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FACIL:50-287 Oconee Nuclear Station, Unit 3, Duke Power Co. 05000287
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SUBJECT: Forwards Second 10-yr insp interval Request for Relief 92-11 from 1980 Edition of ASME Section XI,including winter 1980 addenda to allow volumetric exam & operational pressure test to be used in lieu of required hydrostatic test.

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DUKE POWER

July 14, 1992

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

Subject: Duke Power Company
Oconee Nuclear Station
Docket Nos. 50-287
Second 10-Year Inspection Interval
Request for Relief 92-11

Pursuant to 10CFR 50.55a, attached is Request for Relief from the 1980 Edition of ASME Section XI, including Winter 1980 addenda. The request is to allow a volumetric examination and an operational pressure test to be used in lieu of the hydrostatic test required after repairs or replacements by welding. This request is needed due to the inability to isolate two welds in the Emergency Feedwater System from the Steam Generators.

Please review and approve this request by August 31, 1992. On or about this date is when Unit 3 is currently scheduled to reach 200° F in the Reactor Coolant System after its next refueling outage.

Very truly yours,

J. W. Hampton
Site Vice President

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OCONEE NUCLEAR STATION

Second Ten Year Interval

Request # 92-11

1. Component for which relief is requested:

(a) Name and Number: Welds 3-03A-15-31 & -32, used to attach valve 3FDW-345 to the Emergency Feedwater header.

NOTE: The weld number is a unique number assigned to a weld. The weld number is interpreted as follows:

3	Unit number
03A	System number {Emergency Feedwater}
15	Isometric drawing number
31 & 32	individual weld numbers.

NOTE: Since weld 3-03A-15-31 falls within the boundary of Code Case N-416, this request is only for weld number 3-03A-15-32. Weld 3-03A-15-31 has been included for reference.

(b) Function: These welds attach valve 3FDW-345 to the Emergency Feedwater System

(c) ISI Class/Duke Class:

	ISI Class	Duke Class
3-03A-15-31	B(2)	F
3-03A-15-32	C(3)	F

(d) IWV-2000 Valve Category: Valve 3FDW-345 is a six inch butt weld check valve. It is classified as an active valve, IWV-2200 category C.

(e) Drawings: OFD 121D-3.1
OFD 121B-3.3
Welding Isometric 3-03A-15

2. Reference Code Requirement that has been determined to be impractical:

IWA-4400(a) "After repairs by welding on the pressure retaining boundary, a system hydrostatic test shall be performed in accordance with IWA-5000."

3. Basis for requesting relief:

Performing a hydrostatic test on the welds for this 6" butt weld check valve would require using one of the limited number of allowed hydrostatic pressure tests for the Steam Generator. Per Table 5.2.5 of Oconee's FSAR the Steam Generator is designed for 35 hydrostatic tests over the its life span.

In addition this test would require the filling of the Feedwater and Emergency Feedwater lines back into the Turbine Building, the Steam Generator, and the Main Steam line to the stop valves, this would be a distance of more than 300 feet with an average pipe size greater than 12 inches. This would generate an excessive amount of potentially contaminated water and could result in a slug of water being injected on to the turbine blades when the stop valves were open during unit restart.

4. Alternate Examination:

Weld 3-03A-15-31	will receive a 100% RT and a VT-2 inspection at normal operating pressure as allowed by ASME Code Case N-416 for full penetration welds. Code Case N-416 is acceptable since this weld, and valve 3FDW-345, can not be isolated from the Steam Generator.
Weld 3-03A-15-32	will receive a 100% RT and a VT-2 inspection at normal operating pressure.

5. Acceptability of proposed alternate testing with respect to the level of quality and safety as well as public health and safety:

The preferred method of testing, a hydrostatic test, of weld 3-03A-15-32 would require a test pressure of 1313 psi {1050 psi X 1.25, 1.25 is used since the design temperature of the system is 600 degrees F} and would provide assurance that there are no leaks at the higher than normal pressure.

Weld 3-03A-15-32 is a 6", full penetration weld. The 100% RT of this weld will ensure there are no defects or inclusions that could weaken this weld. The VT-2 at normal operating pressure will provide assurance that the weld is leak tight at normal operating pressure. The combination of a RT and a VT-2 will provide an acceptable level of assurance about the quality of the weld, and that the health and safety of the general public will not be endangered.

Since both welds are located inside the Unit 3 Reactor Building an additional level of assurance, that the health and safety of the general public is not endangered, is provided by the fact that the Reactor Building is designed to contain a leak.

6. Implementation Schedule:

The RT will be performed when the weld has been completed.

The VT-2 will be performed when the system is returned to service at the end of the outage.

