LASALLE COUNTY STATION UNIT 1

STRUCTURAL BOLTING TIGHTNESS INSPECTION PROGRAM

FOR CONTAINMENT VALVES

INSPECTION RESULTS

(Inspection Performed July 1, 2, 6, & 7, 1982)

Project Construction Department

REVIEWED BY:

Site Project Superintendent

LASALLE COUNTY STATION UNIT 1 STRUCTURAL BOLTING TIGHTNESS INSPECTION RESULTS FOR CONTAINMENT VALVES

MOTOR OPERATED VALVES	NO. OF TIGHTNESS DISCREPANCIES
YOKE/BONNET BOLTING	2
OPERATOR/YOKE BOLTING	2
ESSENTIAL OPERATOR ASSEMBLY BOLTING	1

All discrepancies found (when considered on an individual basis) appear nonsignificant in respect to satisfactory operation of the valve. All problem bolted connections were at least 75% of specified torque.

At least one bolt was checked with a torque wrench on each bolted connection. If the use of hand tools was required on the other bolts, the torqued bolt was loosened with a hand wrench and then retightened to the same position to give the workman an accurate sense of the amount of force required to properly tighten the bolts with hand tools. This procedure is an improvement over the one outlined in the original inspection program.

SPECIFIC DISCREPANCIES FOUND ON MOTOR OPERATED VALVES

YOKE BONNET BOLTING:

1 of the 4 bolts was found to be marginally under the lowest allowable torque value for proper bolt preload*; 40 ft-lbs. instead of 50 ft-lbs. specified. This equals 95% of the lowest allowable torque value for the total bolted connection.

* value based on a previously determined wrench accuracy within ±5%.

1 of the 4 bolts was found to be hand tight. This equals 75% of the specified torque value for the total bolted connection.

OPERATOR/YOKE BOLTING:

1B21-F005 1 of the 4 bolts was found to be hand tight. This equals 75% of the specified torque value for the total bolted connection.

1B21-F016 1 of the 4 bolts was found to be hand tight. This equals 75% of the specified torque value for the total bolted connection.

ESSENTIAL OPERATOR ASSEMBLY BOLTING:

1 of the 4 motor mounting bolts was found to be hand tight. This equals 75% of the specified torque value for the total motor to operator bolted connection.

COUTAINMENT VALVE STRUCTURAL BOLTING TIGHTNESS INSPECTION RESULTS (Page #2)

MAIN STEAM ISOLATION VALVES

All actuator bolts were visually inspected to assure they were tight against their lockwashers. No discrepancies were found.

All tie-rod nuts were checked for proper torque. No discrepancies were found.

MAIN STEAM RELIEF VALVES

The bonnet and actuator bolt locking devices were inspected on all 18 valves. Discrepancies with locking devices were found in the following areas: (all associated bolting was found to be tightened to the proper torque value)

- 1. Air cylinder tie-rod nut tab washers were bent out of the proper position (average of 2 to 3 washers out of 8 on 12 valves).
- 2. Solenoid valve mounting bolt tab washers were positioned improperly (average of 2 to 3 washers out of 12 on 16 valves).
- 3. On 6 of the 18 valves the tamper seal cable was detached on the threaded plug that covers the relief pressure adjustment screw. The adjustment screws were inspected and found undisturbed.
- 4. On one valve 2 lockwires were found damaged on the bonnet/body bolting.

All of the above discrepancies were resolved under the direction of the Crosby Valve Company service representative.

REACTOR RECIRC FLOW CONTROL VALVES

All actuator bolt locking devices were inspected. Three pairs of actuator position indicator mounting bolts were missing lockwires on the 1B33-F060A valve. These lockwires have been replaced.

In addition to the bolt locking device inspection outlined in the original program, essential yoke to bonnet bolting and actuator rod coupling bolting were inspected to torque valves specified in the vendor instruction manual. No discrepancies were found.

July 9, 1982.

Mr. Warren Vanle:

Subject: LaSalle County Station Unit 1

Structural Bolting Tightness Inspection Results

for Containment Valves

I have reviewed the subject document which you telecopied to me on July 9, 1982. I concur with the disposition and assessment you have made in that report. This concurrence is based on the work that was done to develop the information transmitted in Sargent & Lundy's June 28, 1982 letter. Although they are clearly undesirable, none of the items identified in your transmittal if left uncorrected would have presented a safety problem.

In the case of the connection with one hand tight bolt, we believe that the required load would be carried. This statement is based on the fact that the load is carried when the bolt is in place. The torque values on the remaining bolts would maintain the proper contact on the mating surfaces.

With respect to the locking devices not being properly placed, we again believe the load would be carried since the bolts were properly torqued. The locking devices provide additional assurance that the bolted connect will not turn and then loosen.

Your corrective action to restore the bolting to our specified requirements constitutes adequate corrective action.

B.R. Shelton

B. R. Shelton 1/2

BRS/DMD/1779L

cc: B.B. Stephenson

T.E. Watts

D.C. Haan (S&L)

	MOTOR OPERATED VALVE STRUCTURAL	BOLT TIGHTNESS INSP	ECTION
VALVE NUMBER		SERIAL NUMBER	
MANUFACTURE	RANDERSON - GREE	ENWOOD/ LE	MITORQUE
YOKE/BONNET SIZE NIC	BOLTING SPEC.TORQUE N/A SN/A	(Use space below to	to diagram bolts not
WRENCH I.D.	NO. N/A		
NO. OF ROLL	TS 4 ERE IF NO PROBLEMS WERE FOUND.	(Use space below tightened to	to diagram bolts not spec.)
WRENCH I.D. OWNED BY COPERATOR A	CONAM INSP. CO. ECTÉD 2 BOLTS N		NCH
PROBLEMS F	OUND/CORRECTIVE ACTION TAKEN N	ONE	
PERFORMED	CECo. Project Const.	WITNESS Lin	ECO. Q.C. Dept.
* 1.10	EDUCTION MANIA	1. PEDY	994.7/19/82

. 001 5-00	SERIAL NUMBER	A1787
VALVE NUMBER 1821-FOO2		
MANUFACTURER ANDERSON-GREET	JW000/LIA	MITORQUE
YOKE/BONNET BOLTING SIZE N/A SPEC. TORQUE N/A NO. OF BOLTS N/A /A CHECK HERE IF NO PROBLEMS WERE FOUND. WRENCH I.D. NO. N/A OWNED BY N/A	tightened to	to diagram bolts not spec.) ONNET ARE GRAL CASTING
OPERATOR/YOKE BOLTING (5MB-000) SIZE 5/8 SPEC. TORQUE 75±10* NO. OF BOLTS 4	(Use space below tightened to	to diagram bolts not spec.)
CHECK HERE IF NO PROBLEMS WERE FOUND.		
WRENCH I.D. NO. A I - 398		
OWNED BY CONAM INSP. CO. INSPECTED 2 BOLTS W	BOX WREN	JCH
TOTAL TOTAL ACCENTIVE		
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ON SWITCH HOUSENG C	OVER- RE	PLACED
4. tall	WITNESS _	CECO. Q.C. Dept.
PERFORMED BY G. Fall CECo. Project Const.		CECo. Q.C. Dept.
# JAISTRICTEON MANIMA	NI REQ'T.	9. 2.4. 7/19/82

	1.786
VALVE MUIDEN 113	SERIAL NUMBER A 1786
MANUFACTURER ANDERSON-GREEN	WOOD/LIMITORQUE
NO. OF BOLTS NA CHECK HERE IF NO PROBLEMS WERE FOUND.	(Use space below to diagram bolts not tightened to spec.) YOKE & BONNET ARE AN INTEGRAL CASTING
OWNED BY NA OPERATOR/YOKE BOLTING (SMB-000) SIZE 5/8" SPEC. TORQUE 75±10 **	(Use space below to diagram bolts not tightened to spec.) LOOSE
OWNED BY CONAM INSP. CO.	MOTOR
INSPECTED / TLGHTENED	3 BOLTS W BOX WRENC
PROBLEMS FOUND/CORRECTIVE ACTION TAKEN ON ON SWLTCH HOUSENG CO	E BOLT MISSING VER - REPLACED
PERFORMED BY <u>E. Fall</u> CECO. Project Const. * INSTRUCTION MANUA	WITNESS <u>Dur Holland 19182</u> CECO. Q.C. Dept. L REQ4. 2.24. 1/19/82

VALVE NUMBER 1821 - F016	SERIAL NUMBER	IN-245*
MANUFACTURER ANCHOR - DARLE	NG/LLMIT	ORQUE
YOKE/BONNET BOLTING SIZE 1/2" SPEC. TORQUE 47 NO. OF BOLTS 7 CHECK HERE IF NO PROBLEMS WERE FOUND. WRENCH I.D. NO. AL - 398 OWNED BY CONAM INSP. CO.		to diagram bolts not
OPERATOR/YOKE BOLTING (SMB-000) SIZE 5/8" SPEC. TORQUE 12** NO. OF BOLTS 4 CHECK HERE IF NO PROBLEMS WERE FOUND. WRENCH I.D. NO. A1-398 OWNED BY CONAM INSP. CO.	(Use space below tightened to LOOSE MOTO	700
OPERATOR ASSEMBLY PROBLEMS FOUND/CORRECTIVE ACTION TAKEN 2 ON SWETCH HOUSENG	BOLTS LOC COVER-T	IGHTENED
PERFORMED BY	WITNESS ON	(am/) 7-682 CECO. Q.C. Dept.
** SMB-00 (5/8" & BOLT)	* FORMER	LLY VALUE

VALVE NUMBER 1833-F023 A	SERIAL NUMBER 1-205
VALVE NUMBER 113 33-10 23 1	
MANUFACTURER ATWOOD - MORREL	-L/ LLITTORQUE
SIZE 13/4" SPEC. TORQUE 1000	(Use space below to diagram bolts not tightened to spec.)
SIZE 13/4" SPEC. TORQUE 1000	MULTIPLIER I.O.
NO. OF BOLTS 4	NO. 2538 OWNED BY
CHECK HERE IF NO PROBLEMS WERE FOUND.	MORRISON CONST. CO.
WRENCH I.D. NO. A L - 398	
OWNED BY CONAM INSP. CO.	ANDROCESPARIE DUE TO
VISUAL INSP. OF I BOLT.	- INACCESSABLE DUE TO HANGER CLAMP bolts not
OPERATOR/YOKE BOLTING	(Use space below to diagram boits not tightened to spec.)
SIZE 3/41 SPEC. TORQUE 110	WPENCHNO 3082
110. 01 500.	· MULTI NO 9540
CHECK HERE IF NO PROBLEMS WERE FOUND.	bolt was verified to be
WRENCH I.D. NO. 41-361	torqued to 1000 #
OWNED BY CONAM INSP. CO.	WEYLLE 1/11/2
INSPECTED 2 BOLTS W	BOX WKENCH & Morey-17-17-8
PROBLEMS FOUND/CORRECTIVE ACTION TAKEN 2	
PROBLEMS FOUND/CORRECTIVE ACTION TAKEN	CALED
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6 1-11/	WITNESS Jand Hamplell 7-282
PERFORMED BY CECo, Project Const.	CECO. Q.C. Dept.

