

SSINS No.: 6835
Accession No.:
8202040107
IN 82-04

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
WASHINGTON, D.C. 20555

March 10, 1982

IE INFORMATION NOTICE NO. 82-04: POTENTIAL DEFICIENCY OF CERTAIN AGASTAT E-7000
SERIES TIME-DELAY RELAYS

Description of Circumstances:

On February 2, 1982, the Control Product Division, Amerace Corporation informed the U.S. Nuclear Regulatory Commission that approximately 20 percent of their AGASTAT E-7000 Series time-delay relays manufactured during the period between July 15, 1981, to January 12, 1982, may not operate properly.

Quality Assurance tests performed to ascertain acceptable performance over extended time periods have determined that the pneumatic timing diaphragm manufactured by one of two diaphragm suppliers exhibited a bleed-out of a fluid substance as a function of time and temperature. This substance may affect the diaphragm seal on the relays operated at high temperatures for extended periods, resulting in shorter time delays than those set on the relay dial. Although the temperature required to initiate significant bleed-out would not be encountered in the majority of these relay applications, it is within the range of nuclear safety qualification tests required by IEEE-323 and IEEE-344.

In a letter dated February 2, 1982, the Control Products Division of Amerace Corporation requested users to return all of the discussed relays for inspection and possible replacements. Copies of the letter and a list of the users are enclosed. The Control Products Division records do not identify individual nuclear power plants because most shipments were made to nuclear steam supply system (NSSS) suppliers, vendors, panel manufacturers, architect engineers, and utilities.

This information notice is provided as an early notification of a potentially significant matter. It is expected that recipients will review the information for possible applicability to their facilities and take appropriate action as necessary. No specific action or response is required at this time. If you have any questions regarding this matter, please contact the Regional Administrator of the appropriate NRC Regional Office.

Attachment:

List of customers to whom applicable relays were shipped

8202040107

February 2, 1982

In accordance with 10CFR21 we are notifying you and the NRC of the following situation regarding some of the Agastat E7000 Series time-delay relays manufactured between the 24th week of 1981 and the 3rd week of 1982.

Extended-performance Quality Assurance tests have determined that pneumatic timing diaphragms manufactured by one of two diaphragm suppliers exhibit a time and temperature based, bleed-out of a fluid substance. This substance may affect the diaphragm seal on relays operated at high temperatures for extended periods, resulting in shorter time delays than those set on the relay dial.

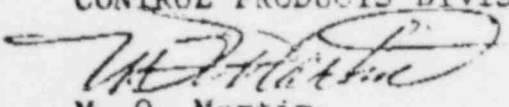
Relays containing diaphragms from this supplier constituted about 20% of our production and may have been shipped to fill your purchase order(s) as listed on the attached printout.

Although the temperature required to initiate significant bleed-out would not be encountered in the majority of normal product applications it is within the range of nuclear safety related qualification tests.¹ We are, therefore, asking you to return all E7000 relays from subject order(s), to my attention, for inspection and possible replacement. Serial numbers of all E7000 Series relays received by you during the time period concerned are attached.

Please acknowledge receipt of this notice. If you need assistance in returning the listed items, please contact me.

Yours very truly,

CONTROL PRODUCTS DIVISION



M. Q. Martin
Quality Assurance Manager

MQM/vf

¹IEEE 323 and IEEE 344

CUSTOMER NAMES

Attachment 1
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GENERAL ELECTRIC COMPANY
175 Curtner Ave M/C 016
San Jose, CA 95125
Attn: Jerrold B. Morris

GENERAL ELECTRIC COMPANY
Buckhorn Exit I85 - Rt 1374
P.O. Box 489
Mebane, NC 27302
Attn: QA Manager

L. K. COMSTOCK
P. O. Box 1094
Monroe, MI 48161
Attn: QA Manager

SOUTH CAROLINA ELECTRIC & GAS CO.
P.O. Box 764
Columbia, SC 29218
Attn: Mr. Sam Cash - QA Representative

AUTOMATIC SWITCH COMPANY
Hanover Road
Florham Park, NJ 07932
Attn: QA Manager

EATON CORPORATION
Cutler-Hammer Division
1349 Bryn Mawr Avenue
Itasca, IL 60143
Attn: QA Manager

NORTHERN STATES POWER COMPANY
414 Nicollet Mall
Minneapolis, MN 55401
Attn: QA Manager

VIRGINIA ELECTRIC POWER COMPANY
P. O. Box 537
Richmond, VA 23204
Attn: QA Manager

BROWN-BOVERI
GOULD INC.
4371 County Line Road
Chalfont, PA 18914
Attn: QA Manager

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GENERAL ELECTRIC COMPANY
P.O. Box 2149
1114 Old Concord Road
Salisbury, NC 28144
Attn: QA Manager

FLORIDA POWER CORPORATION
P.O. Box 14042
St. Petersburg, FL 33733
Attn: QA Manager