Requested By: Basil W. Carney, Jr. Date: 6/18/92

Reviewed By: Ted K. Royal Date: 6/18/92

QA Reviewed: [illegible] Date: 6/18/92

Approved By: [illegible] Date: 6-18-92

5.2

FORM QR 27	REVISION 0

WELLBURG

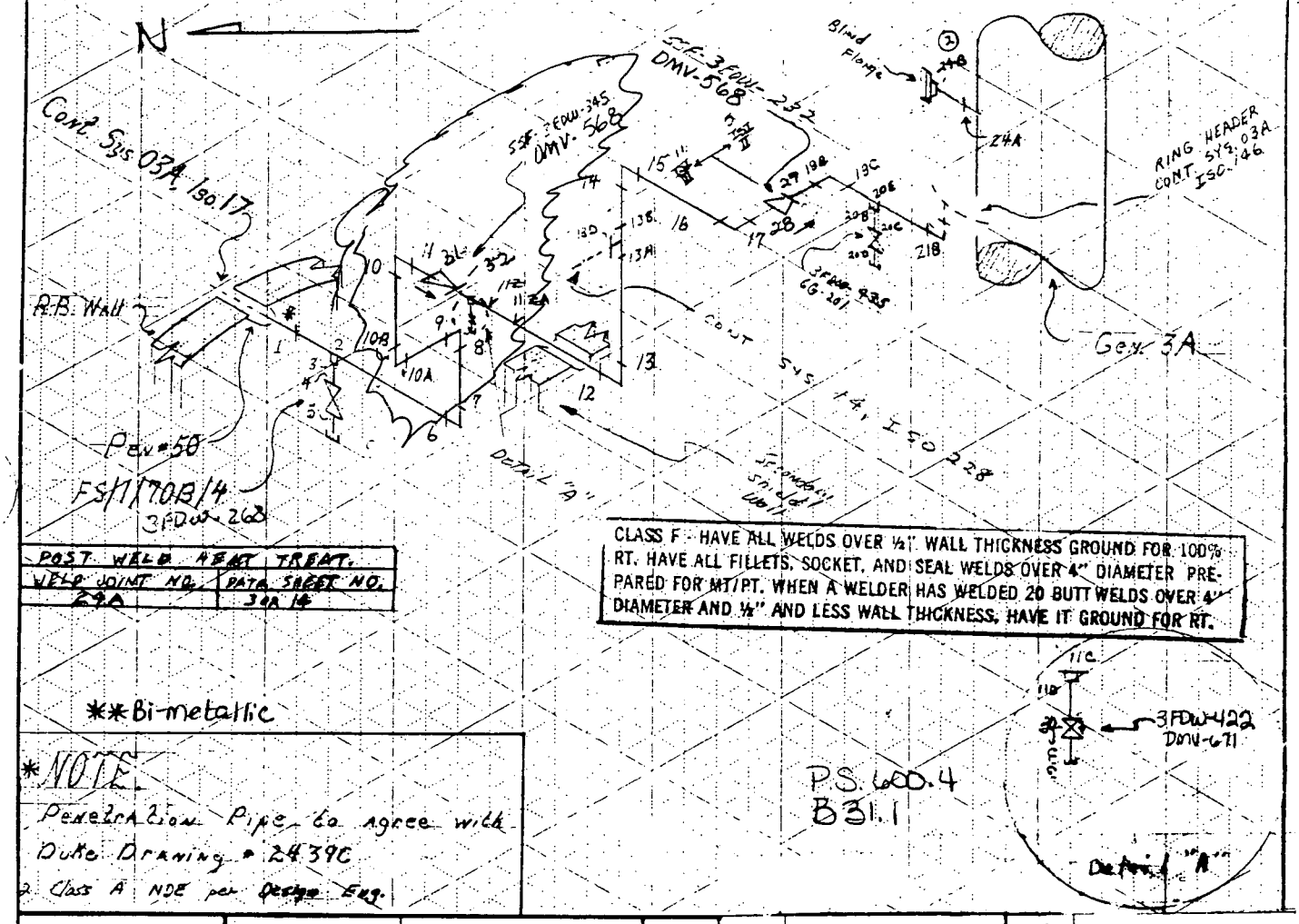
DUKE POWER COMPANY
CONSTRUCTION DEPARTMENT

ISOMETRIC SKETCH

PROJECT OCONEE SYSTEM 03A SUB SYSTEMS (1) L-250, L-350, L-264, L-202/2, L-255, L-303 UNIT 3 RB ISO. NO.* 15 REV. NO. 20
CLASS F MATERIAL CFE, CRES WELDING PROCEDURE PSA/PSB/H20 LAST WELD NO.* 32 DATE 6-5-92