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VALVE NUMBER 1833 - FOZ3 B	SERIAL NUMBER 2-205
MANUFACTURER ATWOOD - MORREL	L/ LIMITORQUE
YOKE/BONNET BOLTING (7/2/82) SIZE 13/4" SPEC. TORQUE 1000 NO. OF BOLTS 4	(Use space below to diagram bolts not tightened to spec.) MULTIPLIER I.D. NO. 2538 OWNED BY
WRENCH I.D. NO. AL-398	MORRISON CONST. CO.
OWNED BY CONAM INSP. CO. VISUAL INSP. OF I BOLT - OPERATOR/YOKE BOLTING	INACCESSABLE DUE TO HANGER CLAMP (Use space below to diagram bolts not tightened to spec.)
NO. OF BOLTS 8	(o) N >
WRENCH I.D. NO. AL - 361	WRENCH NX 3082 CALIBY MULT NO 9540 Balt was yer, find to loc
OWNED BY CONAM INSP. CO. INSPECTED 2 BOLTS W/ OPERATOR ASSEMBLY	BOX WRENCH. 1000 #
PROBLEMS FOUND/CORRECTIVE ACTION TAKEN NO)NE
PERFORMED BY 4.4aW CECo. Project Const.	WITNESS <u>and Completed</u> 7-Z-82 CECO. Q.C. Dept.

WALVE NUMBER 1833 - FO67A SERIAL NUMBER 3-205 MANUFACTURER ATWOOD - MORRILL LIMITORQUE YOKE/BONNET BOLTING SIZE 13/A SPEC. TORQUE 1000 NO. OF BOLTS 4 CHECK HERE IF NO PROBLEMS WERE FOUND. WRENCH I.D. NO. AI - 398 OHNED BY CONAM INSP. CO. OWNED BY MORR. CONST. CO VISUAL INSP. OF 2 BOLTS - INACCESSABLE DUET OPERATOR/YOKE BOLTING SIZE 3/A SPEC. TORQUE 110 NO. OF BOLTS 8 CHECK HERE IF NO PROBLEMS WERE FOUND. WRENCH I.D. NO. AI - 398 OHNED BY CONAM INSP. CO. MEENCH I.D. NO. AI - 398 OHNED BY CONAM INSP. CO. MEENCH I.D. NO 9540 OPERATOR ASSEMBLY PROBLEMS FOUND/CORRECTIVE ACTION TAKEN 1 BOLT MISSING G. MANUF. TO THE CONST. CO OPERATOR ASSEMBLY PROBLEMS FOUND/CORRECTIVE ACTION TAKEN 1 BOLT MISSING G. MANUF. TO THE CONST. CO ON SWITCH HOUSENG COVER MINGS WITNESS (I LAW 7-2-82) CECO. Project Const.		
VOKE/BONNET BOLTING SIZE 13/4 SPEC. TORQUE 1000 NO. OF BOLTS 4 CHECK HERE IF NO PROBLEMS WERE FOUND. WRENCH I. D. NO. AL-398 OWNED BY CONAM INSP. CO. OWNED BY MORR. CONST. CO VESUAL INSP. OF 2 BOLTS - INACCESSA BLE DUETO OPERATOR/YOKE BOLTING SIZE 3/4 SPEC. TORQUE 110 NO. OF BOLTS 8 WCHECK HERE IF NO PROBLEMS WERE FOUND. WRENCH I. D. NO. AI - 398 OWNED BY CONAM INSP. CO. OPERATOR ASSEMBLY PROBLEMS FOUND/CORRECTIVE ACTION TAKEN 1 BOLT MISSING GIRMUT-D- ON SWLTCH HOUSING COVER HINGS WITNESS WITNESS ALL DUETO WELL DO TO THE STANDARD TO TH	VALVE NUMBER 1833 - FO67 A	SERIAL NUMBER 3-205
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WRENCH I.D. NO. AI - 398 WRENCH I.D. NO. AI - 398 OWNED BY CONAM LNSP. CO. OPERATOR ASSEMBLY PROBLEMS FOUND/CORRECTIVE ACTION TAKEN 1 BOLT MLSSING GENERALLY ON SWLTCH HOUSING COVER HINGS REPLACED DEDECORMED BY G. Jall WITNESS (D. L. Complet 1-2-82) WITNESS (D. C. Dept.	SIZE 3/4 SPEC. TORQUE 110	(Use space below to diagram boits not tightened to spec.)
OWNED BY CONAM LNSP. CO. OWNED BY CONAM LNSP. CO. OPERATOR ASSEMBLY PROBLEMS FOUND/CORRECTIVE ACTION TAKEN 1 BOLT MLSSING G. MANY 1-11- ON SWLTCH HOUSING COVER HINGE PEPLACED WITNESS Q L Quill 7-2-82 DEDECORMED BY GLOVER MINESS Q L QUILL DEPT.	CHECK HERE IF NO PROBLEMS WERE FOUND.	
PROBLEMS FOUND/CORRECTIVE ACTION TAKEN 1 BOLT MLSS ING G. MONGY-17- ON SWLTCH HOUSING COVER HINGE - REPLACED WITNESS QUILLEM 7-2-82 PERFORMED BY G. Jaw WITNESS QUILLEM 7-2-82	OWNED BY CONAM LNSP. CO.	MULT ID NO 9540
REPLACED SEPERACED WITNESS OF Lamber 7-2-82 SECONDED BY SECONDED BY	PROBLEMS FOUND/CORRECTIVE ACTION TAKEN_	1 BOLT MISSING J. Morey 7-17-
DEDECIMED BY 9-100 WITNESS CECO. O.C. Dept.	REPLACED	
	PERFORMED BY G_AUV	CFCO. O.C. Dept.

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VALVE NUMBER 1833 - F0678 SERIAL NUMBER 4-205
MANUFACTURER ATWOOD-MORRILL / LIMITORQUE
YOKE/BONNET BOLTING SIZE 13/4" SPEC. TORQUE 1000 (Use space below to diagram bolts not tightened to spec.)
NO. OF BOLTS 4 CHECK HERE IF NO PROBLEMS WERE FOUND. WERE FOUND. MULT. I.D. NO. 2538
WRENCH I.D. NO. AI - 398 MULT. I.D. NO. 1538 OWNED BY CONAM INSP. CO. OWNED BY MORR. CONST. CO OWNED BY CONAM INSP. CO. OWNED BY MORR. CONST. CO VISUAL INSP. OF 2 BOLTS - INACCESSABLE DUET OPERATOR/YOKE BOLTING (Use space below to diagram boits not tightened to spec.) AN
SIZE 3/4" SPEC. TORQUE 110
NO. OF BOLTS 8 CHECK HERE IF NO PROBLEMS WERE FOUND.
WRENCH I.D. NO. A I - 398 WRENCH NO 3082 CALIB 7/1
Both bolts were verified b
PROBLEMS FOUND/CORRECTIVE ACTION TAKEN NONE
1 116
PERFORMED BY 2. Fall WITNESS and hample 22-82 CECo. Project Const. CECo. Q.C. Dept.

	1/0-1 11-1
VALVE NUMBER 1 1 12 - F009	SERIAL NUMBER E 5875-16-1
MANUFACTURER ANCHOR - DARL	ING / LIMITORQUE
YOKE/BONNET BOLTING SIZE 5/8" SPEC. TORQUE 94	(Use space below to diagram bolts not tightened to spec.) TOP OF VALUE
NO. OF BOLTS 4 CHECK HERE IF NO PROBLEMS WERE FOUND.	INNER - ST BOLT
WRENCH I.D. NO. A I - 361 OWNED BY CONAM INSP. CO.	LTS OK POSSIBLY DUE TO TIGHTENING UPPERBOLT
OPERATOR/YOKE BOLTING (SMB-0)	(Use space below to diagram boils not tightened to spec.)
NO. OF BOLTS SPEC. TORQUE 270	NOTE: UNIVERSAL JOEN USED @APPROX. 20° ANGLE
WRENCH I.D. NO. AL - 361 OWNED BY CONAM INSP. CO.	TO CLEAR YOKE
*STEEL OPERATOR I	ATG. FLANGE
PROBLEMS FOUND/CORRECTIVE ACTION TAKEN_ ON SWETCH HOUSEN	G COVER HENGE-
REPLACED.	
PERFORMED BY	WITNESS CECO. Q.C. Dept.

