



265 FIELD ROAD, P.O. BOX 427, SOMERS, CT 06071-0427 PHONE 203-749-0761 TELEX 955485

October 11, 1982

Mr. Ronald C. Haynes  
Regional Administrator  
Region I NRC  
631 Park Avenue  
King of Prussia, PA 19406

Subject: Potential Substantial Safety Hazard Report

Reference: (a) 10 CFR 21  
(b) Telecon R. Dommers, Conval/Lee Bentenhause, NRC  
(10/8/82)

Enclosures: (1) Copies of letters sent to affected licensees  
(2) Typical drawing of CLAMPSEAL® valve

Gentlemen:

We wish to report under the provisions of reference (a), a material condition involving some of our CLAMPSEAL® valves supplied to licensees which could, under certain circumstances, result in failure of the valve to operate.

The condition is explained in the letters sent to the licensees, copies of which are enclosed. A review of our orders for safety related valves has been completed and those identified to the licensees are the only ones affected by this condition.

Conval has received reports and some parts returned from the field which alerted us to a galling problem. There have been no reports from nuclear plants. The most severe cases were observed to occur in fossil stations with steam temperatures above 600°F and pressures in the 2500 to 3500 psi range. The drawing, enclosure (2) illustrates the area of interest. We have determined that with a stellite guide area on the bonnet and a chrome plated stem, galling will not initiate even with considerable side thrust.

Conval is committed fully to assisting our customers in replacing the affected parts as soon as possible.

Very truly yours,

A handwritten signature in cursive script, reading "L. D. Isabelle".

