

A-168

DOCKETED SHEET 1 of 10 of USNRC

REQUEST FOR ENGINEERING REVIEW

RER NO.

880707

**ORIGINAL**

'95 SEP -8 P4:04

UNIT 1

**PART 1: Problem Identification**

- (1) System No. 2403 Component No. SEE ATTACHED
- (2) Detailed Description of Problem: THERE IS NOT INSTRUMENT TOLERANCES AVAILABLE FOR ZALCON SWITCHES USED ON DIESEL GENERATORS.

(3) Proposed Solution and Justification:

- Personnel Safety  Plant Safety  Regulatory Requirement  
 ALARA\*  Other

OBTAIN NECESSARY INFORMATION FROM VENDOR TO ALLOW CALIBRATION OF ASSOCIATED INSTRUMENTS.

- (4) Requested Completion Date: ASAP Estimated Cost: \_\_\_\_\_

Point of Contact PHILIP LIEBERGER Phone: 4075 / BEEPER 260

Phillip Lieberger 10/10/88  
Initiator / Date

M. J. [Signature] 10/10/88  
Department Superintendent / Date

Engr. Supv. Assigned Garrett Target Completion Date 10/30/88

\* Copy to Manager Health Physics and Chemistry

9509120319 950825  
PDR ADOCK 05000424  
G PDR

FIGURE 1

NUCLEAR REGULATORY COMMISSION

Docket No. 50-424425-OLA-3 EXHIBIT NO. II-168

In the matter of Bo Power/Wegler

Staff  Applicant  Intervenor  Other  
 Identified  Received  Rejected Reporter WLV  
Date 8/25/95 Witness ACWinda et al

SBC II-168

REF NO 88-0707

PART 2: Engineering Support Department Review

(5) Disposition: SHEETS 5, 6, & 7 OF THIS REF PROVIDE THE REQUIRED DATA FOR THE SPECIFIED INSTRUMENTS. TEST METHOD RECOMMENDATIONS ARE ALSO PROVIDED FOR SOME INSTRUMENTS AS NOTED. SHEETS 8, 9, & 10 ARE DUPLICATES OF INFORMATION CONTAINED IN SHEETS 5, 6, & 7 AND ARE FOR RECORD PURPOSES.

Safety Related No [ ] Yes [  ]

Document Generated No [  ] Yes [ ] No. NA

Eng. Manhours Required for Review 20

Approvals:

Design Engr. NA / (if applicable) Date 1 Responsible Engr. [Signature] / Date 10/15/88

Engr. Supv. [Signature] / Date 10/15/88 Engr. Support Supt. [Signature] / Date 10/15/88

ORIGINAL

## PREFACE CONTINUATION SHEET

RER NO. 88-0707BLOCK  
NO.

## MANUFACTURER:

CALIFORNIA CONTROLS COMPANY (CALCON)

## PUBLICATION(S)

A	DRAWING 1791	K	DRAWING B4417
B	DRAWING 3281	L	DRAWING B4446
C	DRAWING 3282	M	DRAWING B4449
D	DRAWING 3283	N	DRAWING J3406
E	DRAWING 3286	O	FORM 7173
F	DRAWING 3434	P	FORM 7673
G	DRAWING 3460	Q	FORM 100-2.5A-10/79
H	DRAWING 3461	R	FORM ENG-66
I	DRAWING A3500	S	FORM E4600
J	DRAWING B4400	T	FORM T3603
		U	DATA SHEET

## PART NUMBER

## DESCRIPTION/REFERENCE

F-573-127

CHECK VALVE, MODEL 3460

F-573-133

MODEL J1791-.014, WITH 0.0145 INCH  
ORIFICE

F-573-141

ORIFICE/CHECK, PARALLEL, MODEL 3461,  
0.028 INCH ORIFICE

F-573-144

ORIFICE/CHECK, PARALLEL, MODEL 3461,  
0.006 INCH ORIFICE

(I) F-573-156

PRESSURE SENSOR, MODEL B4400, 2 WAY,  
NORMALLY OPEN, WITH MODEL 4499 BRACKET

(I) F-573-171

VIBRATION SENSOR, MODEL E4600,  
PNEUMATIC RESET TYPE

F-573-212

VALVE, 3-WAY, MODEL J1806 MK,  
DOUBLE PILOTED, MANUALLY OPERATED

F-573-217

CHECK VALVE PAC, MODEL 3283

F-573-222

ORIFICE PAC, MODEL 3281, WITH 0.028  
INCH ORIFICE

F-573-228

ORIFICE/CHECK, PARALLEL, MODEL 3282,  
WITH 0.006 INCH ORIFICE

F-573-241

ORIFICE/CHECK, SERIES, MODEL 3286,  
WITH 0.028 INCH ORIFICE  
(CONTINUED NEXT PAGE)

