

THE BABCOCK & WILCOX COMPANY  
POWER GENERATION GROUP

3/9/25-01; 5/303-01; 7/...  
8/119-01; 11/132-01; 14/344-01

SITE INSTRUCTION NO. \_\_\_\_\_

To	DISTRIBUTION	DISTRIBUTION	3, 4, 5, 7, 8, 9, 11, 14
From	G. T. FAIRBURN, SERVICE MANAGER	RESPONSE REQ'D FROM	3, 4, 5, 7, 8, 9, 11, 14
Cust.	DUKE POWER COMPANY, METROPOLITAN EDISON COMPAN, FLORIDA POWER CORP., AP&L, SMUD & TECO	APPROVED	<i>G. T. Fairburn</i> XPC/1805 103.5
Subj.	OPERATING INSTRUCTIONS FOR SYMPTOMS OF A STUCK OPEN POWER OPERATED RELIEF VALVE	File No. NSS-3,4,5,7,8,9, or Ref. 11 & 14 /T3.35	Date MAY 7, 1979

This letter to cover one customer and one subject only.

- DISTRIBUTION  
CD Russell  
RC Luken  
JT Janis  
GT Fairburn

The attached information has been reviewed and approved for transmittal to your customer. Please forward this information to your customer as soon as possible.

GTF/hh  
Attachment

- cc: GJ Brazill  
JH Taylor  
CE Mahaney  
EJ Domaleski  
DC Winterich  
RL Boyer  
RE Ham  
RE Wascher  
WS Delicate  
KR Ellison  
JR Bohart  
JA Lind  
RL Pittman  
GC Schieck  
DE Lee  
Record Ctr.

*G. T. Fairburn*

REVIEWED FOR ACCURACY	
NUCLEAR SERVICE	DATE: 5/7/79

\* See previous approval.

8002100080 *p*

## 1. INTRODUCTION

Item 3 of IE Bulletin No. 79-05 requests utilities with B&W supplied NSS systems to review the actions required for coping with transients. This IE bulletin was prompted by the nuclear incident at Three Mile Island. During this incident, the power operated relief valve (PORV) on the pressurizer opened and failed to reclose. Considerable time passed before the operator determined that the PORV had failed open and took corrective action to isolate the valve. Operating and emergency procedures should be reviewed and revised as necessary to minimize the potential for a similar event. To support this effort, information relative to symptoms of a stuck open PORV is provided below for your consideration.

## 2. DESIGN FUNCTION OF THE PORV

Overpressure protection of the RCS is provided by two code safety valves on the pressurizer. The ASME code requires that these valves cannot be isolated. Prudent operation of these valves dictates minimizing the number of times the code safety valves will be opened. This is accomplished by providing a PORV with a lower opening setpoint.

## 3. SYMPTOMS OF A STUCK OPEN PORV (see note (1) below)

- A. RC pressure below the reset pressure of the PORV and decreasing (primary symptom) with
  - a. Pressurizer level increasing or indicated high (opposite trend may be possible under certain conditions).
  - b. Primary coolant temperature approaching saturation.
- B. Increase in the RC Drain tank level, pressure, and/or temperature.
- C. Sustained high (T/C) temperature downstream of the PORV.

NOTE: (1) The PORV position indicator lights do not provide direct status of the valve position. The light indicates the position of the solenoid operator on the PORV. Therefore, the indicator lights might not indicate a stuck open PORV.

FROM

GT FAIRBURN  
THREE MILE ISLAND (NSS-5)

TO

G. Y. FAIRBURN

SUBJECT

SI 5/303 REV.01

OI FOR SYMPTOMS OF A STUCK OPEN POWER  
STEADY RELIEF VALVE

DATE

MAY 7, 1979

PLEASE REPLY TO THE ATTACHED S.I.P.  
AND FORWARD RESPONSE TO NUCLEAR SERVICE  
TECHNICAL SUPPORT, NSSE  
LYNCHBURG, VA.

NOTE: SITE INSTRUCTION # 5/303 REV. 0 WAS  
NEVER SENT OUT DUE TO ERRORS IN WORDING.  
REV. 01 IS A CORRECTION OF THIS ERROR.

ORIGINATOR-DO NOT WRITE BELOW THIS LINE

REPLY TO → SIGNED

*Neil Bratright*

*BP Miller of MIT Ed was*

*sent up by letter TMI-79-60*

*dated 4/29/79.*

RESPONSE APPROVED:

*BY Fairburn 5/9/79*

ORIGINATOR DATE

DATE

*5/9/79*

SIGNED

*57 Fairburn*