

Industrial Valve Operation

Dresser Industries, Inc.

P.O. Box 1430 • Alexandria, Louisiana 71309-1430

May 18, 1990

U. S. Nuclear Regulatory Commission
Washington, DC 20555

Attention: Bob Pettis

Subject: 10CFR Part 21 Notification
Dresser's 1566 Hydroset New Valve Constant K Factors

Dear Mr. Pettis:

Enclosed is a list of utilities and the notification sent to those utilities that use Dresser's 1566 Hydroset (hydraulic setting device).

If you need further information, call me at 318-640-6112.

Respectfully,

J. P. Watz
Principal Quality Assurance Engineer

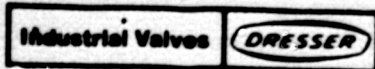
JPW:mm

Attachments

cc: B. G. Brunson, Quality Systems Manager
Y. S. Lai, Director of Engineering
R. D. Walsh, Jr., Chief Product Engineer
10CFR Part 21 File 90-01

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Dresser Industries, Inc.

P.O. Box 1430 • Alexandria, Louisiana 71309-1430

The below subject letter was mailed on May 17, 1990 to the attached list of names and addresses.

**Subject: 10CFR Part 21 Notification
1566 Hydroset New Valve Constant K Factors
Duke Power's Request to NRC Relating to New Constants**

Gentlemen:

This notification is to inform you of Duke Power Company's request to the U. S. Nuclear Regulatory Commission to amend their Technical Specification (TS) for Facility Operating License Nos. NPF-35 and NPF-52 for Catawba Nuclear Station Units 1 and 2. The amendment was to change the allowable tolerance value for the lift setting of the Steam Line Safety Valves for Unit 2 in Table 3.7-2 of the TS. The change was to be effective until the first forced outage, reactor trip, or refueling outage; at which time, Catawba Unit 2 would be brought into compliance with the original TS.

Duke Power's request to the NRC was made following receipt of a revised Valve Constant K Factor used in conjunction with Dresser's 1566 hydraulic setting device, which was used to establish the lift setting (opening point) of the steam line safety valves (Dresser 3700 series safety valve). Duke Power's recalculation of the lift settings for valves previously set to the old Hydroset Valve Constant K Factor yielded lift settings greater than allowed by their Technical Specification Table 3.7-2 for four valves.

Dresser is providing this notification information to allow you to perform an evaluation of what the difference in valve setpoint will be when using the new valve constants provided in the attached Dresser Engineering File No. GEN-90-22.

-Continued-

If you should need additional information, contact Dressers' Field Service Department, Terry Barnes, Nuclear Product Field Specialist (318-640-6057); or Mike Rydosz, Manager Field Service and Repair (318-640-6046).

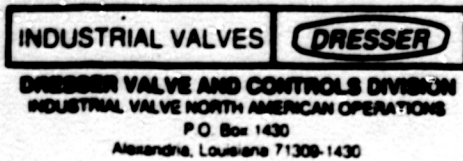
Respectfully,

John P. Watz
Principal Quality Assurance Engineer

JPW:mm

Attachment: File No. GEN-90-22

cc: Dresser 10CFR Part 21 File 90-01
Nuclear Regulatory Commission
M. N. Rydosz
T. W. Barnes
B. G. Brunson
Y. S. Lai



File No. GEN-90-22

SCOPE:

This notification only pertains to Dresser Consolidated steam safety valves that have been set or adjusted using the 1566-1 or -2 hydraulic setting devices.

BACKGROUND:

Dresser Consolidated 1566 Hydrossets are hydraulic devices that are used to set the opening pressure of steam safety valves. Steam Pressure under the safety valve is monitored. Then a lifting force, via the Hydraulic Pressure, is applied to the safety valve. The Hydraulic Pressure, and Steam Pressure measurements, along with a Valve Constant K are then used to determine the Set Pressure of the safety valve.

In August 1989, a refinement in the Valve Constant K factors used in setting Dresser Consolidated Maxiflow 1700, 3700 and 31700 series valves was made. These adjustments were based on additional valve tests.

ASSESSMENT:

The refinement of the valve constant K factors does not create a substantial safety hazard.

Changes in valve constants range from 0.2% to 4.0%. This change is applied only to the portion of the load that is hydraulically applied. Since a minimum of 50% of the load must be supplied by Steam Pressure, the maximum resultant difference in set points from the old to the new K values is 0.1% to 2.0%. If a higher inlet Steam Pressure was used, the percentage change in setpoint will be less.

This effect is not a safety concern since properly adjusted Consolidated safety valves achieve full lift before the rated overpressure conditions.

DETAILED EVALUATION:

To perform a detailed evaluation of what the difference in valve setpoint will be when using the new valve constants, the following information is required.

1. The Valve Type, Serial Number and Set Pressure.
 2. Inlet Steam Pressure when the valve was set.
 3. The Hydraulic Pressure when the valve was set.
 4. The Valve Constant K that was used during Hydrosetting, or the Hydraulic Setting Device Pressure Diagram drawing.
 5. The date on which the Hydrosetting was performed.
 6. The Hydroset serial number and calibration date at the time of setting.
- NOTE: Hydrosets require annual factory calibration.