FIGURE 1 (CONT'D.)

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(I) F-573-271

TEMPERATURE DETECTOR, MODEL 3434.

\_\_\_\_\_

(I) F-573-330

TEMPERATURE SENSOR, MODEL A-3500-W3,  
NORMALLY CLOSED

\_\_\_\_\_

(I) F-573-359

PRESSURE SENSOR, MODEL B4417  
WITH LATCH MECHANISM, WITH  
MODEL 4499 MOUNTING BRACKET

\_\_\_\_\_

(I) F-573-421

PRESSURE SENSOR, MODEL B4446,  
50-200 PSI RANGE, NORMALLY OPEN

\_\_\_\_\_

KR-001-000

VALVE, BLOCKING, MODEL T3683, 3 INCH,  
3000 FLANGED

\_\_\_\_\_

\_\_\_\_\_

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(I) F-594-043

SPEED INDICATOR # 6476K51065

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ORIGINAL

FIGURE 1 (CONT'D.)

EE 1040

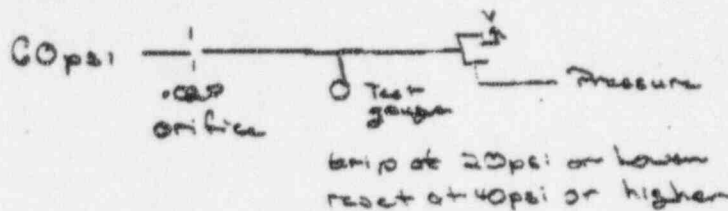
RER CONTINUATION SHEET

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BLOCK NO. \_\_\_\_\_

Imo Delaval F-573-421 Pressure Sensor  
Calcon model B444C

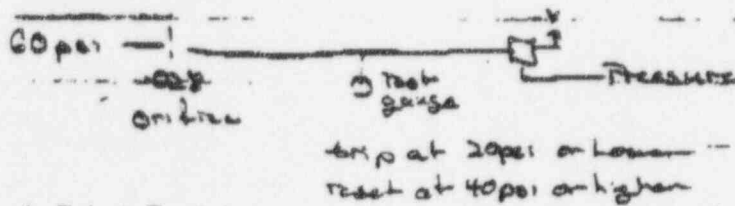
repeatable  $\pm 5$  psi of setpoint  
reset up to 40psi above setpoint.



trip 3 times and average is setpoint

Imo Delaval F-573-156 Pressure sensor  
Calcon model B4400

repeatable  $\pm 2$  psi  
reset up to 8psi from setpoint



Imo Delaval F-573-171  
Calcon model E400A

repeatable  $\pm 0.2 G$

FIGURE 1 (CONT'D.)

ORIGINAL

RER CONTINUATION SHEET


RER NO. 88-0707

BLOCK NO.

Imo Delaval part F-573-271  
Calcon 3434

Temperature  
DETECTOR


repeatable  $\pm 5\%$  of setpoint

 sensor  
metal block w/ block heater

- Heat metal block until trips
- Hold manual reset and cool block
- trip 3 times and average is setpoint

IMO Delaval part F-573-359  
Calcon 34417

repeatable  $\pm 3"$  H<sub>2</sub>O

Manual reset  
(PNEUMATIC RESET SIGNAL REQ'D) 

- Set using a water column.
- trip 3 times and average is setpoint.

ORIGINAL

FIGURE 1 (CONT'D.)



