

Part 21 (PAR)

Event # 47539

<b>Rep Org:</b> DRESSER CONSOLIDATED	<b>Notification Date / Time:</b> 12/20/2011 14:26 (EST)
<b>Supplier:</b> DRESSER CONSOLIDATED	<b>Event Date / Time:</b> 12/20/2011 (CST)
	<b>Last Modification:</b> 01/09/2012
<b>Region:</b> 4	<b>Docket #:</b>
<b>City:</b> ALEXANDRIA	<b>Agreement State:</b> Yes
<b>County:</b>	<b>License #:</b>
<b>State:</b> LA	
<b>NRC Notified by:</b> BILL ALEXANDER	<b>Notifications:</b> BOB HAGAR R4DO
<b>HQ Ops Officer:</b> JOHN KNOKE	PART21 GROUP
<b>Emergency Class:</b> NON EMERGENCY	
<b>10 CFR Section:</b>	
21.21	UNSPECIFIED PARAGRAPH

## PART 21 - CAPACITY FAILURE OF PRESSURE RELIEF VALVE

The following information was received via facsimile:

"A potential issue exists involving Dresser's pressure relief device model 1982. The Part 21 investigation was initiated because of a nameplate capacity failure during National Board certification testing. The Dresser model 1982 pressure relief device is used for system overpressure protection. Dresser's engineering and quality assurance departments are currently working to identify the root cause of this capacity failure and to determine if the equipment is being used in safety related applications subject to 10 CFR Part 21. Should it be determined that the equipment at issue is being used in safety related applications, a notification will be provided in accordance with the requirements of 10 CFR Part 21."

\*\*\* UPDATE AT 1431 EST ON 1/9/12 FROM PHILIP WALTZ TO HUFFMAN VIA FACSIMILE \*\*\*

The following is a summary of an interim report on this issue:

"During the investigation process of 10 CFR Part 21, File No. 2011-02, in accordance with 10 CFR Part 21, GE Dresser has not been able to obtain the required flow capacity and does not have the required information regarding the system to determine the required flow capacity of the valve in question.

"We have completed a Transfer of Information in accordance with 10 CFR Part 21.21 (b) to EnerTech and Exelon to assist in the determination of Part 21 reportability.

"The . . . Transfer of Information letter [below] has been sent to EnerTech and Exelon.

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Part 21 (PAR)

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"GE Dresser supplied a pressure relief valve dedicated as ASME Section VIII Safety Related to Enertech, which was then sold to Exelon and installed at the Dresden Nuclear Power Station, Unit 2. As a result of an investigation of the effect of outlet piping on the flow capacity of similar pressure relief valves it was noted that the pressure relief valve installed at Dresden, Unit 2 may not relieve its ASME certified flow capacity when installed with outlet piping. In order to determine if a reportable condition exists, the flow capacity provided by a pressure relief valve to prevent the protected system from exceeding a pressure 10% greater than systems design pressure is required. GE Dresser has not been able to obtain the required flow capacity and does not have the required information regarding the system to determine the required flow capacity. As such GE Dresser cannot determine if the identified deviation from technical requirements would create a reportable condition within the requirements of 10CFR Part 21. GE Dresser provides this Transfer of Information, in accordance with 10 CFR Part 21.21(b) to Enertech and Exelon to assist in the determination of Part 21 reportability."

NRC R3DO (Orth) and R4DO (Lantz) have been notified. The NRC Part 21 Group has been sent a copy of this interim report.

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January 9, 2012

Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Subject: Dresser, Pressure Relief Operation  
10 CFR Part 21, Dresser Investigation File No. 2011-02  
Transfer of Information reporting of a potential issue involving a pressure relief  
device type 1982 valve.

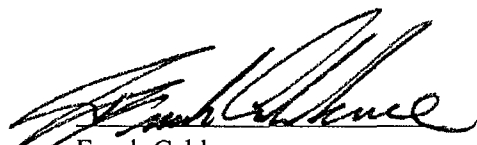
To whom it may concern,

During the investigation process of 10 CFR Part 21 File No. 2011-02, in accordance with 10CFR Part 21, GE Dresser has not been able to obtain the required flow capacity and does not have the required information regarding the system to determine the required flow capacity of the valve in question.

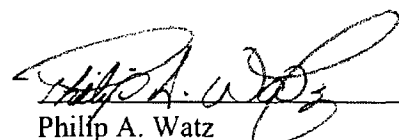
We have completed a Transfer of Information in accordance with 10CFR Part 21.21(b) to Entertech and Exelon to assist in the determination of Part 21 reportability.

The attached 10 CFR Part 21, Transfer of Information letter has been sent to Entertech and Exelon.