FORMULA:


$$(\text{Set Pressure}) = K \times (\text{Hydraulic Pressure}) + (\text{Steam Pressure})$$

NEW VALVE CONSTANTS:

Valve Constants K

Orifice	Constant
1	4.667
2	3.302
K	2.588
3	1.885
5	1.443
4	1.223
N	1.134
6	0.706
7,Q	0.452
8	0.352
R	0.312

NOTE: These constants supercede any previous K constants or pressure diagram drawings.

 3.2.1990
Richard D. Walsh, Jr. P.E.
Chief Project Engineer

MAIL MERGE LIST OF
UTILITY/NUCLEAR POWER PLANTS
FOR 10 CFR PART 21 NOTIFICATIONS

May 17, 1990

Alabama Power Co.
Joseph M. Farley 1 & 2 *348-264*
600 N. 18th Street
Box 2641 Birmingham, Alabama 35291
Attn: Gen Mgr: D. N. Morey

Arizona Nuclear Power Project
(Arizona Public Service Co.) *528, 524, 530*
Palo Verde 1, 2, & 3
400 N. Fifth Street
Phoenix, Arizona 85004
Attn: Plant Mgr: J. G. Haynes

Arkansas Power & Light Co.
Arkansas Nuclear One (1) *315-318*
Rt. 3 Box 137 G.
Russellville, AR 72801
Attn: Exec Dir, ANO: J. Levine

Baltimore Gas & Electric
Calvert Cliffs 1 & 2 *317-318*
Maryland Route 2-4
Lusby MD 20657
Attn: Mgr. Nuclear Mnt: L. B. Russel

Boston Edison Co.
Pilgrim 1 *293*
600 Rocky Hill Road
Plymouth, Ma 02360
Attn: Plant Dir: K. L. Highfill

Carolina Power & Light Co.
Brunswick 1 & 2 *261/824/325*
P. O. Box 10429
Southport, NC 28461-0429
Attn: Mgr: R. B. Starkey

Commonwealth Edison.
Braidwood 1 & 2 *458/1057*
RR #1
P. O. Box 84
Bracefield, IL 60407
Attn: Plant Mgr: R. E. Querio

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MAIL MERGE LIST OF
UTILITY/NUCLEAR POWER PLANTS
FOR 10 CFR PART 21 NOTIFICATIONS

Commonwealth Edison
Byron 1 & 2
4450 Geerman Church
Byron, IL 61010
Attn: Plant Mgr: R. Ploniewicz

Commonwealth Edison
Dresden 1, 2, & 3
RR #1
Morris, IL 60450
Attn: Plant Mgr: E. D. Eenigenburg

Commonwealth Edison Co.
Quad Cities 1 & 2
22710 206 Ave N.
P. O. Box 216
Cordova, ILL 61242-9740
Attn: Plant Mgr: R. L. Bax

Consumer Power Co.
Palisades
27780 Blue Star Memorial Hwy
Covert, MI 49043
Attn: Plant Mgr: G. B. Slade

Detroit Edison
Fermi 2
6400 N. Dixie Hwy
Newport, MI 48166
Attn: Plant Mgr: D. R. Gipson

Duke Power Co.
Catawba 1 & 2
P. O. Box 256
Clover, SC 29710
Attn: Sta. Mgr: M. S. Tuckman

Duke Power Co.
OConor 1, 2, & 3
P. O. 1439
Seneca, SC 29679
Attn: Sta Mgr: M. S. Tuckman

Duquensne Light Co.
Beaver Valley 1
P. O. Box 4
Shippensburg, PA 15077
Attn: Gen Mgr. Plant Mgr: T. P. Noonan

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MAIL MERGE LIST OF
UTILITY/NUCLEAR POWER PLANTS
FOR 10 CFR PART 21 NOTIFICATIONS

Florida Power Corp.
Crystal River 3 *300*
Drawer 1240
Crystal River FL 32629
Attn: Plant Dir: P. F. McKee Jr.

Florida Power & Light
Turkey Point 3 & 4 *207/257*
P. O. Box 4332
Princeton, FL 33732-4332
Attn: Plant Mgr: C. J. Baker

GPU Nuclear Corp.
Three Mile Island *287/320*
Madison Avenue @ Punch Bowl Rd
Morristown, NJ 07960

Georgia Power Co.
Edwin Hatch 1 *321*
Rt. 1 Box 439
Baxley, GA 31513
Attn: Gen Mgr: H. C. Nix

GPU Nuclear Corp.
Oyster Creek 1 *219*
(Jersey Central Power & Light)
Madison Avenue @ Punch Bowl Road
Morristown NJ 07960

Houston Lighting & Power
South Texas Project 1 & 2 *448/449*
P. O. Box 1700
Houston, TX 77001
Attn: Plant Mgr. W. Kinsey

Illinois Power Co.
Clinton 1 *401*
P. O. Box 228
Clinton, IL 61727

Indiana & Michigan Light Co.
Donald C. Cook 1 & 2 *315/410*
1 Cook Pl.
Bridgman, Michigan 49106
Attn: Plant Mgr: W. G. Smith, Jr.