L. D. Isabelle  
Quality Assurance Manager

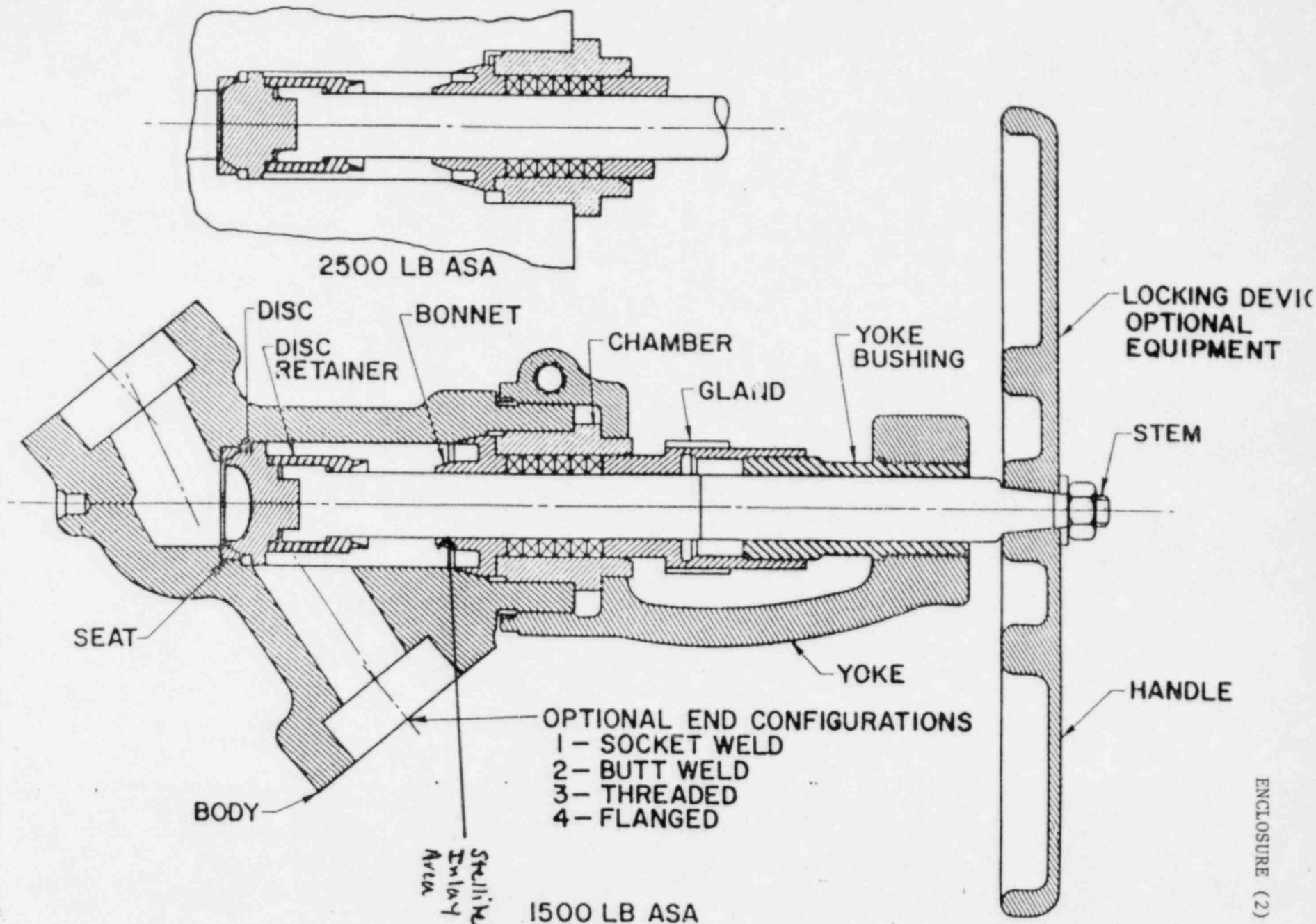
LDI:gm  
Enclosures

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CLAMPSEAL VALVES

IE19

# CLAMPSEAL VALVE - THREADED GLAND



ENCLOSURE (2)



265 FIELD ROAD, P.O. BOX 427, SOMERS, CT 06071-0427    PHONE 203-749-0761    TELEX 955485

October 11, 1982

Consolidated Edison Co. of New York, Inc.  
Indian Point Station  
Broadway & Bleakley Avenues  
Buchanan, N.Y. 10511

Subject: Conval Forged Valve - Report of Potential Galling of Stem to Bonnet

Attention: George Evans, Material Control

Gentlemen:

The following report is being made to you pursuant to the provisions of 10 CFR 21. Cognizant personnel have been previously contacted by telephone.

Conval has determined that in certain of our valves supplied with stem material of ASTM A582 416 stainless steel and bonnet material of Nitronic 60 (UNS S 21800), a galling action is possible between the stem and bonnet which could substantially increase operating torque and ultimately result in inability to operate the valve.

This combination of materials was supplied in our A105 carbon steel and A182-F22 valves of sizes 1 1/4" and larger during the period of February 1981 to August 1982. Prior to that period, our standard bonnet materials were Stellite 21 or Haynes 716 alloy which were not prone to galling. In late August 1982, Conval instituted design changes to both bonnet and stem to provide a Stellite 6 overlay on the bonnet guide area and a hard chrome plating on the stem. Our testing has shown that this combination of materials is not subject to galling.

The onset of galling requires repeated operation of the valve and is most likely to occur at higher temperatures and where significant side thrust is experienced on the stem. For this reason, we recommend that those safety-related valves which contain the 416/Nitronic 60 materials be serviced at the earliest opportunity, and that the stem and/or the bonnet be replaced with one of new design. Replacement of either part will eliminate the susceptibility for galling.

Conval has determined that those orders listed for your plant on the enclosure involved valves or parts with the affected material combination in probable safety-related service. Conval will supply replacement stems or bonnets and installation instructions as requested to meet your schedule.

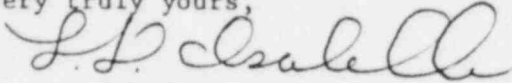
George Evans, Material Control  
Consolidated Edison Co. of New York, Inc.