Sincerely,



Frank Calderone  
Manager, Quality



Philip A. Watz  
Quality Engineer



# Consolidated

# 10 CFR Part 21 Communication

10CFR21 File No. 2011-02

January 9, 2012

To: Dresden Nuclear Power Station, Unit 2

Subject: Pressure Relief Valve, Model 1982

 Reportable Condition [21.21(d)]

 60 Day Interim Report [21.21(a)(2)]

 Transfer of Information [21.21(b)]

### Summary:

GE Dresser supplied a pressure relief valve dedicated as ASME Section VIII Safety Related to Enertech, which was then sold to Exelon and installed at the Dresden Nuclear Power Station, Unit 2. As a result of an investigation of the effect of outlet piping on the flow capacity of similar pressure relief valves it was noted that the pressure relief valve installed at Dresden, Unit 2 may not relieve its ASME certified flow capacity when installed with outlet piping. In order to determine if a reportable condition exists, the flow capacity provided by a pressure relief valve to prevent the protected system from exceeding a pressure 10% greater than systems design pressure is required. GE Dresser has not been able to obtain the required flow capacity and does not have the required information regarding the system to determine the required flow capacity. As such GE Dresser cannot determine if the identified deviation from technical requirements would create a reportable condition within the requirements of 10CFR Part 21. GE Dresser provides this Transfer of Information, in accordance with 10CFR Part 21.21(b) to Enertech and Exelon to assist in the determination of Part 21 reportability.

Please contact Philip Watz (318)729-1425 if you have questions on this information.

Issued by: William Alexander 1/9/2012  
 William Alexander, Director Operations  
 Consolidated Valve Operations, GE Energy  
 8011 Shreveport Hwy, Pineville, LA 71360  
 (318)640-6474

Notice: This 10 CFR Part 21 Notification pertains only to the plants or facilities specifically indicated as affected. GE Energy has not considered or evaluated the applicability, if any, of this information to any plants or facilities other than those specifically indicated as being affected and for which GE Energy supplied the equipment or services addressed in the notification. Determination of applicability of this information to a particular plant or facility, and the decision of whether or not to take action based on the Notification, are the responsibilities of the Owner of that plant or facility.



## ***Consolidated***

## ***10 CFR Part 21 Communication***

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### **Background**

The Consolidated<sup>®</sup> Type 1982 is an ASME B&PVC, Section VIII certified threaded connection pressure relief valve (SRV) for vapor and steam service applications.

A Part 21 investigation was initiated as a result of an investigation of a capacity failure of a Type 1982 valve at the National Board test lab.

The valve failing the capacity test was returned to Dresser Inc., Alexandria, LA for further analysis. Tests were conducted in an as-received state without a nipple on the outlet port and the valve passed set point, blowdown and capacity criteria. Further tests were conducted with a nipple in place on the outlet port and the valve failed to achieve rated capacity. The valve was disassembled for inspection. All parts were found to be within specification.

A review of shipments of the Type 1982 valves indicated only one valve was sold as Section VIII (Safety Related) and was to Entertech, which was then sold to Exelon and installed at the Dresden Nuclear Power Station, Unit 2 (Serial Number TR96827). The Dresden site confirmed that the valve was installed with discharge piping. Flow testing of a Type 1982 valve of the same size and set point pressure as that supplied to the Dresden site indicated that when the valve has discharge piping connected to the valve that it may not discharge its nameplate capacity.

### **Condition of the Valve**

The valve may not flow nitrogen gas equivalent to its nameplate capacity when outlet piping is attached.

### **Root Cause of this Condition**

Original capacity certification flow testing was performed per ASME requirements which do not require piping in the outlet of a pressure relief device. With the addition of outlet piping the flow rate can be reduced to less than the nameplate capacity.

### **Corrective Actions**

The corrective actions are:

- 1) To determine the actual flow rate required to prevent the system overpressure from exceeding 1.1 times the design pressure;
- 2) Compare the required flow rate to the flow rate of the pressure relief valve with outlet piping;
- 3) If the required flow rate is less than the flow capability of the pressure relief valve no further action is required;
- 4) If the required flow rate exceeds the capability of the pressure relief valve either modify the pressure relief valve to achieve the required capacity or replace with another pressure relief valve of adequate flow capacity.



## Consolidated

## 10 CFR Part 21 Communication

### Attachment 1

- (i) Name and address of the individual or individuals informing the NRC and Dresden.

William Alexander, Director Operations  
 Consolidated Valve Operations, GE Energy  
 8011 Shreveport Hwy, Pineville, LA 71360  
 (318)640-6474

- (ii) Identification of the facility, the activity, or the basic component supplied for such facility or such activity within the United States which may fail to comply or may contain a defect.

#### *Basic Component*

<i>Site</i>	<i>MCD</i>	<i>Serial No.</i>	<i>Current Status</i>	<i>Construction Drawing</i>	<i>Year of Manufacture</i>
Dresden	NC3324	TR96827	Dresden – In use	NC3324	2009

- (iii) Identification of the firm supplying the basic component which fails to comply or contains a defect.

Consolidated Valve Operations, GE Energy

- (iv) Nature of the defect or failure to comply and the safety hazard which is created or could be created by such defect or failure to comply.

The valve does not flow air at nameplate capacity when outlet piping is attached.  
 Additional information is necessary to determine if a safety hazard exists.

- (v) The date on which the information of such defect or failure to comply was obtained.

A Potential Reportable Condition Evaluation, in accordance with 10 CFR Part 21, was initiated on October 12, 2011.

Pursuant to 10 CFR Part 21, an Interim letter to the NRC was submitted on December 19, 2011.