

Limitorque®

Limitorque Corporation

Dan P.

Automated Valve Actuators and Jacks for Industry

5114 Woodall Road P.O. Box 11318 Lynchburg, VA 24506-1318
Telephone—804-528-4400 • Telex—82-9448 • FAX—804-845-9736



October 20, 1989

U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: Limitorque Corporation
Part 21 Notification

Subject: MAC Diagnostic System

Attention: Director, Nuclear Reactor Regulation

Gentlemen:

Pursuant to the requirements of Title 10 of the Code of Federal Regulations Part 21 herein provided is notification of potential inconsistencies in the MAC Diagnostic System software, as detailed in the attached letter. In order to expedite the notification of the facilities affected, Limitorque has made simultaneous written notice to both the commission and the attached list of nuclear utility customers.

Signed:

I. E. Wilkinson
Vice President of Engineering

LIMITORQUE CORPORATION

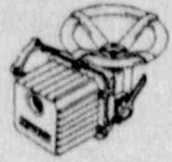
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SUBJECT: 10 CFR Part 21 Notification

Be advised that Limitorque has concluded its evaluation of the reported incident at Carolina Power & Lights' Brunswick Station and determined that it does represent the potential for a failure of equipment to perform under designed conditions. Therefore, pursuant to the requirements of 10 CFR Part 21, herein is provided notification of a defect in Limitorque supplied equipment.

Identification Of Basic Component

The MAC diagnostic system software contains correlation equations which convert the spring pack force load cell measurement to an output torque value. The correlation equations were developed in a testing program where actual output torque and spring pack force were measured on various size Limitorque actuators.

Nature Of The Defect

As a result of testing data collected at Carolina Power & Lights' Brunswick Plant, Limitorque found certain inconsistencies in the MAC software output torque values for SMB, SB, and SBD size 3 actuators. The result is that the output torque values provided by MAC under-predict the output torque, torque switch settings selected based on this test data could potentially lead to an insufficient amount of output torque available to meet design requirements.

Equipment Effected

The equipment in question is all MAC torque test data for SMB, SB, and SBD size 3 actuators.

Licensee Corrective Action

The licensee is to review all SMB, SB, and SBD size 3 MAC torque test data using MAC software version 2.96 to insure that the torque switch settings meet the valve design requirements.

Limitorque Corrective Action

Limitorque has performed additional correlation testing on the SMB, SB, and SBD size 3 to verify the correct relationship between output torque and spring pack force. The MAC software was revised to include the correct correlation equation for the size 3 actuator, the revised software is version 2.96. We have also reviewed all of the test data for the other MAC correlation equations to verify their accuracy.

A copy of this notification has been sent to the NRC under a separate cover letter.

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Part 21 Notification

This Part 21 Notice is being sent to the licensing or quality assurance department of each of the MAC owners. A copy of this Notice with a copy of the 2.96 software and instructions are also being sent directly to our contact in the maintenance department.

Signed:

A handwritten signature in black ink, appearing to read "I. E. Wilkinson", with a long horizontal flourish extending to the right.

I. E. Wilkinson
Vice President of Engineering

LIMITORQUE CORPORATION

cc: Mr. Mignogna
Mr. Kornsey
Part 21 Notification File

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