RER CONTINUATION SHEET

RER NO. 88-0707

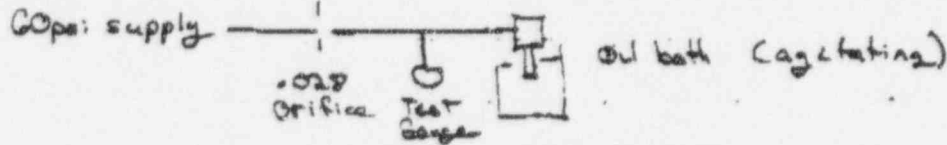
BLOCK NO.

Delaval part F-573-330 temperature sensor  
Calcon model H-3500-W3

repeatable  $\pm 2\%$  of setpoint temp.  
 requires same heat-up rate  
 • same cool-down rate  
 • same starting temperature

reset  $\approx 10\%$  below setpoint

Test



starting temperature  $\approx 20^\circ$  below

trip at 20psi or lower  
 react at 40psi or higher

Operate switch 3 time and take average of the 3 for setpoint

DELVAL PART F-594-043

GC DB43

SPEED INDICATOR  
 (TACHOMETER)

REPEATABLE  $\pm 1\%$

FIGURE 1 (CONT'D.)

ORIGINAL

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BLOCK NO. \_\_\_\_\_

OCT 13 '88 11:28 CALCON / INT-SEAL 885 650-9318

P.1



FAX NO. 805-650-9318

DATE: OCT 13, 1988

TO: VOGTE ELECTRIC GENERATING PLANT

ATTN: PHILIP REYNOLDS

FAX NO.: 404-554-7352

SUBJECT: CALCON PRODUCTS -

FROM: GARY HAZELTT

COVER AND 1 PAGES

NOTES:

*THIS FAX IS TO VERIFY INFORMATION  
GIVEN BY PHONE TO DAN HINES ON 10/12/88*

*Garry O. Hazeltt*

ORIGINAL



RER CONTINUATION SHEET

RER NO. 88-0707

BLOCK NO.

OCT 13 '88 11:29 CALCON / UNIT-SEAL 825 657-3218



P.2

PAGE I

1] CALCON BU406 PRESSURE SENSOR  
(140 F-573-421)

REPEATABLE  $\pm$  5 PSI OF SETPOINT  
RESET UP TO 40 PSI ABOVE SET POINT

2] CALCON BU402 PRESSURE SENSOR  
(140 F-573-156)

REPEATABLE  $\pm$  2 PSI  
RESET 8 PSI MAX

3] CALCON E4600A VIBRATION SENSOR  
(140 F-573-171)

REPEATABLE  $\pm$  0.2 G

4] CALCON 3434 TEMP. DETECTOR (140 F-573-271)

REPEATABLE  $\pm$  5% OF SETPOINT

5] CALCON BU417 PRESSURE SENSOR  
(140 F-573-359)

REPEATABLE  $\pm$  3" H<sub>2</sub>O  
PNEUMATIC RESET SIGNAL REQ'D

6] CALCON A3500W3 TEMP. SENSOR (140 F-573-330)

REPEATABLE  $\pm$  2% OF SETPOINT  
RESET 10°F MAX. BELOW SETPOINT

1334 Calleja Road, Ventura, California 93003 Telephone (805) 650-1597 A Tecon Company

ORIGINAL

FIGURE 1 (CONT'D.)

RER CONTINUATION SHEET

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BLOCK NO. \_\_\_\_\_



Imo Delaval Inc  
Enterprise Engine Division  
Enterprise Way and 80th A  
P. O. Box 2181  
Oakland, CA 94621-0081  
415-877-7400

IMO TELSCOPY PHONE NUMBER: (415) 577-7524  
TO VERIFY, CALL: (415) 577-7531

Date: OCTOBER 14, 1988

To: PHIL ALEXANDER, GEORGIA POWER S/N 76021

Fax No. (404) 556-7832

The published accuracy of the GE speed indicator, IMO P/W F-594-043, and of its current replacement, IMO P/W F-594-070, is  $\pm 1\%$  of Full scale.

It should be noted that this is meter accuracy, in converting the 0-1 mA input signal to a meter needle position, and does not include the accuracy of the components providing the 0-1 mA input signal.

From: LANNY MCHUGH

Number Of Pages Attached To This Cover Sheet: ZERO

FIGURE 1 (CONT'D.)

ORIGINAL