FLORIDA POWER CORPORATION
P.O. Box 219
Crystal River, FL 32629
Attn: Pam Mullins

FISCHBACK LORD ELECTRIC COMPANY
BOX 771
Hanford #2
Richland, WA 99352
Attn: Gordon Kittle, Purchasing Agent

WESTINGHOUSE ELECTRIC CORPORATION
SWITCHGEAR DIVISION
700 Braddock Avenue
E. Pittsburgh, PA 15112
Attn: A. S. Merrill, Switchgear Purchasing 10NN

COMSIP CUSTOMLINE
1418 E. Linden Avenue
Linden, NJ 07036
Attn: QA Manager

COLT INDUSTRIES
FAIRBANKS MORSE
701 Lawton Avenue
Beloit, WI 53551
Attn: QA Manager

PHILADELPHIA ELECTRIC CO.
P. O. Box 8699
2301 Market Street N3-2
Philadelphia, PA 19109
Attn: Designer in Charge

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BECHTEL POWER CORPORATION
P.O. BOX 60860
Terminal Annex
Los Angeles, CA 90060
Attn: QA Manager

FRANK ELECTRIC CORPORATION
P.O. Box 69
Willow Springs Lane Road #5
York, PA 17405
Attn: QA Manager

GENERAL ELECTRIC COMPANY
P. O. Box 488
Agency Road
Burlington, Iowa 52601
Attn: E. F. McMillan

TOLEDO EDISON COMPANY
300 Madison Avenue
Toledo, OH 43652
Attn: QA Director

INDIANA & MICHIGAN ELECTRIC CO.
P.O. BOX 60
Fort Wayne, IN 46801
Attn: QA Manager

RELIANCE ELECTRIC
4900 Lewis Road
Stone Mountain, GA 30083
Attn: Ms C. Eakin

MERCURY CO. OF NORWOOD, INC.
Subsidiary of Fischbach & Moore, Inc.
P.O. Box 1687
10 Burke Drive
Brockton, MA 02403
Attn: Lawrence P. Capron, QA Manager

NORTHEAST NUCLEAR ENERGY CO.
CONNECTICUT YANKEE ATOMIC POWER CO.
P.O. Box 270
Hartford, CT 06101
Attn: Norman Thomas (W24)

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LONG ISLAND LIGHTING COMPANY
Old Country Road
Mineola, NY 11530
Attn: QA Manager

BELOIT POWER SYSTEMS
DIVISION OF LITTON INDUSTRIES
555 Lawton Avenue
Beloit, WI 53511
Attn: Roger Churchill, Purchasing Agent

WISCONSIN PUBLIC SERVICE COMPANY
700 N. Adams Street
P.O. Box 700
Green Bay, WI 54305
Attn: Purchasing Department

SHOREHAM NUCLEAR POWER STATION
P.O. Box 618
North County Road
Wading River, NY 11792
Attn: Mr. B.R. McCaffray, Project Engineer
LILCO Project Office

AMERACE N.V.
P.O. Box 13
Industrielaan -
Ille Industriezone
9440 - EREMBODEGEM
Belgium
Attn: Mr. Rudy De Schaepmeester

SYSTEMS CONTROL CORPORATION
P.O. Box 788
NO US #2
Iron Mountain, MI 49801
Attn: QA Manager

HARLO CORPORATION
CONTROL PANEL DIVISION
4210 Ferry Street
Grandville, MI 49418
Attn: QA Manager

WESTINGHOUSE ELECTRIC CORPORATION
GENERAL CONTROL DIVISION
3900 West 41st Street
Chicago, IL 60632
Attn: QA Manager

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SOUTHERN CALIFORNIA EDISON COMPANY
% Bechtel Power Corporation
P.O. Box 450
San Clemente, CA 92672
Attn: MS Gail Walters, Field Purchasing

OMAHA PUBLIC POWER DISTRICT
1623 Harney Street
Omaha, NB 68102
Attn: QA Manager

FLORIDA POWER & LIGHT COMPANY
% Ebasco Backfit
P.O. Box 2108
Ft. Pierce, FL. 33450
Attn: QA Manager

VERMONT YANKEE NUCLEAR POWER
P.O. Box 157
Vernon, Vermont 05354
Attn: Greg Gillmore, Purchasing

VIRGINIA ELECTRIC & POWER CO.
SURRY POWER STATION
Route 650 Off HWY 10
Surry, VA 23883
Attn: Purchasing Agent

BECHTEL POWER CORPORATION
P. O. Box 384
Route 11 5 Miles NE of Berwick
Berwick, PA 18603
Attn: Mr. I. E. Booher

TENNESSEE VALLEY AUTHORITY
285 Haney Building
Chattanooga, TN 37401
Attn: QA Manager

COMSIP
3030 Red Hat Lane
Whittier, CA 90601
Attn: QA Manager

ALABAMA POWER COMPANY
P. O. BOX 2641
Birmingham, AL 35291
Attn: Mr. J.W. McGowan, QA Manager

CUSTOMER NAMES

GOULD
2002 Bethel Road
Finksburg, MD 21048
Attn: QA Manager

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