11111	SERIAL NUMBER	
MANUFACTURER ANDERSON - GREEN	WOOD / LIM	ITORQUE
YOKE/BONNET BOLTING SIZE N/A SPEC.TORQUE N/A NO. OF BOLTS N/A CHECK HERE IF NO PROBLEMS WERE FOUND. WRENCH I.D. NO. N/A OWNED BY N/A	(Use space below to stightened to s	o diagram bolts not
OPERATOR/YOKE BOLTING (SMB-000) SIZE 5/8" SPEC. TORQUE 75 ± 10 ** NO. OF BOLTS 4 CHECK HERE IF NO PROBLEMS WERE FOUND. WRENCH I.D. NO. AL 398 OWNED BY CONAM INSP. CO.	NOTE: 6" U	WRENCH USED = 181/2" TORQUE = .71 CORRECTIO
OPERATOR ASSEMBLY PROBLEMS FOUND/CORRECTIVE ACTION TAKEN NO	NE	
PERFORMED BY GECO. Project Const.		A Lompbell 7.2-82 ECO. Q.C. Dept.
**INSTRUCTION MANUAL REQ'T. ELT. 7/19/825.	*SHOULD IS CORRECT	16.76 10N FACTOR

	SERIAL NUMBER	11826
VALVE NUMBER 1E12-F099B		
MANUFACTURER ANDERSON-GREE	ENWOOD/LI	MITORQUE
YOKE/BONNET BOLTING SIZE N/A SPEC.TORQUE N/A NO. OF BOLTS N/A CHECK HERE IF NO PROBLEMS WERE FOUND. WRENCH I.D. NO. N/A OWNED BY N/A	(Use space below to tightened to s	o diagram bolts not
OPERATOR/YOKE BOLTING (5MB-000) SIZE 5/8 11 SPEC.TORQUE 15±10** NO. OF BOLTS 4 CHECK HERE IF NO PROBLEMS WERE FOUND. WRENCH I.D. NO. AL-398 OWNED BY CONAM LNSP. CO. INSPECTED 1 BOLT WI OPERATOR ASSEMBLY PROBLEMS FOUND/CORRECTIVE ACTION TAKEN N	NOTE: 6" WE ON END OF WRENCH =: FACTOR* BOX WRENC	RENCH USED 181/2" TORQUE 71 CORRECTION
PERFORMED BY 2. Falls CECo. Project Const.	WITNESS Law	ECo. Q.C. Dept.
** INSTRUCTION MANUA REQT. 6.4.7.7/19/82 -5-	CORRECT CORRECT	OBE. 76. TION FACTOR

VALVE NUMBER 1851-F063	SERIAL NUMBER E 5875-7-1
MANUFACTURER ANCHOR - DARLE	NG / LIMITORQUE
YOKE/BONNET BOLTING SIZE 1/2" SPEC.TORQUE 47 NO. OF BOLTS 4 CHECK HERE IF NO PROBLEMS WERE FOUND. WRENCH I.D. NO. AI-398 OWNED BY CONAM ENSP. CO. OPERATOR/YOKE BOLTING (SMB-1) SIZE 5/8" SPEC.TORQUE 72	(Use space below to diagram bolts not tightened to spec.) TOP OF VALVE INNER BOLT LOOSE (Use space below to diagram bolts not tightened to spec.)
NO. OF BOLTS 8 CHECK HERE IF NO PROBLEMS WERE FOUND. WRENCH I.D. NO. AI - 398 OWNED BY CONAM LNSP. CO.	
OPERATOR ASSEMBLY PROBLEMS FOUND/CORRECTIVE ACTION TAKEN_/ ON SWITCH HOUSING REPLACED	BOLT MISSENG COVER HINGE -
PERFORMED BY S. Fall CECo. Project Const.	WITNESS Que Landel 7-1-82 CECo. Q.C. Dept.

VALVE NUMBER 1851 - F076	SERIAL NUMBER_	A1760
MANUFACTURER ANDERSON - GR	EENWOOD	LIMITORQUE
YOKE/BONNET BOLTING SIZE NA SPEC.TORQUE NA NO. OF BOLTS NA CHECK HERE IF NO PROBLEMS WERE FOUND. WRENCH I.D. NO. NA OWNED BY NA	tightened to s	co diagram bolts not spec.) ONNET ARE BRAL CASTIN
OPERATOR/YOKE BOLTING SIZE 1/41 SPEC. TORQUE 150± 10 (1) NO. OF BOLTS 4 CHECK HERE IF NO PROBLEMS WERE FOUND. WRENCH I.D. NO. MFH-004 OWNED BY MORRISON CONST. INSPECTED 3 BOLTS OPERATOR ASSEMBLY PROBLEMS FOUND/CORRECTIVE ACTION TAKEN A	CO. BOX WRE	
PERFORMED BY GECO. Project Const. * INSTRUCTION MANUA	WITNESS SUL REQ'T. 2	CECO. Q.C. Dept. 41.7/19/82

MOTOR OPERATED THE TE	
	11001 6-1
VALVE NUMBER 1433 - FOO!	SERIAL NUMBER E 5875 - 5-1
VALVE NUMBER / G J J	" L. MIKORDINE
MANUFACTURER ANCHOR-DARLE	NO/LIMITORO
LMIIOLVC1 OKEN-T-	bolte not
YOKE/BONNET BOLTING	(Use space below to diagram bolts not tightened to spec.) ROLT OK
SIZE 3/4" SPEC. TORQUE 167	tightened to spec.) BOLT OK POSSIBLY
	TO DUE TO
NO. OF BOLTS 2	TIGHTENIN
CHECK HERE IF NO PROBLEMS WERE FOUND.	OTHER
WRENCH I.D. NO. AL - 398	NORT BOLT
OWNED BY CONAM ENSP. CO.	100 F.T. LBS.
	100 P.T Wood.
OPERATOR/YOKE BOLTING(5MB-000)	(Use space below to diagram bolts not tightened to spec.)
SIZE 5/8" SPEC. TORQUE 72 *	
NO. OF BOLTS 4	
NO. OF BULIS WE RECOLUENS WERE FOUND.	
CHECK HERE IF NO PROBLEMS WERE FOUND.	
WRENCH I.D. NO. A 1 - 398	
OWNED BY CONAM INSP. CO.	
OPERATOR ASSEMBLY	NONE
PROBLEMS FOUND/CORRECTIVE ACTION TAKEN_	VOIVE
	WITNESS Sind Lamolal 7-2-82 CECO. Q.C. Dept.
4. fall	WITNESS Sund Tample 7-2-3C
PERFORMED BYCECO. Project Const	OF A MTG HOLES USED
*5MB-00 5/8" \$ TAPI	DED MTG. HOLES USED
	-5- 6.4.1.19/82

ALVE NUMBER 1633-F100	SERIAL NUMBER E 5875-76-1
ANUFACTURER ANCHOR-DARL	
STOTACTOREN	
IZE 5/8 A SPEC. TORQUE 94	(Use space below to diagram bolts not tightened to spec.)
O. OF BOLTS 2	
CHECK HERE IF NO PROBLEMS WERE FOUND.	
RENCH I.D. NO. A1 - 398	
WNED BY CONAM INSP. CO.	
SIZE 5/8" SPEC. TORQUE 72 *	(Use space below to diagram bolts not tightened to spec.)
CHECK HERE IF NO PROBLEMS WERE FOUND.	
RENCH I.D. NO. A 1 - 398	
OWNED BY CONAM INSP. CO.	
OWNED BY CONALL INST.	
PERATOR ASSEMBLY	
PROBLEMS FOUND/CORRECTIVE ACTION TAKEN N	ONE
5 1all	WITNESS Suid and 7682
PERFORMED BY CECo. Project Const.	CECo. Q.C. Dept.
*5MB-00 (5/8" & BOLT) 1	MTG. FLANGE USED.
	644.7/19/81

VALVE NUMBER 1633-F101	SERIAL NUMBER E 5875-76-3
MANUFACTURER ANCHOR-DARLEN	
YOKE/BONNET BOLTING SIZE 1/24 SPEC. TORQUE 47	(Use space below to diagram bolts not tightened to spec.)
NO. OF BOLTS 2 CHECK HERE IF NO PROBLEMS WERE FOUND. WRENCH I.D. NO. AI - 398 OWNED BY CONAM INSP. CO. OPERATOR/YOKE BOLTING (SMB-000) SIZE 5/8" SPEC. TORQUE 72* NO. OF BOLTS 4 CHECK HERE IF NO PROBLEMS WERE FOUND. WRENCH I.D. NO. AI - 398	(Use space below to diagram bolts not tightened to spec.)
OWNED BY CONAM INSP. CO. OFERATOR ASSEMBLY PROBLEMS FOUND/CORRECTIVE ACTION TAKEN 2 BOLTS MISSING - RE	GEARBOX COVER EPLACED
PERFORMED BY E FAUL CECO. Project Const. *SMB-00 (5/8" & BOLT) /	MITNESS <u>Sand L Complete</u> 7.2.82 CECO. Q.C. Dept. MTG. FLANGE USED 2.4.4. 7/19/82

