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TERRY

Part of worldwide Ingersoll-Rand

Steam Turbine Division

Terry Corporation
P.O. Box 555 Lamberton Road
Windsor, Ct. 06095
(203) 688-8211 Telex 99-4495
Cable Terrysteam

February 22, 1984

U.S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Washington, D.C. 20555

Attention: Roger W. Woodruff

Reference: Auxiliary Feedwater Pump Drive Turbines
Gimpel NPS-4 T&T Valve Operation

Gentlemen:

We attach hereto a copy of a letter recently sent to those plants shown on the attached listing. In addition a notification with a listing of appropriate plant sites has been made to General Electric Nuclear Division in San Jose, CA with regard to affected units in BWR plants.

We trust that the enclosed is self-explanatory; however, if we can be of further assistance, please do not hesitate to contact us.

Very truly yours,

TERRY CORPORATION



Robert R. Theroux
Service Manager

RRT/nem
Att.

cc: R. Hebert - Windsor
K. Wheeler - Windsor

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Steam Turbine Division

**Terry Corporation
P.O. Box 555 Lambertson Road
Windsor, Ct. 06095
(203) 688-6211 Telex 99-4495
Cable TerrySteam**

February 3, 1984

Attention:

Reference: Auxiliary Feedwater Pump Drive Turbine/s

Gimpel NPS-4 T&T Valve Operation

Type:

Serial Number:

Gentlemen:

During testing at a power plant, it was noted that the 4" Gimpel T&T valve did not fully close under certain conditions. The conditions noted were high inlet pressure and low steam flow.

Review of the valve design with Gimpel Corporation revealed that the spring load in the closing direction is not sufficient to overcome the valve stem unbalance when the pressure below the valve seat exceeds approximately 700 psig.

This condition does not occur during normal operation while performing the design function. It can only occur at no load or near no load on the turbine when the governor valve is nearly closed resulting in low flow and low pressure drop across the T&T valve. Any increase in governor valve opening due to load increase or governor malfunction will result in the T&T valve closing fully.

Gimpel Corporation has made available a new spring which has sufficient force to overcome this stem unbalance with full rated pressure at all flow conditions.

Continued.....

Replacement springs with installation instructions will be made available by Gimpel free of cost through Terry. A \$75.00 charge for documentation will be made per shipment. Installation cost is user's responsibility.

Very truly yours,
TERRY CORPORATION

Robert R. Theroux
Service Manager

RRT/mem

cc: R. Hebert
K. Wheeler
Gimpel Machine Works

Virginia Electric & Power Co.
Surrey, VA 23883 J.L. Wilson, Station Manager Surrey Units 1 & 2 GS-2N 36318,
36319, 36320, 36321_

Sacramento Municipal Utility District
Clay, CA R.J. Rodriguez, Plant Manager Rancho Seco GS-2N T-37168A_

Northeast Utilities Service Company
Waterford, CT 06385 J.J. Kelley, Jr., Plant Manager Millstone Unit
II GS-2N T-37273A_

Arkansas Power and Light Company
Russellville, Arkansas 72801 J.M. Levine, General Manager Arkansas Nuclear One
- Unit 2 GS-2N T-37665A_

Toledo Edison Company
Oak Harbor, Ohio 43449 T.D. Murray, Plant Supt. Davis-Besse Nuclear Pwr.
Sta. GS-2N T-37686A_

Louisiana Power and Light Company
Killona, LA 70066 R.P. Barkhurst, Plant Manager Waterford 3 Steam Elec.
Sta. GS-2N T-38280A_

Union Electrica-Fenosa
Almaraz, Caceres, Spain Jose M. Fernandez Mesa, Plant Manager Almaraz 1 &
2 GS-2N T-38467A/B_

Electricite de France
Villebois, Ain, France Plant Manager Bugey 2, 3 GS-2N T-38498A/B_

Northeast Utilities Service Company
Waterford, CT 06385 J.O. Crockett, Plant Manager Millstone III GS-2N T-38587A_

Tennessee Valley Authority
Spring City, TN 37381 W.T. Cottle, Plant Supr. Watts Bar 1 &
2 GS-2N T-38677A/B_

South Carolina Electric & Gas Company
Jenkinsville, SC 29065 O.S. Bradham, Station Manager V.C. Sumner
Station GS-2N T-38765A_

Furnas Centrais Electricas S.A.
Angra Dos Reis, Rio De Janeiro, Brazil Engr. Pedro J.D. Figueiredo, Plant
Manager Almirante Alvaro Alberto 1 GS-2N T-38848A_