Aux. Feedwater - 3A

W.P. P-3 WILL BE USED FOR JOI-VI 24A, 22A & ST. 23A



POST WELD HEAT TREAT.	
WELD JOINT NO.	DATA SHEET NO.
29A	30A 14

CLASS F - HAVE ALL WELDS OVER ½" WALL THICKNESS GROUND FOR 100% RT. HAVE ALL FILLETS, SOCKET, AND SEAL WELDS OVER 4" DIAMETER PREPARED FOR MT/PT. WHEN A WELDER HAS WELDED 20 BUTT WELDS OVER 4" DIAMETER AND ½" AND LESS WALL THICKNESS, HAVE IT GROUND FOR RT.

**Bi-metallic

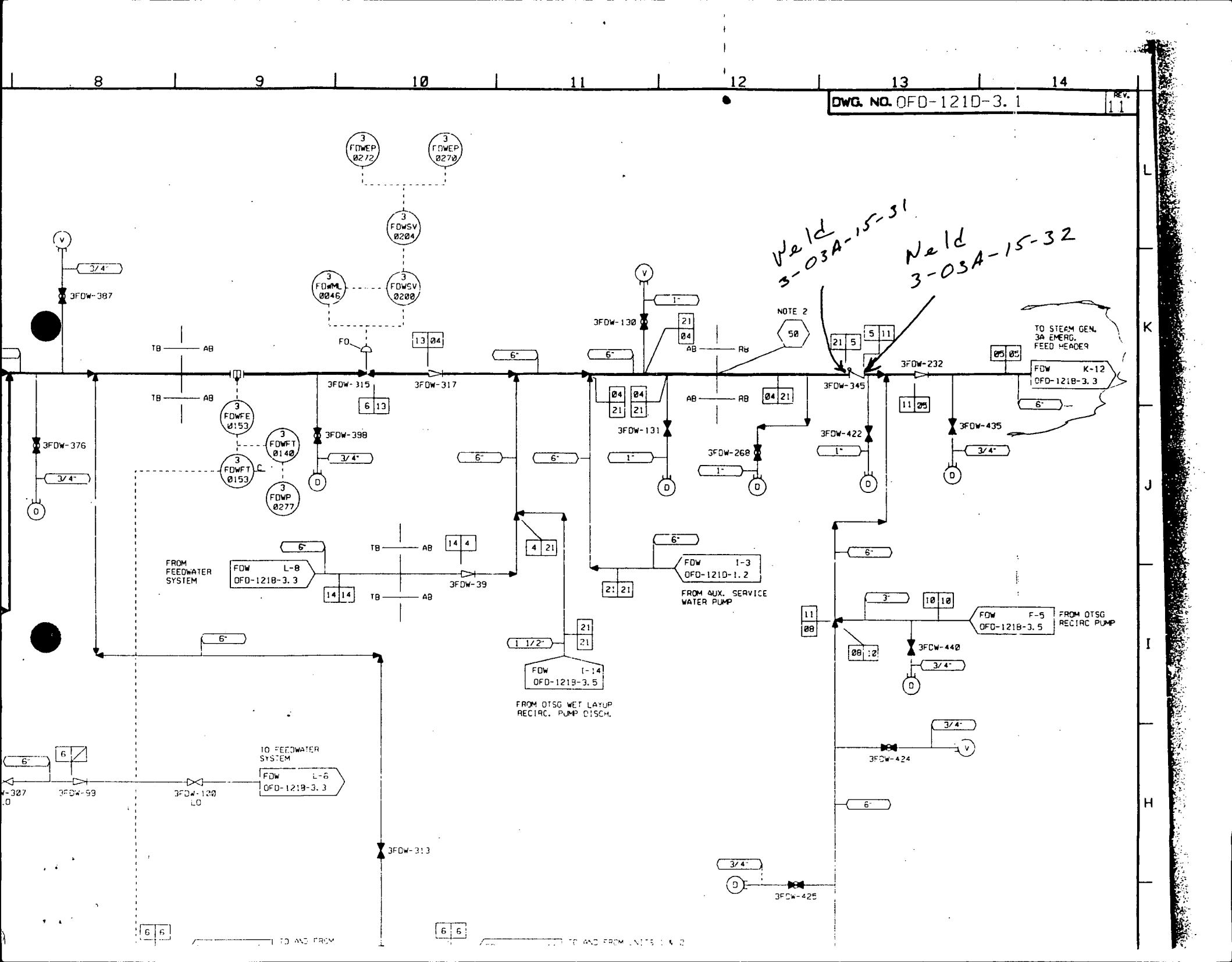
*NOTE
Penetration Pipe to agree with Duke Drawing # 2439C
2 Class A NDE per Design Eng.