INSPECTION	DATE	71	12	82	
THOLECTION	DA1-				

	DOMB - 29
VALVE NUMBER 1633-F102	SERIAL NUMBER PSMB-29
MANUFACTURER ROCKWELL / LI	MITORQUE
YOKE/BONNET BOLTING SIZE 5/8" SPEC. TORQUE 94	(Use space below to diagram bolts not tightened to spec.)
NO. OF BOLTS	
CHECK HERE IF NO PROBLEMS WERE FOUND.	
WRENCH I.D. NO. A 1 - 398	
OWNED BY CONAM ENSP. CO.	
OPERATOR/YOKE BOLTING (SMB-000) SIZE 5/8" SPEC. TORQUE 72*	(Use space below to diagram bolts not tightened to spec.)
NO. OF BOLTS 8	
CHECK HERE IF NO PROBLEMS WERE FOUND.	
WRENCH I.D. NO. A 1-398	
OWNED BY CONAM INSP. CO.	
OPERATOR ASSEMBLY	EAVE AS IS
PROBLEMS FOUND/CORRECTIVE ACTION TAKEN	EAVE AS IS
HINGES MISSING - L	LAVE N.
PERFORMED BY & fall ceco. Project Const.	WITNESS Sand Complete 7-2-82 CECO. Q.C. Dept.
*SMB-00 5/8" \$ MTG. 3	STUDS USED.
" J MD - 00 - 10 1 1	5- 9.27.7/19/82

VALVE NUMBER 1633 - F106	SERIAL NUMBER E5875-76-5
MANUFACTURER ANCHOR-DARCE	-NG/LIMITORQUE
YOKE/BONNET BOLTING SIZE 5/8" SPEC. TORQUE 94 NO. OF BOLTS 4	(Use space below to diagram bolts not tightened to spec.)
CHECK HERE IF NO PROBLEMS WERE FOUND.	
OWNED BY CONAM TWSP Co.	
OPERATOR/YOKE BOLTING (SMB-000) SIZE 5/8" SPEC. TORQUE 72*	(Use space below to diagram bolts not tightened to spec.)
NO. OF BOLTS 4 CHECK HERE IF NO PROBLEMS WERE FOUND.	
WRENCH I.D. NO. AT 36/	
OWNED BY CENAM Insp Co. Inspected 3 with Box We OPERATOR ASSEMBLY	ench
PROBLEMS FOUND/CORRECTIVE ACTION TAKEN /	yone
4 Jaw	WITNESS au d'llun les 7182
PERFORMED BY CECo. Project Const.	
*3MB-00 (5/8" \$ BOLT)	MTG. FLANGE USED:

ALVE NUMBER IVPII3A	SERIAL NUMBER	262136
ALVE HOLDEN		
VANUFACTURER FISHER CONTRO	LS / LLITE	1 Oregue
SIZE NA SPEC. TORQUE NA	(Use space below tightened to	to diagram bolts not
NO. OF BOLTS 4	SECURE	
CHECK HERE IF NO PROBLEMS WERE FOUND. WRENCH I.D. NO	(Use space below tightened to FACTORY SECURE	to diagram bolts not spec.) LOCKWIRES
PROBLEMS FOUND/CORRECTIVE ACTION TAKEN N	ONE	
PROBLETS TOOMS		
		<u> </u>
	*	
PERFORMED BY CECO. Project Const.	WITNESS (A)	1/1/am/64 77-82 CECO. Q.C. Dept.

VALVE NUMBER 1 V.P 1 1 3 B	SERIAL NUMBER 262137
MANUFACTURER FISHER CONTR	COLS/LIMETORQUE
YOKE/BONNET BOLTING	(Use space below to diagram bolts not tightened to spec.)
NO. OF BOLTS 4 CHECK HERE IF NO PROBLEMS WERE FOUND. WRENCH I.D. NO. N/A	FACTORY LOCKWIRE SECURE
OPERATOR / OKE BOLTING SIZE NA SPEC. TORQUE NA NO. OF BOLTS 4 CHECK HERE IF NO PROBLEMS WERE FOUND.	(Use space below to diagram bolts not tightened to spec.) FACTORY LOCKWIRE SECURE
OWNED BY OPERATOR ASSEMBLY PROBLEMS FOUND/CORRECTIVE ACTION TAKEN A	IONE
PERFORMED BY G. Fall	WITNESS Qued Campbel 7.6-82

VALVE NUMBER IVP114A	SERIAL NUMBER 262138
MANUFACTURER FLSHER CONTR	OLS/LIMITORQUE
YOKE/BONNET BOLTING SIZE N/A SPEC. TORQUE N/A NO. OF BOLTS 4 CHECK HERE IF NO PROBLEMS WERE FOUND.	(Use space below to diagram boits not tightened to spec.) FACTORY LOCKWIRES 3ECURE
OWNED BY NA OWNED BY NA OPERATOR/YOKE BOLTING SIZE NA SPEC.TORQUE NA NO. OF BOLTS 4 CHECK HERE IF NO PROBLEMS WERE FOUND. WRENCH I.D. NO. NA OWNED BY NA	(Use space below to diagram bolts not tightened to spec.) FACTORY LOCKWINES SECURE
OPERATOR ASSEMBLY PROBLEMS FOUND/CORRECTIVE ACTION TAKEN_ N	ONE
PERFORMED BY & . LaW CECo. Project Const.	WITNESS Som Manda 72-87 CECO. Q.C. Bept.

INSPECTION	DATE	7.1	21	82	
THOPECITON	5711.		-		

VALVE NUMBER 1 VP 1 14 B	SERIAL NUMBER	262139
MANUFACTURER FISHER CONTRO		
MANUFACTURER FISHER CONTICO		
YOKE/BONNET BOLTING	(Use space below to tightened to spe	(C.)
SIZE N/A SPEC. TORQUE N/A NO. OF BOLTS 4	FACTORY L SECURE	ockwires
WRENCH I.D. NO. NIA		
OWNED BY NA OPERATOR/YOKE BOLTING	(Use space below to tightened to sp	ec.)
SIZE N/A SPEC. TORQUE N/A	FACTORY SECURE	LOCKWIRES
WRENCH I.D. NO. NO.		
OWNED BYNA		
OFERATOR ASSEMBLY	IONE	
PROBLEMS FOUND/CORRECTIVE ACTION TAKEN		
6 1 11/c	WITNESS Day	dl ampell 7-282
PERFORMED BY CECo. Project Const.	CE	Co. Q.C. Dept.

VALVE NUMBER 1WR179	SERIAL NUMBER E 5875-84-2
MANUFACTURER ANCHOR - DARLI	ING / LIMITORQUE
YOKE/BONNET BOLTING SIZE 5/8" SPEC. TORQUE 94 NO. OF BOLTS 4 CHECK HERE IF NO PROBLEMS WERE FOUND. WRENCH I.D. NO. A L - 398 OWNED BY CONAM INSP. CO.	(Use space below to diagram bolts not tightened to spec.) NOTE: 6" WRENCH USED ON END OF 181/2" TORQUE WRENCH = .71 CORRECTED FACTOR*
OPERATOR/YOKE BOLTING (SMB-000) SIZE 5/8" SPEC. TORQUE 72 XXX NO. OF BOLTS 4 CHECK HERE IF NO PROBLEMS WERE FOUND. WRENCH I.D. NO. A £ -398 OWNED BY CONAM LNSP. CO. OPERATOR ASSEMBLY PROBLEMS FOUND/CORRECTIVE ACTION TAKEN A	(Use space below to diagram bolts not tightened to spec.) NOTE: 6" WRENCH USER ON END OF 181/2" TORQUE WRENCH = .71 CORRECTION FACTOR*
PERFORMED BY S. Fall CECO. Froject Const. ** SMB-00 (5/8" & BOLT) MTG. FLANGE USED -5	WITNESS Pand Lamptell 7-2.82 CECO. Q.C. Dept. *SHOULD BE.76 CORRECTION FACTOR 16 1 7/19/81-

INSPECTION	DATE: 7	111	82	

HOTOR OF CIONAL	
VALVE NUMBER 1 WR 180	SERIAL NUMBER E 5875-84-4
MANUFACTURER ANCHOR-DARLI	NG/LIMITORQUE
YOKE/BONNET BOLTING	(Use space below to diagram bolts not tightened to spec.)
NO. OF BOLTS 4	NOTE: 61/2" WRENCH USED ON END OF 181/2" TORQUE
WRENCH I.D. NO. A I - 398	WRENCH = .74 CORRECTION
OWNED BY CONAM INSP. CO. INSPECTED 3 BOLTS, W	11 BOX WRENCH
OPERATOR/YOKE BOLTING (SMB-000) SIZE 5/8" SPEC. TORQUE 72**	tightened to spec.)
NO. OF BOLTS 4	NOTE: 6" WRENCH USED ON END OF 181/2" TORQUE
WRENCH I.D. NO. AL - 398	WRENCH = . 71 CORRECTION
(1 1 0 M (1 (5) (0)	- MACCESSABLE DUET
The second of th	2" & CONDUIT MOTOR MOUNTING BOLT
LOOSE-TIGHTENED	
	2
PERFORMED BY <u>CECo. Project Const.</u>	CECO. Q.C. Dept.
*** en a no 15/04 & BOLT)	*SHOULD BE. 76. CORRECTIONS FACTOR 24.4.7/19/82
MTG. FLANGE USED -5	24.4.7/19/82

FORM # MSIV

INSPECTION DATE 7-7-82

MAIN STEAM ISOLATION VALVE ACTUATOR BOLT LOCKING HARDWARE AND HYDRAULIC CYLINDER TIE ROD TIGHTNESS INSPECTION

LVE NUMBER 18	21-F022 A	SERIAL NUME	ER	KA-9.	
ANUFACTURER	Rockwell Manufacturi	ng Company			
UPPLIER	General Electric Com	npany			
Total Control of the	DER TIE ROD BOLTING		(Use diagram	below to iden tightened to	tify spec.)
	O ft-1bs. NO. OF BOLT	s <u>4</u>	,	TOP OF VALVE	
,	cross corner			() () () () () () () () () ()	
	F NO PROBLEMS WERE FOUN			*	
RENCH I.D. NO.	M 5090 Cali Dat	e 4-82		→ ⊕	
WNED BY	Ceco			3 9	
ROBLEMS FOUND	/CORRECTIVE ACTION TAKE and reference. Identif	N: (If bolt y missing or	tightening is defective bol	required, lis	t tord
value used	CORRECTIVE ACTION TAKE and reference. Identif	s tone	Bolta a	and for	lware.)
applie	CORRECTIVE ACTION TAKE and reference. Identif	5 ToN	Bolto d	fecto,	for
applie	CORRECTIVE ACTION TAKE and reference. Identif	5 ToN	Bolta a	fecto,	fore
applie	CORRECTIVE ACTION TAKE and reference. Identify the second of the second	5 ToN	Bolto dical Co	fecto,	for
value used applied no side applied	CORRECTIVE ACTION TAKE and reference. Identify 340 FT/LA venent ho sods. hute	s tone	Bolts a	fecto,	for for
applie	CORRECTIVE ACTION TAKE and reference. Identify 340 FT/LA we mant ho sods. harte sound. 10 M 50 90	s ton	Bolts a	fecto,	for for

