformance A, we have given our corrective action, preventative action and completion date as you requested.

We ask that you reconsider items B, C, and D in light of our attached comments and rule that items B, C, and D are, in fact, in conformance with 10CFR50B.

If you require any additional information, please contact me.

Sincerely,

R E Boyer

R. E. Boyer, Manager
Quality Assurance

REB:cjb

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A.1. Nonconformance

The parts lists and component drawings released by Engineering had not defined the acceptance criteria of the installed crankshaft oil plugs. Further, the route sheet that provided instructions for installation of the oil plugs contained no acceptance criteria.

Corrective Action

The drawings which show the installation of the oil plug were revised September 2, 1981. The drawing now gives acceptance criteria. The route sheet for the crankshaft assembly has been revised to give acceptance criteria for the installation of the oil plugs. This revision was completed July 30, 1981.

Preventative Action

Corrective Action Request #085 was written on July 21, 1981 to the Engineering Department. This request described the nonconformance, the cause, and a recommended corrective action. It was closed August 29, 1981. Corrective Action Request #086 was written on July 22, 1981 to the Industrial Engineering Department. This request described the nonconformance, the cause, and a recommended corrective action. It was closed September 21, 1981. A training class was held October 1, 1981 with Industrial Engineering and Engineering on 10CFR50B, Criterion V, our Quality Assurance Manual, paragraphs 5.1.2 and 5.3.2. This class covered the nonconformance, the corrective action, and the related procedures to prevent reoccurrence.

A.2. Nonconformance

The Route Sheet instructions at Element C did not provide details for the swaging operation of the crankshaft oil plugs.

Corrective Action

The Route Sheet for the crankshaft assembly has been revised to give details for the oil plug swaging operation. The revision was completed on July 30, 1981.

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A.2. Nonconformance - Cont'd

Preventative Action

Corrective Action Request #086 and the training class mentioned in A.1. above also covers this nonconformance.

Completion Date: October 1, 1981.

B. Nonconformance (Criteria XII, 10CFR50B)

Measures were not established to assure that tools used in the crankshaft oil plug installation are properly controlled and adjusted at specified periods to maintain accuracy within the necessary limits.

Comments

Criteria XII is entitled "Control of Measuring and Test Equipment," the criteria states: "Measures shall be established to assure that tools, gauges, instruments, and other measuring and testing devices used in activities affecting quality are properly controlled, calibrated, and adjusted at specified periods to maintain accuracy within necessary limits." We feel this criteria applies only to measuring and test equipment. The tool in question is an installing tool and does not come under this criteria.

For general information, I will elaborate on our installation of the crankshaft oil plug. The tool used to install the oil plug is controlled by the foreman of the department that installs the plugs. The tool is adjustable and is set each time it is used by the operator. Any wear of the tool would be compensated for by this adjustment. The nature of the tool is such that wear would be very minimal.

The original design of the tool had a nylon washer on the bottom to prevent marking of the plug. Actual use of this tool has shown that this washer cannot contact the plug so it has been removed. The only other items used in installing this plug is a hydraulic pressure source and a pressure gauge. The pressure gauge is a controlled gauge and was reviewed by the NRC auditor with no comments.

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B. Nonconformance - Cont'd

The inspection of the completed oil plug installation is also an inspection of the proper operation of the tool. We request that you re-evaluate this nonconformance after reviewing the above information. We feel we are in conformance with 10CFR50B and our Quality Assurance Manual in this matter.

C. Nonconformance

Records had not been maintained to furnish evidence that the motors for the auxiliary lube oil and jacket water pumps had been environmentally qualified.

Comments

Specification 9645-M-018.0, requires that motors be supplied in accordance with Appendix O. Paragraph 6.3 of Appendix O addresses service conditions relative to pressure, temperature, relative humidity, and radiation, but does not give specific values. Appendix O was included as part of our Purchase Specifications. Paragraph 5.1 of the specification gives the following environmental conditions:

Temperature, F	65 to 120
Pressure, PSIG	Atmospheric
Relative Humidity, %	10 to 90
Radiation Dosage, RADS	None

We furnished continuous duty, totally enclosed, fan cooled, 60°C (140°F) rise motors. These motors comply to the environmental conditions of the specifications. This information is contained on the nameplates of the motors and was also on the test reports we submitted to Bechtel.

Appendix O, paragraph 4.1 is very specific on codes and standards that the equipment must be designed, built, rated and tested to. There were no references to IEEE 323, 334, or 344. The only reference to IEEE 323, 344 was in Specification 9645-M-018.0, paragraph 4.1.

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C. Nonconformance - Cont'd

The paragraph reads, "Design, materials, manufacture, examination, testing, inspection, stamping, certification, and documentation shall conform to applicable portions of the latest issue of the following adopted or tentative specifications, standards, codes, and addenda, as applicable."

IEEE 334 is the IEEE standard for type testing continuous duty, Class 1E motors for nuclear power generating stations, but neither paragraph 4.1, nor Appendix 0, made any reference to IEEE 334.

The IEEE standards were not established for environmental qualification, but were intended to provide guidance for demonstrating the qualification of Class 1E equipment including components or equipment of any interface whose failure could adversely affect the performance of Class 1E systems and electric equipment. The specifications were very specific for the electrical panels and the generator; therefore, those components were qualified to IEEE 323 and 344 standards. The specifications did not give IEEE standards for motors and therefore they were not supplied to IEEE.

The statement, "Most stringent requirements shall apply" has been taken out of context. The statement actually reads, "Conversely, when the requirements of the specifications are interpreted by the Seller to be less stringent than code requirements, the most stringent requirements shall apply." This statement is paragraph 4.3 of the Specification 9645-M-018.0. There were no requirements of Appendix 0 for IEEE 323 or 344.

With the above actions we have provided motors in direct conformance to specification 9645-M-018.0 and Appendix 0 requirements. Our documentation has been provided through nameplate rating information and test reports for the service conditions. The motors have been seismically tested by an independent lab with seismic reports submitted to Bechtel.

We request that you re-evaluate this nonconformance after reviewing the above information. We feel we are in compliance with 10CFR50B, our Quality Assurance Manual and the jobs specifcations.

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D. Nonconformance

Documentary evidence was not available to assure that the Seller of the motors, for the auxiliary lube oil and jacket water pump had complied with the requirements of the purchase order.

Comments

Our purchase order to Allis-Chalmers states: "Allis-Chalmers to certify that manufacture is in accordance with Allis-Chalmers Technical Specifications as outlined for IEEE 323, 334, and 344 motor requirements."

We have two letters from Allis-Chalmers dated August 20, 1976 and July 23, 1976. These letters were reviewed by the NRC auditor during the inspection of July 13-17, 1981.

The July 23, 1976 letter states, "The motors we have supplied on these three orders (62572) are of equal quality and built to the same high manufacturing specifications as the Q.A. motors you have on order will be built." (The Q.A. motors referred to were IEEE motors for another contract.)

The August 20, 1976 letter states, "On the Delaval order mentioned above, (62572), the motors supplied are physically, dimensionally and performance wise no different than the motors that will be built to meet the Class 1E requirements of IEEE 323, 333, and 344. The only difference will be the documentation and quality program supplied with the Class 1E motor."

These two letters document compliance of the motor manufacture to our purchase order.

We request that you re-evaluate this nonconformance after reviewing the above information. We feel that we are in compliance with our Quality Assurance Manual, 10CFR50B, and the job specifica ions.