REF. DWG. NOS. DWG.	REV.	SIZE x WALL THICKNESS	Sch	WELD NUMBERS	Class	Mat	NDT CODE
2480A	N/A	6"Ø x .432"	80	1, 6-9, 10A, 10B	F	CFE	9
2480B				10-17, 28, 29			9
CFD-121D-3							
050552H		6" Ø x .432"	80	13A, 13B, 13D	F	CFE	91
		6"Ø x 1.000"	?	24A	F	CFE	5
		6"Ø x .432"	80	31, 32, 19B, 19C, 21B	F	CFE	91
NSM-2027		1"Ø x .179"	80	2-5	F	CFE	0
NSM-1012		1"Ø x .179"	80	11C, 11D	F	CFE	6
SMR 0-31		ATTCH. WELD:		11E, 11EA		CFE	6
PD-121B-3		1"Ø x .179	80	30		CFE	6
		¾" Ø x .154	80	23B-20E	F	CFE	6
		6" Ø x .432"		24B		CFE	11

ISO. REV. NO.	±	CHANGES WELD NOS.	ISO. REV. NO.	±	CHANGES WELD NOS
15 RMM	-	24, 22, 23A, 22A			
	+	24B			
16 RMM	-	19, 20, 21A, 22, 22TA, 20A			
	+	19A-19C, 21B, 20E			
17/DW	+	25, 26, 27			
	-	18, 19A			
18/TSC	-	25, 26, 27			
	+	28, 29 WR# 553271			
19/DGW	+	30 WR# 539671K			
	-	11E, 11EE			
20/TSC	-	11A, 11B OE-4741			
	+	31, 32 WO-9203964			

*ALL WELD NUMBERS SHOWN ABOVE ARE PRECEDED BY THE ISO. NO.

R.L.M.
K


8
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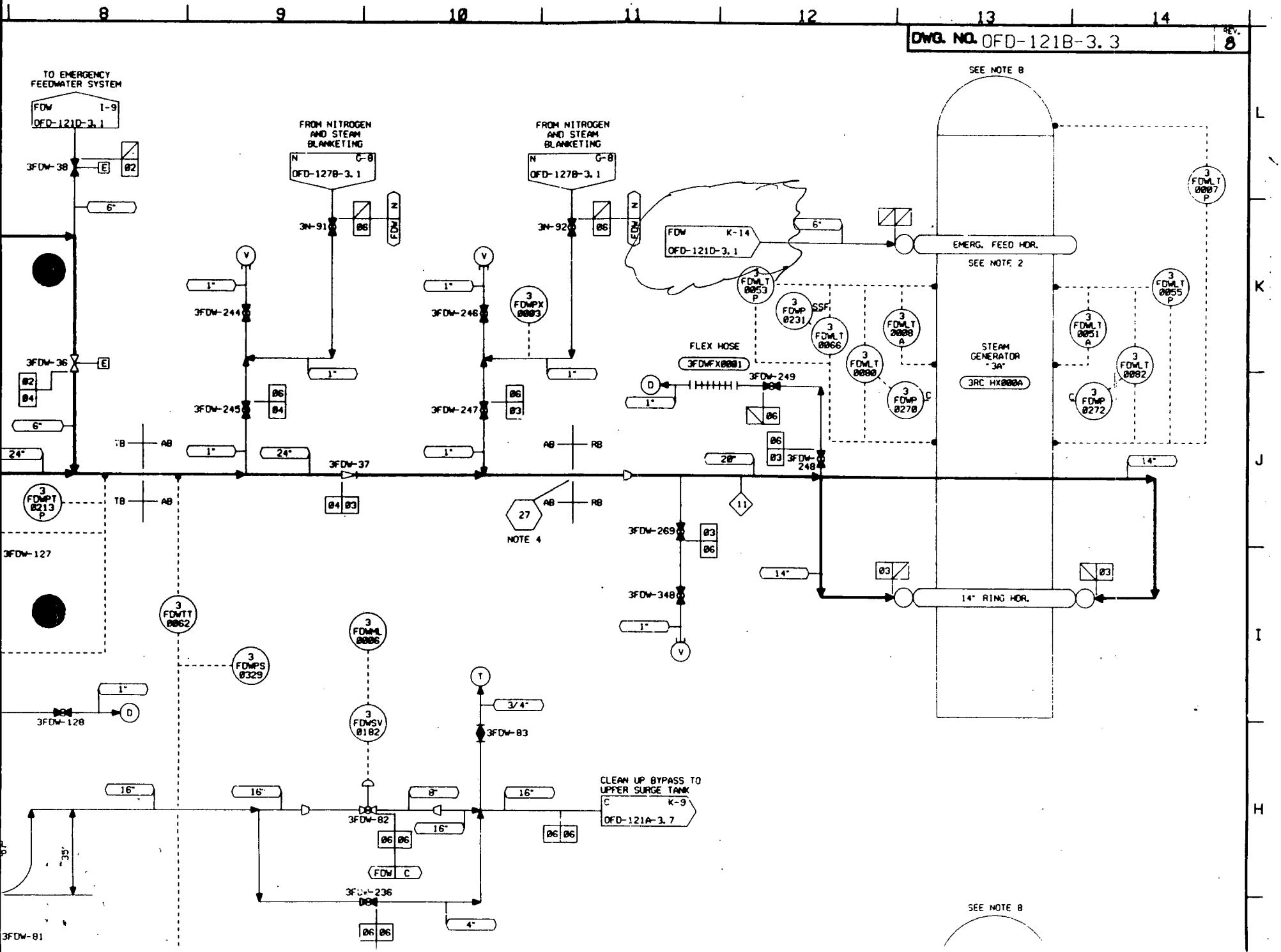
H
Weld 3-03A-15-31
Weld 3-03A-15-32
NOTE 2
50
3FDWEP 0272
3FDWEP 0270
3FDWSV 0204
3FDWML 0046
3FDWSV 0200
3FDWFE 0153
3FDWFT 0140
3FDWFT 0153
3FDWP 0277
3FDW-387
3FDW-376
3FDW-398
3FDW-315
3FDW-317
3FDW-130
3FDW-131
3FDW-268
3FDW-345
3FDW-422
3FDW-232
3FDW-435
3FDW-39
3FDW-440
3FDW-424
3FDW-425
3FDW-313
3FDW-99
3FDW-120
FO
TB AB
AB RB
TO STEAM GEN. 3A EMERG. FEED HEADER
FDW K-12 OFD-121B-3.3
FROM FEEDWATER SYSTEM
FDW L-8 OFD-121B-3.3
FDW I-3 OFD-121D-1.2
FROM AUX. SERVICE WATER PUMP
FDW I-14 OFD-121B-3.5
FROM OTSG WET LAYUP RECIRC. PUMP DISCH.
FDW F-5 OFD-121B-3.5
FROM OTSG RECIRC PUMP
TO FEEDWATER SYSTEM
FDW L-6 OFD-121B-3.3
TO AND FROM
TO AND FROM UNITS 1 & 2