INSPECTION DATE 7-7-82

MAIN STEAM ISOLATION VALVE ACTUATOR BOLT LOCKING HARDWARE AND HYDRAULIC CYLINDER TIE ROD TIGHTNESS INSPECTION

LVE NUMBER_13	SZF FO22 B SERIAL N	NUMBER KA-5
ANUFACTURER	Rockwell Manufacturing Company	,
JPPLIER	General Electric Company	
	DER TIE ROD BOLTING	(Use diagram below to identify bolts not tightened to spec.)
	O ft-1bs. NO. OF BOLTS 4	TOP OF VALVE .
	F NO PROBLEMS WERE FOUND.	. D
	M 5090 cgli. Date 4-82	
WNED BY		- 9 9
CTUATOR ASSEM	BLY	
value used	and reference. Identify missing	It tightening is required, list torq or defective bolt locking hardware.)
applied	340 FT/LBS TEM	to physical dife
found	on tie rods.	mits physical
found Site	- Canana Domin	al.
actuata	- assembly botting	wer found acceptable
	OWNED BY	EECO MM DEDI
WRENCH I.D. N		
PERFORMED BY	CECo. Project Cogst.	WITNESS LA Lable 7-7-8:

MAIN STEAM ISOLATION VALVE ACTUATOR BOLT LOCKING HARDWARE AND HYDRAULIC CYLINDER TIE ROD TIGHTNESS INSPECTION

VALVE NUMBER 18	21-F022 SERIAL NU	MBER_ KA-64
MANUFACTURER	Rockwell Manufacturing Company	
SUPPLIER	General Electric Company	
	DER TIE ROD BOLTING O ft-1bs. NO. OF BOLTS 4	(Use diagram below to identify bolts not tightened to spec.)
TORQUE SEQUENCE	cross corner	TOP OF VALVE
WRENCH I.D. NO.	M 5090 col. Late 4)	/82 (+)
OWNED BY	CECO	3 4
value used	CORRECTIVE ACTION TAKEN: (If bolt and reference. Identify missing or	tightening is required, list torque defective bolt locking hardware.)
applied	ent. no physical de	feets found on
Tie Rod	a ruto physical co	idition appear
211 act	actor Colling accepte	able,
WRENCH I.D. NO	. 15090 OWNED BY	ECO MM DEPT
PERFORMED BY	Tell Redy 7-7-82 W CECo. Project Const.	TITNESS Lahla 7-7-8 2 CECO. Q.C. Dept.

MAIN STEAM ISOLATION VALVE ACTUATOR BOLT LOCKING HARDWARE AND HYDRAULIC CYLINDER TIE ROD TIGHTNESS INSPECTION

ALVE NUMBER 18.	21-F022D	SERIAL NUM	BER	2-67
ANUFACTURER	Rockwell Manufac	turing Company		
UPPLIER	General Electric	Company		
	ER TIE ROD BOLTING		(Use diagram bolts not	below to identify tightened to spec.)
	oft-1bs. No. OF E	BOLTS4		OP OF VALVE
	F NO PROBLEMS WERE	FOUND.		2
WRENCH I.D. NO.	M5090 Cali. 1	Date 4-82		e e
OWNED BY			. (3	1 4
value used a	CORRECTIVE ACTION T	icity massing	· m	required, list torque locking hardware.)
mor m	Roda Mil	no physics to physics	ried de	feets form
all act				acceptable
WRENCH I.D. NO	. M5090		ECO M	
PERFORMED BY	CECo. Project Con	7-7-82 h	TITNESS (U) CECO	Chler 1-1-82

BOLT LOCKING HARDWARE INSPECTION FOR MAIN STEAM RELIEF VALVES

BOLT LUCKING MARCHANIC
@ 3350
WINDER N (374600-0060
ALVE NUMBER 1-B21- FO 13 A SERIAL NUMBER NO
Caro Company
ANUFACTURER Crosby Valve & Gage Company
SUPPLIER General Electric Company
이 생기에 가게 되는 것이 되었다. 그 사람들이 그 사람들이 가지 않는 것이 되었다. 무슨 사람들이 없다.
PROBLEMS FOUND/CORRECTIVE ACTION TAKEN: (If bolt tightening is required, list torque lightening is required, list torque lightening is required, list torque lightening is required, list torque
1 - HEAR AND THIE CHOO!
1) Set. SCREW: look WIRE Replaced.
D Set. SCREW. Car College of the
Enepertie of lotting showned it to
Os 1. Harbor
- Ci / Li's one air Calender
(3) Tob: washers on an Glender
were acceptable.
(9 -1 111 Soloings
esposioned as required and Retarqued
to 10-ft-16x had ware was Sound
a all other had were was found
occepitable.
*· Lock. seere on position endiciotion
*· Lock. leve on posicion
suitél requies septemen!
. W. Reidy
LICK WELL
WITE PISTILIVER TORINE CHELKED 50 FT/USS Y WIRED AWAT
5092 WER OWNED BY
WRENCH I.D. NO. m 9557 WER OWNED BY
PERFORMED BY Marter Convey to. WITNESS CECO. Q.C. Dept.

BOLT LOCKING HARDWARE INSPECTION FOR MAIN STEAM RELIEF VALVES

	1-821-F0138 SERIAL NUMBER N 63790-000-0000
ALVE NUMBER	1-BZI-FOIJ B SERIAL HOLDER NO.
ANUFACTURER	Crosby Valve & Gage Company
UPPLIER	General Electric Company
ROBLEMS FOUND/	CORRECTIVE ACTION TAKEN: (If bolt tightening is required, list torque and reference. Identify missing or defective bolt locking hardware.)
act -	accepted.
~	1 - 1 1 - Were ocception
	calanda were the
as	office hand wais wai famed. acceptable.
(d) all.	other had was in
	N'II P.
we	The series of ETI.
. 11.	POSITIONER TORGUE CHECKED SOFTILE
2/1/5	K WIRED accept 7782
7 7 06	A winey . , , ,
V 1	Jane to 10 ft.165 7/14/XZ
*· ReTo	rawy WER MINOC
	0 J wat 7-11-8-
	C660 AC
	NO M 9050 OWNED BY CELO MM DEPT
WRENCH I.D.	NO. m 9052 OWNED BICE TO
	Wither Convy to WITHESS W Light Dept. 7-7-8
PERFORMED BY	Crosby Valve & Gage Company -7- WITNESS L. Jeght Depy.
	crosby valve = -7-

	7.	- 6.0	
INSPECTION DAT	TE /		

BOLT LOCKING HARDWARE INSPECTION FOR MAIN STEAM RELIEF VALVES

VE MUMBER	1-821-F0 13 C SERIAL NUMBER N 63 790-00- 00	
UFACTURER	Crosby Valve & Gage Company	
PLIER	General Electric Company	
value used a	CORRECTIVE ACTION TAKEN: (If bolt tightening is required, list and reference. Identify missing or defective bolt locking hardway	torque re.)
E RICE	mitim of tab wooling	
Do	Air culon & Soloni do une	any
	concern with inspection coso W. Reily 7/2/2	52
	Complete 7-2-72 De.	<u> </u>
* Ta	C. tome of on 7-7-82 using	
and.	1/ 1/ 200 - 00	
won	11.5 Rude	
NOTE: P	OSITIONER TORQUE CHECKED SOFT/LIS	35 Q
LOCK	WIRED accept web 7-7-82	
	qued. to 10-ft-165 wee. c-19-82.	
WRENCH I.D.	NO. NA-7-2-82 OWNED BY	
	Water Conon, Le. WITNESS When To CECO. Q.C. Dept.	1-7-1

	@ 45° SERIAL NUMBER N 63796-00-00-77
VALVE NUMBER /-	SERIAL NUMBER N 63 146 00-00
MANUFACTURER	Crosby Valve & Gage Company
SUPPLIER	General Electric Company
PROBLEMS FOUND/ value used a	CORRECTIVE ACTION TAKEN: (If bolt tightening is required, list torque nd reference. Identify missing or defective bolt locking hardware.)
	ecosio. acceptable.
= 1 70%	washer on ancylendar wa ropositioned
3) 1- Tol-	washin on - solor noid wa replaced
Secure	i other were repositioned. all
1 /time	was retrigued to 10 ft-1/2.
2 -110	ather bund wie evan found acceptable
4	to exception of . 2. orcodes of lest win
- 2011	and to Count Polting
1-2 6	Was CEGO QC
	1' - 192
Conem le	with mapelion complete 17 67/18 - V LOCK
11. FOS	SITIONER TIRGUE CHECKED SOFT/LBS & LOCK NIL NIL NIL 7-7-87
DIEED.	CICLET 7-7-87
WRENCH I.D. N	10. M 4052 WR. OWNED BY CEGO MM DEPT
	MITNESS MITNESS Metator 7-7-12. Crosby Valve & Gaget Company CECO. Q.C. VDept
PERFORMED BY_	Crosby Valve & Gage Company WITNESS MITTERS CECO. Q.C. VDept

