

# WOLF CREEK

NUCLEAR OPERATING CORPORATION

Bart D. Withers  
President and  
Chief Executive Officer

August 29, 1989

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U. S. Nuclear Regulatory Commission  
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U. S. Nuclear Regulatory Commission  
Region IV  
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Subject: Docket No. 50-482: 10 CFR 21 Notification Concerning  
Masoneilan Certification of Replacement Electrical Parts

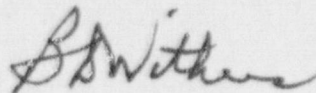
Gentlemen:

This letter is being submitted pursuant to 10 CFR 21.21(b)(2) as a follow-up to a telephone call between K. R. Petersen, Wolf Creek Nuclear Operating Corporation (WCNOC) and D. M. Hunnicutt, NRC on August 25, 1989.

WCNOC has determined that Masoneilan could not provide a basis for certifying conformance to WCNOC purchase order requirements for certain spare/replacement electrical parts for nuclear service control valves. As explained in the attached evaluation, this deviation is considered to be reportable as a defect pursuant to 10 CFR 21.

If you have any questions concerning this matter, please contact me or Mr. O. L. Maynard of my staff.

Very truly yours,



Bart D. Withers  
President and  
Chief Executive Officer

BLW/jad

Attachment

cc: B. L. Bartlett (NRC), w/a  
E. J. Holler (NRC), w/a  
D. V. Pickett (NRC), w/a

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10 CFR 21 Notification Concerning Masoneilan  
Certification of Replacement Electrical Parts

In 1988, Wolf Creek Nuclear Operating Corporation (WCNOC) attempted to procure spare NAMCO limit switches (model EA170-51100) from Masoneilan. When Masoneilan placed the order with NAMCO for the model EA170-51100 switches, NAMCO refused to certify the switches as being similar in design and materials to the switch ordered in the construction of Wolf Creek Generating Station (WCGS). NAMCO informed Masoneilan that NAMCO model EA170-51100 was not the correct model designation for the equipment being purchased and that the switch that was qualified was model EA170-51302. NAMCO could not certify the model EA170-51100 switch as a replacement switch because of a lack of traceability for the standard off the shelf switches. NAMCO stated that there is no Appendix B control of drawings and bills of materials for the standard switches. Masoneilan conveyed this to WCNOC along with the fact that Masoneilan had previously certified similar spare switches (model EA170-11100) for use at WCGS.

Upon discovery of this situation, WCNOC reviewed the procurement history of limit switches supplied by Masoneilan. During the construction phase at WCGS, several control valves were procured from Masoneilan (Dresser Industries, Inc., Masoneilan North American Operations, 85 Budwell Street, Avon, MA 02322) for use at WCGS. These control valves, which contained NAMCO limit switches (model EA170-11100), were environmentally and seismically qualified by Masoneilan in accordance with IEEE 323 and 344. Subsequently, model EA170-11100 NAMCO limit switches were ordered for WCGS as spares and supplied by Masoneilan. Five purchase orders with Masoneilan to order spare limit switches (model EA170-11100) were found in which a total of 97 switches were procured. Although, during contract negotiations, Masoneilan indicated the switches were commercial grade items, Masoneilan certified the switches as qualified per IEEE 323 and 344. Furthermore, this certification was to the purchase orders, which also invoked 10 CFR 50 Appendix B and 10 CFR 21. Prior to the 1988 procurement, the Masoneilan program appeared to adequately control spare parts procurement. This was based on the Masoneilan certification and on a sampling evaluation of Masoneilan certifications during onsite audits and surveillances of other material procurements. However, based on the disclosures discussed above, coupled with results of recent WCNOC surveillances, WCNOC has determined that there is a lack of design control and material traceability associated with these switches. Therefore, WCNOC considers Masoneilan's past certification of model EA170-11100 switches supplied as spares to be in error.

Further review of Masoneilan procurements has determined that five of the 97 switches were issued to the field for use in four control valves. In order to determine acceptability of the switches which are installed at WCGS, an engineering evaluation was conducted to determine the acceptability of using the switches already installed in the four control valves. This evaluation determined that the installed switches were acceptable for interim use until qualified replacement switches are installed. To prevent further switches from being issued to the field, the switches procured from the five purchase orders have been put on QC hold until an evaluation can be conducted to determine the final disposition for these switches.



Subsequent to the discovery of the improper certification of NAMCO limit switches by Masoneilan, WCNO's Supplier/Materials Quality organization conducted a surveillance program on Masoneilan. WCNO concluded that for spare parts procured by Masoneilan and further conditioned through additional manufacturing processes or assembly, that adequate design controls exist as verified during previous audits and surveillances. However, for spare parts that do not require further conditioning, such as NAMCO limit switches and ASCO solenoid valves, the controls evaluated were inadequate. The purpose of this surveillance program was to evaluate the design and materials control of spare/replacement parts for nuclear service control valves supplied to WCGS by Masoneilan. During the surveillance program, design documents were evaluated, receipt inspection activities were witnessed, and the documentation associated with certain procurement documents was evaluated.

This surveillance program showed that Masoneilan could not present objective evidence of design control nor provide a basis for certifying conformance to WCNO purchase order requirements for certain spare/replacement electrical parts for nuclear service control valves. The specific parts in question are NAMCO limit switches (model EA170-11100) and ASCO Solenoid Valves. The surveillances showed that Masoneilan could show evidence of design control and a basis for certifying conformance for all other spare/replacement parts audited and therefore corrective steps could be limited to the spare/replacement electrical parts. In order to assess the safety significance of procuring these items from Masoneilan, a review was performed by WCNO to determine if any of the NAMCO switches or ASCO Solenoid Valve replacements were installed at WCGS. This review determined that only the five NAMCO EA170-11100 switches discussed above are installed at WCGS. The remaining NAMCO switches and ASCO Solenoid Valves have been put on hold in the warehouse to prevent them from being used in the future.

Since the electrical spare/replacement parts discussed above were incorrectly certified by Masoneilan, this situation has been determined to be a deviation from the technical requirements of the procurement document as defined in 10 CFR 21. As a deviation which could have created a substantial safety hazard, it is considered to be reportable as a defect pursuant to 10 CFR 21.