DWG. NO. OFD-121B-3.3
REV. 8
8
9
10
11
12
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H
TO EMERGENCY FEEDWATER SYSTEM
FDW I-9
OFD-121D-3.1
3FDW-38
E
02
6"
FROM NITROGEN AND STEAM BLANKETING
N C-8
OFD-127B-3.1
3N-91
06
FDW N
FROM NITROGEN AND STEAM BLANKETING
N C-8
OFD-127B-3.1
3N-92
06
FDW N
SEE NOTE B
FDW K-14
OFD-121D-3.1
6"
EMERG. FEED HDR.
SEE NOTE 2
3 FDWLT 0007 P
3 FDWLT 0053 P
3 FDWP 0231
SSF
3 FDWLT 0066
3 FDWLT 0088 A
3 FDWLT 0055 P
3 FDWLT 0051 A
3 FDWLT 0082
3 FDWP 0272
3 FDWP 0270
C
STEAM GENERATOR "3A"
3RC HX000A
1"
3FDW-244
3FDW-246
3 FDWPX 0003
1"
V
3FDW-36
E
02
04
6"
3FDW-245
06
04
3FDW-247
06
03
FLEX HOSE
3FDWFX0001
D
1"
3FDW-249
06
06
03
3FDW-248
TB AB
AB RB
24"
1"
24"
3FDW-37
04 03
20"
14"
3 FDWPT 0213 P
TB AB
27
NOTE 4
AB RB
11
3FDW-269
03
06
3FDW-348
1"
V
14" RING HDR.
03
03
3FDW-127
3 FDWTT 0062
3 FDWPS 0329
3 FDWML 0006
3 FDWSV 0182
T
3/4"
3FDW-83
1"
D
3FDW-128
16"
16"
8"
16"
3FDW-82
06 06
16"
06 06
FDW C
CLEAN UP BYPASS TO UPPER SURGE TANK
C K-9
OFD-121A-3.7
3FDW-236
DW
4"
06 06
35'
3FDW-81
SEE NOTE B