October 11, 1982  
Page 2

Should you have questions or require further information, the following Conval personnel may be contacted:

L. D. Isabelle, Quality Assurance Manager  
R. W. Dommers, Manager, Sales & Marketing  
A. L. Smith, Product Engineer

Very truly yours,



L. D. Isabelle  
Quality Assurance Manager

LDI:gm  
Enclosure

cc: Kissick Company  
Attention: W. Kaestner



265 FIELD ROAD, P.O. BOX 427, SOMERS, CT 06071-0427    PHONE 203-749-0761    TELEX 955485

ENCLOSURE:

CONSOLIDATED EDISON - INDIAN POINT UNIT 2

<u>PURCHASE ORDER</u>	<u>CONVAL S.O.</u>	<u>DATE SHIPPED</u>	<u>ITEMS AFFECTED</u>
1770627	5810	09/11/81	1. 3 7G-416 Bonnet/Chamber Stock No. 1824853  2. 3 7G-416 Stem Assembly Stock No. 1824861
1770635	5811	10/05/81	2. 3 1 1/4" 12G2-105 (7G) Stock No. 1824846

BODY HEAT CODE: MF

SERIAL NOS.: ANZ6, ANZ18, ANZ11

Discussed with Mr. George Evans, 10/11/82.

101282/RWD:gm



265 FIELD ROAD, P.O. BOX 427, SOMERS, CT 06071-0427      PHONE 203-749-0761      TELEX 955485

October 11, 1982

Power Authority of the State of New York  
Indian Pt. Unit 3 Nuclear Pwr Plant  
P. O. Box 215  
Buchanan, N.Y. 10511

Subject: Conval Forged Valve - Report of Potential Galling of Stem to Bonnet

Attention: Resident Manager

Gentlemen:

The following report is being made to you pursuant to the provisions of 10 CFR 21. Cognizant personnel have been previously contacted by telephone.

Conval has determined that in certain of our valves supplied with stem material of ASTM A582 416 stainless steel and bonnet material of Nitronic 60 (UNS S 21800), a galling action is possible between the stem and bonnet which could substantially increase operating torque and ultimately result in inability to operate the valve.

This combination of materials was supplied in our A105 carbon steel and A182-F22 valves of sizes 1 1/4" and larger during the period of February 1981 to August 1982. Prior to that period, our standard bonnet materials were Stellite 21 or Haynes 716 alloy which were not prone to galling. In late August 1982, Conval instituted design changes to both bonnet and stem to provide a Stellite 6 overlay on the bonnet guide area and a hard chrome plating on the stem. Our testing has shown that this combination of materials is not subject to galling.

The onset of galling requires repeated operation of the valve and is most likely to occur at higher temperatures and where significant side thrust is experienced on the stem. For this reason, we recommend that those safety-related valves which contain the 416/Nitronic 60 materials be serviced at the earliest opportunity, and that the stem and/or the bonnet be replaced with one of new design. Replacement of either part will eliminate the susceptibility for galling.

Conval has determined that those orders listed for your plant on the enclosure involved valves or parts with the affected material combination in probable safety-related service. Conval will supply replacement stems or bonnets and installation instructions as requested to meet your schedule.

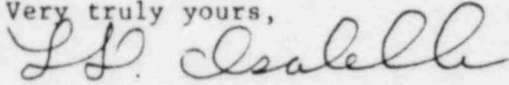
Resident Manager  
Power Authority of the State of New York

October 11, 1982  
Page 2

Should you have questions or require further information, the following Conval personnel may be contacted:

L. D. Isabelle, Quality Assurance Manager  
R. W. Dommers, Manager, Sales & Marketing  
A. L. Smith, Product Engineer

Very truly yours,



L. D. Isabelle  
Quality Assurance Manager

LDI:gm  
Enclosure

cc: Kissick Company  
Attention: W. Kaestner





265 FIELD ROAD, P.O. BOX 427, SOMERS, CT 06071-0427    PHONE 203-749-0761    TELEX 955485

ENCLOSURE:

POWER AUTHORITY OF STATE OF NEW YORK - INDIAN POINT 3

<u>PURCHASE ORDER</u>	<u>CONVAL S.O.</u>	<u>DATE SHIPPED</u>	<u>ITEMS AFFECTED</u>
81-IP-006 J.O. 9331	5915	10/27/81	5. 12 1 1/2" 12G2-105(7H)