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MAIL MERGE LIST OF
UTILITY/NUCLEAR POWER PLANTS
FOR 10 CFR PART 21 NOTIFICATIONS

Iowa Electric Light & Pwr. Co.
Duane Arnold Energy Center
3277 DAEC Rd
Palo, IA 52324
Attn: Plant Superintendent: R. Hannen

Long Island Lighting Co.
Shoreham Nuclear Station
175 E. Old Country Rd.
Hicksville, NY 11801
Attn: Plant Mgr: W. E. Steiger

Louisiana Power & Light Co.
Waterford 3
SE Gen Sta
P. O. Box B Hwy B
Killona, La 70066
Attn: Plant Mgr: J. R. McGaha

Maine Yankee Atomic Power Co.
Maine Yankee
P. O. Box 408
Wiscasset, ME 04578
Attn: Plant Mgr: E. Thomas Boulette

Nebraska Public Power District
Coopr Nuclear Station
P. O. Box 98
Brownville, NE 68321
Attn: Div Mgr. Nuc Operator G. R. Horn

Niagara Mohawk Powr Corp.
Nine Mile Point 1
300 Erie Blvd. W.
Syracuse, NY 13202
Attn: Plant Super: K. Dahlberg

Niagara Mohawk Power Corp.
Nine Mile Point 2
300 Erie Blvd. W.
Syracuse, NY 13202

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MAIL MERGE LIST OF
UTILITY/NUCLEAR POWER PLANTS
FOR 10 CFR PART 21 NOTIFICATIONS

Northeast Utilities M
Millstone 1, 2, & 3
P. O. Box 128
Waterford, CT 06385
Attn: Sta Super: S. E. Scace

Northern States Power Co.
Monticello
412 Nicollet Mall
Minneapolis, MN 55401
Attn: Plant Mgr: W. A. Shamia

Northern States Power Co.
Prairie Island 1 & 2
412 Nicollet Mall
Minneapolis, MN 55401
Attn: Plant Mgr: E. L. Watzl

Omaha Public Power District
Fort Calhoun 1
P. O. Box 399
Fort Calhoun, NE 68023
Attn: Plant Mgr: W. G. Gates

Pacific Gas & Electric Co.
Diablo Canyon 1 & 2
P. O. Box 56
Avila Beach, CA 93424
Attn: Plant Mgr. J. D. Townsend

Philadelphia Electric Co.
Peach Bottom 2 & 3
RD#1 Box 208
Delta PA 17314
Attn: Plant UP: D. M. Smith

Public Service Company of Colorado
Fort St. Vrain
16805 Weld County Road 19-1/2
Platteville, CO 80651
Attn: Sta Mgr: C. Fuller

-Continued-

MAIL MERGE LIST OF
UTILITY/NUCLEAR POWER PLANTS
FOR 10 CFR PART 21 NOTIFICATIONS

Sacramento Municipal
Utility Distric (Smud)
Rancho Seco Nuclear *312*
6201 S. Street Box 15830
Sacramento, CA 95813
Attn: Chief Exec Officer: J. F. Firitt

South Carolina Electric & Gas Co.
Virgil C. Sumner 1
1426 Main Street *345*
Columbia SC 29218
Attn: plant Mgr: J. L. Skolds

Southern California Edison Co.
San Onofre 1
P. O. Box 128 *226*
San Clemente, CA
Attn: VP & Site Mgr: C. B. McCarthy

Tennessee Valley Authority
Watts Bar 1 & 2
400 W. Summit Hill Drive *344/341*
Knoxville, TN 37902
Attn: Plant Sup: J. L. McJunkin

Toledo Edison Co.
Davis Besse 1 *346*
5501 N. State Rte 2
Oak Harbor OH 43449
Attn: Plant Mgr. L. F. Storz

Vermont Yankee Nuclear Power
Vermont Yankee
Ferry RD 305 Box 169 *271*
Brattleboro, VT 05301
Attn: Plant Mgr: J. P. Pelletier

Virginia Electric & Power
Surry 1 & 2 *271/274*
5000 Dominion Boulevard
Glen Allen, Virginia 23060
Attn: Mgr: R. F. Saunders(Nuclear Licensing & Programs)

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MAIL MERGE LIST OF
UTILITY/NUCLEAR POWER PLANTS
FOR 10 CFR PART 21 NOTIFICATIONS

Virginia Electric & Power
North Anna 1 & 2 *337/337*
5000 Dominion Boulevard
Glen Allen, Virginia 23060
Attn: Mgr: R. F. Saunders (Nuclear Licensing & Programs)

Washington Public Power Supply System (WPPSS)
Nuclear Project 1 & 3
3000 George Washington Way *357/400*
P. O. Box 968
Richland, WA 99352

Wisconsin Public Service Co.
Kewaunee
Rt. 1 Box 48 *300*
Dewaunee, WI 54216
Attn: Mgr: C. R. Steinhardt

Yankee Atomic Electric Co.
Yankee Atomic Plant *27*
P. O. Box 8000
580 Main Street
Bolton MA 01740-0000
Attn: Plant Supt: N. N. St. Laurent