



ITT Barton

ITT Fluid Technology  
Corporation

March 14, 1995

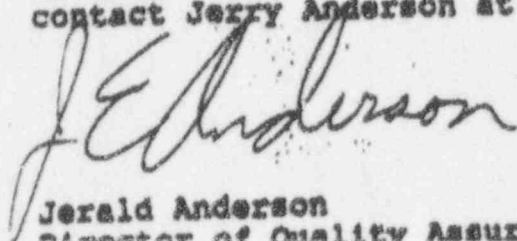
New York Power Authority  
P.O. Box 41  
Lycoming, NY 13093

ATTENTION: R. Lawton  
Q.A. Engineer

SUBJECT: Industry Notification of B-Fill Qualification  
Limitations

The attached Industry Advisory is being provided for your information. Our records indicate that you have purchased Model Number 200, Model Number 227A, Model 288A and Model Number 289A Indicators/Indicating Switches with B-Fill within the past 10 years.

If there are any questions regarding this notification, please contact Jerry Anderson at (818) 961-2547.



Jerald Anderson  
Director of Quality Assurance

Attachment

900 South Turnbull Canyon Road, P.O. Box 1882, City of Industry, CA, USA 91749-1882  
Telephone (818) 961-2547 Fax (818) 333-7241

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PDR ADOCK 05000333  
S PDR



## LONG ISLAND LIGHTING COMPANY

SHOREHAM NUCLEAR POWER STATION

P.O. BOX 610, NORTH COUNTRY ROAD • WADING RIVER, N.Y. 11792

Direct Dial Number

(516) 929-8300 ext. 3456

March 23, 1995

SSD 95-106

Quality Control Manager  
New York Power Authority  
J. A. Fitzpatrick Nuclear Plant  
PO Box 41  
Lycoming, NY 13093

Subject: ITT Barton Model 289A B-Fill Qualification Limitations

Dear Sir:

Please find enclosed a copy of a 10CFR Part 21 Notification which was recently received by the Long Island Lighting Company (LILCO) from ITT Barton. This notification addresses B-Fill Qualification Limitations.

The New York Power Authority recently purchased such a switch from LILCO under NYPA Purchase Order No S 95 69163, dated 2/1/95.

This notification is being transmitted to you in accordance with the guidelines set forth in 10CFR Part 21 of Federal Regulations.

If you have any questions, please contact me at (516) 929-8300, extension 3456.

Timothy F. Cuft, Manager  
Shoreham Salvage Division

TPC:rm

cc: J. Gilliard  
A. Zagel  
W. Guidi  
file: ead95106.ltr



W. Barton  
ITT Fluid Technology  
Corporation

March 14, 1995

Long Island Lighting Company  
LILCO, Shorham Nuclear Facility  
P.O. Box 528  
North Country Road  
Wading River, NY 11792

ATTENTION: Tim Curt  
LILCO Site Salvage Division Manager

SUBJECT: Industry Notification of B-Fill Qualification  
Limitations

The attached Industry Advisory is being provided for your information. Our records indicate that you have purchased Model Number 200, Model Number 227A, Model 288A and Model Number 289A Indicators/Indicating Switches with B-Fill within the past 10 years.

If there are any questions regarding this notification, please contact Jerry Anderson at (818) 961-2547.

Jerald Anderson  
Director of Quality Assurance

Attachment

# ITT BARTON INDUSTRY ADVISORY

(March 13, 1995)

## RADIATION LIMITATIONS OF B-FILL

ITT Barton supplies Model 200 and Model 227A Differential Pressure Indicators and Model 288A and Model 289A Differential Pressure Indicating Switches to the commercial nuclear power industry with mild environment IEEE-323/344 qualifications which includes radiation exposures to 3 Mrads (TID gamma) where required. In the past, when a Customer has specified low temperature (< 40 °F) installation for these type of instruments, ITT Barton has recommended using a bellows fill fluid consisting of an aqueous solution of ethylene glycol (B-fill) as long as the radiation levels associated with the installation are less than 1 Mrad (TID gamma). ITT Barton has performed testing demonstrating the suitability of B-fill for nuclear service where radiation levels do not exceed 1 Mrad (TID gamma). However, as a result of internal reviews, it has come to our attention that we have not completely identified the radiation limitations of B-fill to our Customers.

Our testing has shown that aqueous solutions of ethylene glycol tend to disassociate under gamma radiation exposures in excess of 1 Mrad. The products of this disassociation includes methane and hydrogen gas, which when trapped inside the differential pressure unit bellows, prevents reliable response of the instrument to differential pressure changes.

This Industry Advisory is applicable only to B-fill configurations of ITT Barton Model 200 and 227A indicators qualified under ITT Barton Qualification Report R3-227-2, and Model 288A and 289A indicating switches qualified under ITT Barton Qualification Reports R3-288A-1 or R3-288A-13. These Products (specified Model Numbers), supplied with D-fill (demineralized water) or M-fill (hydrocarbon oil), are not a concern as these fill fluids have been tested and found to be suitable for nuclear service installations with radiation exposures to 3 Mrads consistent with the Qualification Report conditions and the supplied Certifications of Qualification.

Questions regarding this issue should be addressed to J. Anderson, Director of Quality Assurance at (818) 961-2347.

PRIORITY ATTENTION REQUIRED MORNING REPORT - REGION I APRIL 10, 1995

Licensee/Facility:

Notification:

New York Power Authority  
Fitz Patrick 1  
Lycoming, New York  
Dockets: O-333  
BWR/GE-4

MR Number: 1-95-0053  
Date: 04/10/95  
SRI PC

Subject: POTENTIAL FAILURE OF ITT BARTON DIFFERENTIAL PRESSURE INDICATORS  
AND SWITCHES

Reportable Event Number: N/A

Discussion:

The licensee was notified by ITT Barton that Models 200, 227A, 288A, and 289A differential pressure instruments manufactured with "B-Fill" fluid may not function if subjected to a radiation field greater than 1 million rads (1 Mrad). For low temperature applications the manufacturer has recommended using an instrument with a bellows filled with an aqueous solution of ethylene glycol (B-fill). Testing by ITT Barton has shown that aqueous solutions of ethylene glycol tend to disassociate under gamma radiation exposures in excess of 1 Mrad. As a result of internal reviews, the manufacturer has determined that not all of its customers were made aware of the radiation limitations of B-fill fluid.

The licensee reviewed its records and located seven instruments in four safety related systems. An operability determination by the licensee concluded that the affected systems were capable of performing their required safety functions. Long term evaluation is in progress. The licensee is evaluating Part 21 reportability.

Regional Action:

Normal resident followup.

Contact: Ricardo Fernandes (315)342-4907  
William Cook (315)342-4907