BODY HEAT CODE: MF

SERIAL NUMBERS: ADH1  
ADH2  
ADH3  
ADH5  
ADH7  
ADH9  
ADH13  
ADH14  
ADH16  
ADH18  
  
AOW3  
  
AOY13

101282/RWD:gm

CLAMPSEAL VALVES





265 FIELD ROAD, P.O. BOX 427, SOMERS, CT 06071-0427    PHONE 203-749-0761    TELEX 955485

October 11, 1982

Yankee Atomic Electric Company  
Rowe, Massachusetts 01367

Subject: Conval Forged Valve - Report of Potential Galling of Stem to Bonnet

Attention: Station Superintendent

Gentlemen:

The following report is being made to you pursuant to the provisions of 10 CFR 21. Cognizant personnel have been previously contacted by telephone.

Conval has determined that in certain of our valves supplied with stem material of ASTM A582 416 stainless steel and bonnet material of Nitronic 60 (UNS S 21800), a galling action is possible between the stem and bonnet which could substantially increase operating torque and ultimately result in inability to operate the valve.

This combination of materials was supplied in our A105 carbon steel and A182-F22 valves of sizes 1 1/4" and larger during the period of February 1981 to August 1982. Prior to that period, our standard bonnet materials were Stellite 21 or Haynes 716 alloy which were not prone to galling. In late August 1982, Conval instituted design changes to both bonnet and stem to provide a Stellite 6 overlay on the bonnet guide area and a hard chrome plating on the stem. Our testing has shown that this combination of materials is not subject to galling.

The onset of galling requires repeated operation of the valve and is most likely to occur at higher temperatures and where significant side thrust is experienced on the stem. For this reason, we recommend that those safety-related valves which contain the 416/Nitronic 60 materials be serviced at the earliest opportunity, and that the stem and/or the bonnet be replaced with one of new design. Replacement of either part will eliminate the susceptibility for galling.

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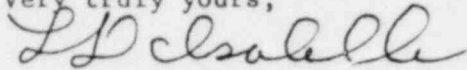
Station Superintendent  
Yankee Atomic Electric Company

October 11, 1982  
Page 2

Should you have questions or require further information, the following Conval personnel may be contacted:

L. D. Isabelle, Quality Assurance Manager  
R. W. Dommers, Manager, Sales & Marketing  
A. L. Smith, Product Engineer

Very truly yours,



L. D. Isabelle  
Quality Assurance Manager

LDI:gm  
Enclosure

cc: R. Durfee, Station Maintenance



265 FIELD ROAD, P.O. BOX 427, SOMERS, CT 06071-0427    PHONE 203-749-0761    TELEX 955485

ENCLOSURE:

YANKEE ATOMIC - ROWE

<u>PURCHASE ORDER</u>	<u>CONVAL S.O.</u>	<u>DATE SHIPPED</u>	<u>ITEMS AFFECTED</u>
288901	5447	02/27/81	1. 3 2" 12G2P-105 (8J) with Limitorque SMB-000-5 actuators. Ref: YR-EDCR 79-16-52

**NOTE:** Only 2 valves are affected. They are identified by **HEAT CODE "M"** on the body and serialized 1076 and 1077 respectively.

100232	6479	12/09/81 to 12/28/81	1. 4 2" 12G2-105 (8J) 2. 4 1 1/2" 12G2-105 (7H)
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ITEM 1: Body Heat Code "W".                      Serial Numbers: 1127-1130  
ITEM 2: Body Heat Code "MF".                     Serial Numbers: 1123-1126

Discussed with R. Durfee, Maintenance Supervisor, 10/7/82.

101282/RWD:gm



265 FIELD ROAD, P.O. BOX 427, SOMERS, CT 06071-0427    PHONE 203-749-0761    TELEX 955485

October 11, 1982

Maine Yankee Atomic Power Company  
Augusta, Maine 04336

Subject: Conval Forged Valve - Report of Potential Galling of Stem to Bonnet

Attention: C. Frizzle, Manager of Operations

Gentlemen:

The following report is being made to you pursuant to the provisions of 10 CFR 21. Cognizant personnel have been previously contacted by telephone.