-7-

								WAL WEE
	LACUTUR	HADDWARE	INSPECTION	FOR	MAIN	STEAM	KELIEF	VALVES
BOLI	FOCKTUR	HANDMAKE	11101 -011011					

BOL	I LUCKING HARDIANC THE COLOR
	0 295°
	1-B21-F013 E SERIAL NUMBER N63790 - 00-0074
VALVE RUPSER	
MANUFACTURER _	Crosby Valve & Gage Company
SUPPLIER	General Electric Company
DAZU GULEN	O/CORRECTIVE ACTION TAKEN: (If bolt tightening is required, list torque and reference. Identify missing or defective bolt locking hardware.)
n st	sien acceptable.
0 12	positioning of . Teb wester
3 200	ouplete o the time -
INC	on plete la calanda
1	- Air cut of solonidi.
	L / E L T - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
Comme lis	the inquestion Complete 1.2.82 - W Reidy 7/2/12
	TO TARBIE AND THE TARBUTANTE
	_ W - 7-7-X
WIRED	6. weshin istangued of ten being
To	prostroned on 7/7/82 utiliting
neg	postioned on
il	KENCH M 5092.
	W.E. Rusy 7/7/82
* . 0 +	equed & 10-f+-16 WER - 7-19-82
" Kelo	- 94- "
WRENCH I.D.	NO. 1/A - 7-2-82 OWNED BY
PERFORMED B	Y WITNESS W Letter 7-7-72, CECO. Q. Q. Dept.
	Crosby Valve & Gage Company

INSPECTION	DATE	7-1-30
11101	_	

	°
	C065°
ALVE NUMBER	1-821-F013F SERIAL NUMBER N 6379-00-0071
MANUFACTURER	Crosby Valve & Gage Company
SUPPLIER	General Electric Company
	이 가는 것이 눈이 되는 것이 되었다. 얼마나 없는 것이 없는 것이 없는 것이 없다.
PROBLEMS FOUND/	CORRECTIVE ACTION TAKEN: (If bolt tightening is required, list torque and reference. Identify missing or defective bolt locking hardware.)
	uis weie found. acceptable.
1) 5- 5-10	wis ment former.
5 Tob 6	mosti en oir cylinder wie strawlten
	and land occeptable.
-11	bueshi on egydner side of 5RU was
3 705.	wester on of
ninlac	o. Other which were encouracted
	to resulten the contra
- 7	1 cases was netorgard to 10-64.11-s
en all	1
	i Reidy
	SITIONER TORGRE CHECKED SOFTLISS & LOCKED
METE POS	SII ICNER TORING
WIRED.	7-7:82 augt
	NO. M 5092 OWNED BY CECO MM DEPT
WRENCH 1.U.	
	WITNESS W. F. Tolses 7-7-72
PERFORMED BY	Crosby Valve & Gage Company . CECE. Q.C. UDept.
	7

BOLT 2000
VALVE NUMBER 118 ZI FO13G SERIAL NUMBER N 63790-00-1010
MANUFACTURER Crosby Valve & Gage Company
MANUFACTURER Crosby Valve a dage company
SUPPLIER General Electric Company
PROBLEMS FOUND/CORRECTIVE ACTION TAKEN: (If bolt tightening is required, list torque value used and reference. Identify missing or defective bolt locking hardware.)
Ro Souled Set Scruss 0-1 Carin men showed.
uno evidente of movement.
uno evident
Tol- washing to sposition in con cal
£. Solonindo Q .t.lis Time,
6600 QC WEL 7-19-82 11 Peldy 7/2/82
- 1/ 12-2-2 maple to the
NOTE: POSITIONER TORQUE CHECKED 50 FT/LBS YLOCK
NOTE: POSITIONER TORTHE WELL
131164
Tol. WASHELS- Kopositioned and
Tol. WASHERS- Reposition 10ft -165
m 5092.
using m 5092. 1 W. Rid, 7/7/82
WRENCH I.D. NO. NA - 9-2-82 OWNED BY
PERFORMED BY 1) often Conney WITNESS 11 Lighting 7-7-82 Crosby Valve & Sage Company Crosby Valve & Sage Company

(8 3200
VALVE NUMBER 1-1321-1013 H SERIAL NUMBER N 63790-00-00-69
MANUFACTURER Crosby Valve & Gage Company
SUPPLIER General Electric Company
PROBLEMS FOUND/CORRECTIVE ACTION TAKEN: (If bolt tightening is required, list torque value used and reference, Identify missing or defective bolt locking hardware) with the containing shope, suc, sight, we will class missing. N-stamp. TAG. for N-V and Class I- N.V-Stamp. We NAVE S-N-4. N.B# and. Class I- N.V-Stamp.
2) set secon bound missing i wsperture of set corewis showed ping had mat
ben moved. resealed. Be positioning of AIR cylinder sets
(4) Prositioning of solonis tolo met
Cone at the time ceso ac w. Reidy 7/2/32
NOTE: POSITIONER TORQUE CHECKED SOFTILBS 1 LOCK
* Repositioning and retarguing ** Complete or 717/82 WLENCH
WRENCH I.D. NO. 1/A- 7-2-82 OWNED BY \$
PERFORMED BY Watter Comon, J. WITNESS W Lighter 7-7-82- Crosby Valve & Gage Company CECO. Q.C. Dept.

INSPECTION DATE 7-	1-82
--------------------	------

ALVE NUMBER	1-1321-F013- SERIAL NUMBER 0 63 790-00 - 0065
ANUFACTURER _	Crosby Valve & Gage Company
SUPPLIER	General Electric Company
PROBLEMS FOUND	O/CORRECTIVE ACTION TAKEN: (If bolt tightening is required, list torque and reference. Identify missing or defective bolt locking hardware.)
2 3-1 3	tel-washe on Air ege replaced.
S Cine	Tal- (1)63 200
3 Selm	id. Tola ok
4 511	ation had war acceptable
1	
	W. Reidy
	OSITIONER TORQUE CHECKED SOFT/LBS & LOCKED J-7-82 NEEDT
NOTE P	OSITIONER TORQUE CHECKEN SOLLING
111000	7-7-82 Neept
	NO. M 5092 OWNED BY CECO MM DEPT
WRENCH I.D.	NU. 7713070
	WITNESS W CEEO. Q.D. Dept.
PERFORMED B	Croshy Valve & Gade Company CEEO. Q.C. Dept.
	-7-

	a 70°
	1-821-F013 K SERIAL NUMBER N 63790-11-0073
LVE NUMBER	
NUFACTURER _	Crosby Valve & Gage Company
NUFACTORER _	
UPPLIER	General Electric Company
IPPLIER	
ROBLEMS FOUND	CORRECTIVE ACTION TAKEN: (If bolt tightening is required, list torque and reference. Identify missing or defective bolt locking hardware.)
	sepecis acceptable
7 5.7	cereas acceptable
5. Tak.	cipsmens were found acceptable
	The air coliner.
	washen found mis-installed on SPU
= 700	a waster for 1 + 1 + 1 to latting
501	and were reparted - and the latting
.+	- 11:-4+-11:5.
72 17	This I I is Down of accoptable
4, 00	The bond waie his found acceptable
	1
	W. Reidy
	POSITIONER TORQUE CHECKED 50 FT/LBS & LOCK
MITE!	OSITIONER TORGUE LHECKED
121FED	wich 7-7-85
1 - 1	
	NO MASSON OWNED BY CECO MM DEPT
WRENCH I.D.	NO. M-9552 OWNED BY ZEZO
	A ++
חבת בת מעבת פ	Y Water Comon WITNESS W Lethtse 7-7-7.2. Crosby Valve & Gage Company CECO. Q.C. Dept.
PERFURMED B	Crosby Valve & Gage Company

VALVE NUMBER 1821-F013L SERIAL NUMBER N63790-00-0107
MANUFACTURER Crosby Valve & Gage Company
SUPPLIER General Electric Company
PROBLEMS FOUND/CORRECTIVE ACTION TAKEN: (If bolt tightening is required, list torque value used and reference. Identify missing or defective bolt locking hardware.)
(2) tal- visolein not repositioned
at the time *
- 11 1 ludial was sound
occeptable. word 6600 90 7-14-82
1. [1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
NOTE: POSITIONER TORQUE CHECKED SOFT/185 TO LOCK
WIRED acrest 7-7-82
+ Tab . Copositioned and retargued 4
7. Tab. sepasitioned and retargued 4. 10 ft-16s. (WRENCH.M. 5092) on.
July 7 1982
W.E. Rusy
WRENCH I.D. NO. N. AVE - 7-2-FZ OWNED BY CECO
PERFORMED BY WITNESS W Tiple, 7-7-82_ Crosby Valve & Gage Company Crosby Valve & Gage Company -7-

BOLT LOCKING HARDHANG
G 55° SERIAL NUMBER N 63 790-00-00-79
VALVE NUMBER 1-B21- FO 13 M SERIAL NUMBER NO SERIAL NUMBER
MANUFACTURER Crosby Valve & Gage Company
MANUFACTURER Crosby valve a dage company
SUPPLIER General Electric Company
PROBLEMS FOUND/CORRECTIVE ACTION TAKEN: (If bolt tightening is required, list torque value used and reference. Identify missing or defective bolt locking hardware.)
T- 5-t screws for piny acceptable
Ele Tob washers for 15/16 with Air expender, were found stylitight were found acceptable
(3) 4 (9/16") Tot wost - 15 on top of oir sight acceptable
(4) Tak weshers an soloreds were incorrectly
(4) Toh. weshers our office.
Installed in some coses.
The belting was compred, a new tab washer installed and the belt netrogued to
installed and the tell
10. ft-165
(5) all other hard ware was found acceptable
W. Reidy
METE: POSITIONER TORQUE WHECKED SOFT/LBS & LOCK
METE: POSITIONER TORQUE OUT
WIRED Accept 177-82
(0-175-16-16) M 5092 - cal 5/82 mm DEPT
WRENCH I.D. NO.0-50 MFH. 007 OWNED BY Commenwealt Edison Col
Cal 6/82
PERFORMED BY 10 At Con on MITNESS 11 Latitude 7-7:22 Crosby Valve & Gage Company CECO Q.C. Dept.