Electricite de France
Villebois, Ain, France Plant Manager Bugey 4 & 5 GS-2N T-38880A/B_

Texas Utilities Generating Company
Glen Rose, TX 76043 R.A. Jones, Plant Manager Comanche Peak 1 &
2 GS-2N T-39622A/B_

Fuerzas Electricas de Cataluna S.A.
Asco, Tarragona, Spain J. Casellas, Plant Manager Asco 1 & 2 GS-2N T-39623A/B_

Duke Power Company
Rock Hill, SC 29731 J. Hampton, Plant Manager Catawba 1 & 2 GS-2N T-40096A/B_

Consumers Power Company
Midland, MI 48640 G. Slade, Manager Midland 1 & 2 GS-2N T-40225A/B_

Florida Power & Light Company
Hutchinson Island, FL 33034 C.M. Wethy, Plant Manager St. Lucie Unit
2 GS-2N T-40230A_

Nuklearna Elektrana Krsko
Krsko, Slovenia, Yugoslavia 68270 Dr. Janez Dular, Plant Manager Krsko Nuclear
Power Plant GS-2N T-40366A_

Arizona Public Service Company
Palo Verde, Arizona 85208 C. Andognini, VP Nuclear Operations Palo Verde 1, 2
& 3 GS-2N T-40568A/B/C_

Ebes N.V.
Beveren, Oost-Vlaanderen, Belgium H. Bosquet, Director Kerncentrale Doel
3 GS-2N T-40593A_

Houston Lighting and Power Company
P.O. Box 510
Wadsworth, TX 77483 G.L. Parkey, Supv. Proj. Engr. South
Texas GS-2N T-40749A/B_

Washington Public Power Supply System
Satop, Washington J.W. Wilson, Plant Manager Washington Nuclear Proj. 3 &
5 GS-2N T-40809A/B/C/D_

Taiwan Power Company
Heng Chun, Ping Tung Hsien, Taiwan C.Y. Chow, Supr. Maanshan 1 &
2 GS-2N T-40893A/B_

Intercom S.A.
Huy, Liege, Belgium L. Maesen, Plant Manager Tihange 2 & 3 GS-2N T-40814A,
T-42006A_

Southern California Edison Company
San Clemente, CA 92672 H. Ray, Plant Manager San Onofre Gen. Sta. 2,
3 GS-2N T-40101A/B_

Union Electric Company
Fulton, Missouri 65251 W.H. Weber, Plant Manager Callaway 1 GS-2N T-40176A_

Kansas Gas and Electric Company
Burlington, KS 66839 Plant Manager Wolf Creek Generating
Station GS-2N T-40177A_

Georgia Power Company
Vogtle Nuclear Stations
Burke Clunty, GA Plant Manager Vogtle 1 & 2 GS-2N T-41173A/B_

Arkansas Power and Light Company
Russellville, Arkansas 72801 J.M. Levine, General Manager Arkansas Nuclear One
- Unit 1 GS-2N T-42264A_

Carolina Power and Light Company
Raleigh, NC 27601 J.L. Willis, Plant Manager Shearon Harris 1 &
2 GS-2N T-41056A, T-41057A_

Public Service Company of New Hampshire
Seabrook, NH 03874 Don E. Moody, Station Manager Seabrook 1 &
2 GS-2N T-41062A, T-41063A_

Korea Electric Power Corporation
Kori Nuclear Power Division
Kyung Sang Nam-Do, Korea Kyung Shick Min, Site Director Korea Nuclear Units 5
& 6 GS-2N T-41482A/B_

Korea Electric Power Corporation
Kori Nuclear Power Division
Kyung Sang Nam-Do, Korea Kyung Shick Min, Site Director Korea Nuclear Units 7
& 8 GS-2N T-41930A/B_

Ebes N.V.
Beveren, Oost-Vlaanderen H. Bosquet, Director Kerncentrale Doel
4 GS-2N T-41170A_

National Power Corporation
Morong, Bataan, Phillipines A.T. Corpuz, Plant Manager Philippine Nuclear
Power Plant #1 GS-2N T-41172A_

Korea Electric Power
Kori Nuclear Power Division
Kyung Sang Nam-Do, Korea Kyung Shick Min, Site Director Korea Nuclear
2 GS-2N T-41171A_

Washington Public Power Supply System
P.O. Box 968
Richland, WA 99352 J.D. Martin, Manager WNP 1 & 4 GS-2N T-40349A/B_