Conval has determined that in certain of our valves supplied with stem material of ASTM A582 416 stainless steel and bonnet material of Nitronic 60 (UNS S 21800), a galling action is possible between the stem and bonnet which could substantially increase operating torque and ultimately result in inability to operate the valve.

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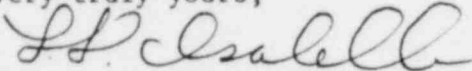
C. Frizzle, Manager of Operations  
Maine Yankee Atomic Power Company

October 11, 1982  
Page 2

Should you have questions or require further information, the following Conval personnel may be contacted:

L. D. Isabelle, Quality Assurance Manager  
R. W. Dommers, Manager, Sales & Marketing  
A. L. Smith, Product Engineer

Very truly yours,



L. D. Isabelle  
Quality Assurance Manager

LDI:gm  
Enclosure

cc: M. Veilleux, Plant Engr, Maine Yankee  
Griffith Assoc., Attention: L. Griffith



265 FIELD ROAD, P.O. BOX 427, SOMERS, CT 06071-0427    PHONE 203-749-0761    TELEX 955485

ENCLOSURE:

MAINE YANKEE STATION

<u>PURCHASE ORDER</u>	<u>CONVAL S.O.</u>	<u>DATE SHIPPED</u>	<u>ITEMS AFFECTED</u>
29446	5931	08/10/81 to 10/23/81	1. 7 2 1/2" 10G4-105 (8K) 600 lb. Y-globe

BODY HEAT CODE: 4 pcs. - "L"  
3 pcs. - "T"

SERIAL NUMBERS:    AJQ 4  
                          AKD 4  
                          AJQ 2  
                          AJQ 3  
                          ALZ 1  
                          ALZ 3  
                          ALZ 6

Discussed with M. Veilleux, Maine Yankee 10/8/82.

101282/RWD:gm



265 FIELD ROAD, P.O. BOX 427, SOMERS, CT 06071-0427      PHONE 203-749-0761      TELEX 955485

October 11, 1982

Virginia Electric Power Company  
Surrey Power Station  
P. O. Box 315  
Surrey, Virginia

Subject: Conval Forged Valve - Report of Potential Galling of Stem to Bonnet

Attention: R. Mudd, Supervisor of Maint. Services

Gentlemen:

The following report is being made to you pursuant to the provisions of 10 CFR 21. Cognizant personnel have been previously contacted by telephone.

Conval has determined that in certain of our valves supplied with stem material of ASTM A582 416 stainless steel and bonnet material of Nitronic 60 (UNS S 21800), a galling action is possible between the stem and bonnet which could substantially increase operating torque and ultimately result in inability to operate the valve.

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CLAMPSEAL VALVES



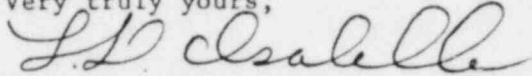
R. Mudd, Supervisor of Maint. Services  
Virginia Electric Power Company

October 11, 1982  
Page 2

Should you have questions or require further information, the following Conval personnel may be contacted:

L. D. Isabelle, Quality Assurance Manager  
R. W. Dommers, Manager, Sales & Marketing  
A. L. Smith, Product Engineer

Very truly yours,



L. D. Isabelle  
Quality Assurance Manager

LDI:gm  
Enclosure

cc: Berkness Control  
Attention: C. Inge



265 FIELD ROAD, P.O. BOX 427, SOMERS, CT 06071-0427    PHONE 203-749-0761    TELEX 955485

ENCLOSURE:

VIRGINIA ELECTRIC POWER CO. - SURRY STATION

<u>PURCHASE ORDER</u>	<u>CONVAL S.O.</u>	<u>DATE SHIPPED</u>	<u>ITEMS AFFECTED</u>
74302	6223	09/24/81	1. 4 1 1/2" 12G2-105 (7H) VEPCO Stock No. 2081812
94817	6920	07/26/82	1. 2 2" 12G2-105 (8J) VEPCO Stock No. 2080869

Discussed with Mr. Mudd, telecon 10/8/82.

101282/RWD:gm

CLAMPSEAL VALVES