ANUFACTURER	Crosby Valve & Gage Company
UPPLIER	General Electric Company
value used at	CORRECTIVE ACTION TAKEN: (If bolt tightening is required, list torque and reference. Identify missing or defective bolt locking hardware.)
C. SIT	SCREW Tub. MISSING
ARE	A was suspected on
.001	Lence of topsaine sives found
5-7	- screws evoce Rescalor.
GD P	situring of Tob washing on
1x) Lepo	cuè Vand solounde mo
His	Dempleted at the Time?
ne	
C) -10	At I had ware week found
(3) all	
ne	coptable comen will impretted 7-282 7-1
NOTE: POSIT	TIONER TORTHE CHECKED 50FT/LBS WILL J7-2082.
YLOCK WIR	ED accept 7-7.82 / + **
* K	positioning and retorquing completed
on	1110C. WARREN D. 7/7/57
Rotomin	7/7/82. WREWEH # 11.00 was done to W.E. Rudy 7/7/87 WER. 7-17-82 OWNED BY
10-to-16	0. NA - 7-2-82 OWNED BY
WRENCH I.D. I	0

INSPECTION	DATE	7-1-82	
INSPECTION	DATE	1-1-82	•

	1-821-F013PO 53 SERIAL NUMBER NG3 790-00-0075
VALVE NUMBER	1-821-F013P0 53 SERIAL NUMBER N63790-00-0075
MANUFACTURER	Crosby Valve & Gage Company
SUPPLIER	General Electric Company
PROBLEMS FOUND/C	CORRECTIVE ACTION TAKEN: (If bolt tightening is required, list torque and reference. Identify missing or defective bolt locking hardware.)
) set sceen	o acceptable
Stores	ten me tat washing an eglente
Paraite	in tal- waster if SRV and reterand
Nepolitical Control	record and the loting was retrigued
TE 10. bi	11/2
7- 10-6	the land waie was found occeptable
	the search was a
<u> </u>	
	W.E. Reidy 7-1-82
	- LOS 1 LE LIGER & TRUEUS CHECKED SOFT/LE
NITE: POSI	TIONER LOCK WIRED & TORGUE CHECKED SOFT/LB
PER FIG 9	CECO QC FICLD INSPECTED 4-1-82 augst
7727	
1 (200) -4 (1 92)	
WRENCH I.D. NO	. M. 509Z OWNED BY CE CO MM DEPT
DEDECIDATED BY	WITNESS W Lightson 7-7-82. WITNESS W Lightson 7-7-82. CECO. Q.C. Dept.
C	rosby Valve & Gage Company . CECo. Q.C. Dept.

		-+/	182	
INSPECTION	DATE	1/2	180	_
		7	/	

	Value & Cage Company
UFACTURER	Crosby Valve & Gage Company
PLIER	General Electric Company
The Head a	CORRECTIVE ACTION TAKEN: (If bolt tightening is required, list torque nd reference. Identify missing or defective bolt locking hardware.)
<.t.	screw locking tope broken.
10-6	inspected and showed no
1	nce of tapour , Sout Kepland
conde	nce of tapong of Sout replaced
	. LINUERS for Air copula and
· Tal	0 1930000
1-1-	il set sepositiff al wer se
500	+ 111212
lend	Track TORGUE CHEKED W. Reidy 7/2/82
OTE: POS	TIONER TORGUE CHEKED W. Leidy 1/2/80
	VIAK 1.11960 accept 71.92
	The second second
+	11 14 - 1/15 - 11/16
	Ed Wrend M 5092 on 7/7/82
	Ell anema 7/7
	4 × · · · /
1.J. de 1	
•	The second secon
IDENCH I D.	NO. NA - 9-2-82 OWNED BY
AKEHON T.O.	Watter Comon L. WITNESS W Lefter 7-7-8:

	@ 80°
ALVE NUMBER /-	-8-28-F0135 SERIAL NUMBERN 63790- 00-0076
LVE NOIDEN	
ANUFACTURER	Crosby Valve & Gage Company
PPLIÉR	General Electric Company
value used a	CORRECTIVE ACTION TAKEN: (If bolt tightening is required, list torque nd reference. Identify missing or defective bolt locking hardware.)
1. S.T.	SCREWS acceptable.
3 39	8 - 5/16-botting Tab wishing were found
ine cho	pened. These were straighten
	found to be occeptable.
3 -1	washer on SRII. Solouned were replaced
5. 100	dolting was retorqued as required.
and	asting color record
4- 10-	ather had war was found occeptable.
47 00	athe Mit want was the
	NP.
	DS ITIONER TORGHE CHECKED SOFT/LBS Y LOCK WILL ACUST 7-7-82
WITE P	DSITIONER TORQUE CHECKED SDFILES &
MIRED	accept 7-7-82
	207
WRENCH I.D. NO	0. m Sog Z were OWNED BY CECO MM DEPT
PERFORMED BY	WITNESS W School 7-1-8 CECO.VQ.C. Dept.

11	321-F013 U SERIAL NUMBER N 63790-00-004
LVE NUMBER Y	
**** FACTURER	Crosby Valve & Gage Company
IPPLIER	General Electric Company
5 DAZII GILLEN	CORRECTIVE ACTION TAKEN: (If bolt tightening is required, list torque nd reference. Identify missing or defective bolt locking hardware.)
(1) Set 5	crew seal ox
2 2	it ming of Tali washing for
2 Fepes	, conde \$8 Solonists on complete
an C	, Conde 4 Solotion
20	The line wat qc w. Reily 7/2/82
Carana Wi	4 -0 - 1-3-XZ
50. 70	SITIENER TORGEE CHECKED 50FT/LBS & LOCK
v115: 10	+ with
WIRED	accept 2-7-82
	1 + 1 ** 1000
*	Repositioning and retorquing was
	preted of 7/7/82 using wrend
Corry	
- NIS	U. Reidy
	toging Join & 10H-16s WER 7/19/82
* 4; R.	tonging done & 10+1-165 CUER THE
WRENCH I.D.	NO. 1/4-7-2-82 OWNED BY
	1.07.777
PERFORMED BY	Crosby Valve & Gage Company WITNESS Little 7-7-82
TEM CAUSE	Crosby Valve & Gage Company

UFACTURER	Crosby Valve & Gage Company
PLIER	General Electric Company
TEIER	
value used a	CORRECTIVE ACTION TAKEN: (If bolt tightening is required, list torque nd reference. Identify missing or defective bolt locking hardware.)
set se	row seil booken, inspected sing
and t	and occeptable. Re sogled.
27-1	washer on vincellendin isos strugt
1 1 2	tighten
	noids required no rework
-00	the hard wire 1000 found receptal
GU. a	(Clear how was)
	w Ro, Ly
-, P.	SITILVER TORQUE CHECKED SOFTLAS YLOCK
VITE: 10	accept 4.7.92
WIRED	accept 1-1-1-
15.110.00	
DENCH T.D. N	0. m 250 OWNED BY CELO MM DEPT
Little	

		71	,	100	
INSPECTION	DATE		9	1.82	_

BOLT LOCKING HARDWARE INSPECTION FOR REACTOR RECIRC FLOW CONTROL VALVES

ALVE NUMBER 16	33-F060ASERIAL NUMBER 71-2001-001A
ANUFACTURER	Hammel Dahl Company
UPPLIER	General Electric Company
ROBLEMS FOUND/C	ORRECTIVE ACTION TAKEN: (If bolt tightening is required, list torque reference. Identify missing or defective bolt locking hardware.)
Vall BI	DAINET ROLTING - 10 INSP. CO
61-10 FT-1	BS, 3 INSP. W/ BOX WRENCH;
on Dona	IEMS FOUND
AATU ATO	RIYOKE BOLTENG - 4 INSP.C.
200 ET-	LBS. 4 INSP. W/ BOX WRENCH;
NO PROB	LEMS FOUND
A AXIA A TI	OR RODERNALING BOLTENG - ALL
LUCD D	160 ET-185 NO PROBLEMS FOUND
ANTUATI	A BOLTENG - 3 PALICS OF PUSITION
INDECA	TOR BOLAS MISSING LOCKWIRES;
REPLAC	ED*
ACCITATION	
TORQUE	E VALUE REF VENDOR INSTR. MANUAL
include to NO	AI-361 & 398 OWNED BY CONAM INSP. CO.
WRENCH 1.D. NO	C 1 1 1 (2 1 1 24:82
PERFORMED BY	CECO. Q.C. Dept.
*BOLT T	CECO. Project Const. CECO. Project Const. CECO. Q.C. Dept. CECO. Q.C. Dept. CHECKED W/HAND WRENCHES 1 4-1/4" \$ -8- BOLTS) 2.2.4.7/19/82
(2-3/8" ¢	1 4-1/4" \$ -8- BOLTS) 2.7.7. 1/19/80
	그리고 그렇게 하면 400 100 100 100 100 100 100 100 100 100

			1		
INSPECTION	DATE	1	6	82	

BOLT LOCKING HARDWARE INSPECTION FOR REACTOR RECIRC FLOW CONTROL VALVES

ANUFACTURER	Hammel Dahl Company
JPPLIER	General Electric Company
ROBLEMS FOUND/CO	PRRECTIVE ACTION TAKEN: (If bolt tightening is required, list torque reference. Identify missing or defective bolt locking hardware.)
value used and	NNET BOLTENG - 10 INSP. @
OKEIBO	NNET DOLTENG WILBENCH.
566 FT-L	BS. 3 INSP. W/ BOX WRENCH;
NO PROBL	EMS FOUND.
ACTUATO	RIYOKE BOLTENG - 4 INSP. @
200 FT-	LBS. 4 INSP. W/ BOX WRENCH;
NO DOOR	LEMS FOUND
NO FROS	OR ROD COUPLING BOLTING - ALL
ACTUMTO	150 FT-LBS .: NO PROBLEMS FOUND
INSP. @	150 F1-CD3. 100 100000000000000000000000000000000
ACTUATO	OR BOLTING - ALL LOCKWERES
SECURE	•
100011E	VALUE REF VENDOR INSTR. MANUA
YORKUE	VACCE 1001.
UDENCH I D. NO.	AI-361 & 398 OWNED BY CONAM INSP. CO
WKENCH T.D. HO.	4 Sall WITNESS Quest Completed 7-682
	6 / A / A/ HYTHECC / MAN / MAN / CO

LASALLE COUNTY STATION UNIT 1 STRUCTURAL BOLTING TIGHTNESS INSPECTION PROGRAM FOR CONTAINMENT VALVES

Project Construction Department

REVIEWED BY: Daniel C. Shaullin

Site Project Superintendent

APPROVED BY: Daniel L. Shamblin for B. B. STEPHENSON

Site Project Manager

STRUCTURAL BOLTING TIGHTNESS INSPECTION PROGRAM FOR CONTAINMENT VALVES

SCOPE

This inspection program will be limited to safety-related valves inside Containment and will consist of the inspection (and correction if required) of:

- 1. proper tightness, or
- proper installation and condition of bolt locking devices (where required).

for valve structural bolting essential for the valve function relative to safe plant shutdown and containment isolation.

Valve pressure boundary (bonnet and packing gland) bolting is not included in this inspection program.

The containment valves involved in this inspection program are separated by valve function as follows:

- 1. Manual
- 2. Motor Operated
- 3. Air Operated
- 4. Testable Check
- 5. Main Steam Isolation
- 6. Main Steam Relief
- 7. Reactor Recirc. Flow Control

For the valves included in this inspection program, mounting hardware for external valve position indicator switches will be visually inspected to assure bolting is tight against lockwashers or mounting bracket; loose bolts will be noted on the inspection form and tightened with ordinary hand tools.

GUIDELINES FOR BOLT TIGHTNESS INSPECTION

Manufacturer's recommendations will be used for spec. torque value. Where a manufacturer recommends "wrench tight", the following target torque values should be verified:

BOLT DIAM. (in.)	TARGET TORQUE (ft-1bs.)
5/16 1/2	11 47
5/8	94 167
3/4 7/8	270
1 1/4	808

(Reference: 6/28/82 B. F. Pandit letter Attachment "A", Page 2, for ± 15% torque wrench accuracy.)

Above target torque values are for ASTM A193 B-7 material. If "wrench tight" is specified for a different bolt material, CECo. Project Construction Engineer will request applicable values from CECo. Project Engineering and document this information on the inspection form.

Limitorque operator mounting bolt torque should be verified in accordance with the above requirements or the following values, whichever is less:

LIMITORQUE OPERATOR SIZE	BOLT TORQUE (ft1bs.)						
SMB - 000		16		15%* 15%	=	13	
00		140	-	15%	=	119	
1 2		- 85 140		15%	=	119	
3		700		15% 15%	-	190 595	
5				15%	=	629	

Where bolt access prevents use of a torque wrench, the bolt will be inspected (or tightened) with the use of ordinary hand tools by the same person who used the torque wrench on the other bolts. This procedure will be followed without interruption to assure the workman has an accurate sense of the amount of force he has to apply to the hand tool to properly tighten the bolt. Use of hand tools should be noted on the inspection forms.

^{*}max wrench error factor

MANUAL VALVES

Valve yoke/bonnet bolting for manual valves is only safety significant for valves required to be closed for primary containment isolation; none are located inside containment. All manual valves in containment are provided for maintenance or test purposes. A yoke failure on these valves would only allow the disc to back seat and cause no significant problem. Therefore, inspection of the operator structural bolting will not be required.

INSPECTION DOCUMENTATION: none

MOTOR OPERATED VALVES (24 valves total)

The following motor operated valve structural bolting will be inspected for tightness:

- yoke/bonnet bolting
- 2. operator/yoke bolting
- operator issembly bolting essential to the function of the motor operator assembly - visual inspection to assure bolting is tight against lockwashers; loose bolts will be noted on the inspection form and tightened with ordinary hand tools.

INSPECTION DOCUMENTATION: FORM # MOV

AIR OPERATED VALVES

Yoke/bonnet connections are of a single casting and, therefore, inspection is not applicable. Some of the valve designs utilize a bonnet extension piece, which is part of the valve pressure boundary and, therefore, outside the scope of this structural bolting inspection. Operator/yoke bolting is blind inside the valve diaphragm housing and, therefore, inaccessible for this inspection.

INSPECTION DOCUMENTATION: none

TESTABLE CHECK VALVES

The air cylinder actuator is provided for test purposes only, and should not affect the operation of the check valve if it becomes loose or jammed. Therefore, inspection of the actuator bolting will not be required.

INSPECTION DOCUMENTATION: none

MAIN STEAM ISOLATION VALVES (4 valves total)

All actuator bolts have lockwashers, with the exception of hydraulic cylinder tierod nuts. The actuator bolts will be visually inspected to assure they are tight against their lockwashers. The tie-rod nut torque will be checked in accordance with instruction manual requirements.

INSPECTION DOCUMENTATION: FORM # MSIV

MAIN STEAM RELIEF VALVES (18 valves total)

All bonnet & actuator bolting (including air cylinder bolting & solenoid valve mounting bolts) are either lockwired in pairs or have tab washers. The actuator arm bolts have lockwashers. All of these bolt locking devices will be inspected to assure they are installed, installed properly, and are not damaged. This inspection will be directed by the valve manufacturer's representative. Bolt tightness will be checked as directed by the manufacturer's representative, for only those bolts with missing or improperly installed locking hardware. All other bolts with locking hardware installed in acceptable condition can be assumed to be factory tight since the valves have not been subjected to operating vibration loads.

INSPECTION DOCUMENTATION: FORM # SRV

REACTOR RECIRC. FLOW CONTROL VALVES (2 valves total)

All actuator bolting significant to the operation of the valve are either castle lock nuts or lockwired. These locking devices will be inspected for proper installation and condition.

INSPECTION DOCUMENTATION: FORM '# FCV

INSPECTION	DATE	
*1101 -01-01	-	

MOTOR OPERATED VALVE STRUCTURAL BOLT TIGHTNESS INSPECTION

VALVE NUMBER	SERIAL NUMBER
MANUFACTURER	
YOKE/BONNET BOLTING SIZESPEC.TORQUE	(Use space below to diagram bolts not tightened to spec.)
NO. OF BOLTS	
CHECK HERE IF NO PROBLEMS WERE FOUND.	
WRENCH I.D. NO	
OWNED BY	
OPERATOR/YOKE BOLTING	(Use space below to diagram bolts not tightened to spec.)
SIZESPEC.TORQUE	
NO. OF BOLTS	
CHECK HERE IF NO PROBLEMS WERE FOUND.	
WRENCH I.D. NO	
OWNED BY	
OPERATOR ASSEMBLY	
PROBLEMS FOUND/CORRECTIVE ACTION TAKEN	
PERFORMED BYCECo_ Project Const.	WITNESSCECo. Q.C. Dept.
CECO Project Const.	0.00. Q. 0. Day

INSPECTION DATE			
	INSPECTION	DATE	

MAIN STEAM ISOLATION VALVE ACTUATOR BOLT LOCKING HARDWARE AND HYDRAULIC CYLINDER TIE ROD TIGHTNESS INSPECTION

ALVE NUMBER	SERIAL N	UMBER
MANUFACTURER	Rockwell Manufacturing Company	
SUPPLIER	General Electric Company	
HYDRAULIC CYLING	ER TIE ROD BOLTING	(Use diagram below to identify bolts not tightened to spec.)
	ft-1bs. NO. OF BOLTS 4	TOP OF VALVE
	F NO PROBLEMS WERE FOUND.	⊙ ⊙
PROBLEMS FOUND/ value used a		t tightening is required, list torque or defective bolt locking hardware.)
WRENCH I.D. NO	OWNED BY_	
PERFORMED BY	CECo. Project Const.	WITNESS CECo. Q.C. Dept.

INSPECTION	DATE	
	-	

LVE NUMBER	SERIAL NUMBER
ANUFACTURER _	Crosby Valve & Gage Company
UPPLIER	General Electric Company
value used a	CORRECTIVE ACTION TAKEN: (If bolt tightening is required, list torque and reference. Identify missing or defective bolt locking hardware.)
WRENCH I.D. N	OWNED BY
	HITNESS
PERFORMED BY_	Crosby Valve & Gage Company CECo. Q.C. Dept.

-		45	FCV
10.7	DRM	-	FI V
F 1	115.15	-	

INSPECTION	DATE	

BOLT LOCKING HARDWARE INSPECTION FOR REACTOR RECIRC FLOW CONTROL VALVES

ALVE NUMBER	SERIAL NUMBER
MANUFACTURER	Hammel Dahl Company
SUPPLIER	General Electric Company
PROBLEMS FOUND/CO value used and	DRRECTIVE ACTION TAKEN: (If bolt tightening is required, list torque reference. Identify missing or defective bolt locking hardware.)
WRENCH I.D. NO.	OWNED BY
PERFORMED BY	CECo. Project Const. CECo. Q.C. Dept.
	CECo. Project Const.