EXTRA COPY - 2

SC 15460

CED MEMO

PLAINTIFF'S EXHIBIT
MON-2609

MEMO NO. 199

TO: O. G. Ruhmann - F3ED LOCATION

FROM: T. B. Donner - F4WB & P. J. Hughes - F3WD LOCATION

SUBJECT: Area 2A Hastelloy B Valve Handling Summary

☐ REPLY REQ'D. ☐ NO REPLY REQ'D

CEA 3106

DATE 11/22/77

The overall Hastelloy B valve handling has been reviewed in detail. Every valve in the existing plant to be re-used on the project or transferred to surplus has been identified and accounted for in the attached summaries. Every used valve to be obtained from plant surplus and every new valve to be used on CEA 3106 have been identified and accounted for in the attached summaries,

LAM025212

All of the used valves to be obtained from plant surplus (Ⓐ through Ⓗ on the attached list) must be upgraded from Class C to Class B reliability before the February 1978 Step "H" shutdown in Area 2A (Dept. 13). Details for upgrading valves are presented in the attached upgrading summary by P. J. Hughes of CED. All installation work will occur during the February 1978 Step "H" shutdown.

Items 1 and 2 on the Valve List will be upgraded during the Step "H" shutdown from Class C to Class B reliability by the plant (Coordinated by Mark Illian) and then have operators added by the plant. It is important that the overall work on these Items 1 & 2 not exceed an overall duration time of 5 working days.

Herman Williams - F3ED R. L. Whitehead - 1890 P. S. Lewis - 1890 R. B. Bradley - 1890

COPIES: EXTRA COPY # 1 TO F. E. Head - F3EC Mark Illian - 1890 E. D. Moore - 1890 (6 copies)

EXTRA COPY # 2 TO C. H. Ohms - F4EF Dennis Kes - 1890 Bud Kile - F3EC Carl English - 1890

SC 15461

PJH/TBD
11/22/77

Sources of Hastelloy Valves To Be Added

Valves Selected from Plant Surplus by P.J. Hughes several months ago

Identification No. Used On Hast. B Valve List	No. of Valves	Size	Type	Description
(A-1) through (A-10)	10	3/4"	NBA	Ladish 0701-188
(B)	1	1½"	NBC	Ladish 1501-223
(C)	1	2"	NBA	Aloyco 2-50 15817
(D)	1	6"	NBA	Ladish 6001-000
(E) & (G)	* 2	8"	NBA	Ladish 8001-054
(F)	1	8"	NBC	Ladish 8001-028

* 2 more identical valves besides the two tabulated above were located but were not specified for use on CEA 3106.

Valves Purchased To Date By P. J. Hughes

(I) & (J)	2	½"	NBA 903	
(K) (L) & (M)	3	8"	NBC 902	
(N) (O) (P)	3	3/4"	NBF 903	
(Q)	1	1½"	NBE 903	
(R)	1	2"	NBE 903	
(S) & (T)	2	2"	NBE 903	{ Extra valves; function was
(U) (V) & (W)	3	8"	NBE 903	{ cancelled after valves were bought
(X) (Y) & (Z)	3	10"	NBE 903	

Valves Located In Plant Surplus By Earl Moore on 11/2/77

(H-1) & (H-2)	2 valves	3/4"	NBA 904	Flanged, Class B reliability

All of the above valves must be Class B reliability. Any valves obtained from surplus that are not Class B must be upgraded to Class B.

TBD/PJH
Rev. 3, 11/22/77

Valve Code
( ) Valve will become surplus
* Upgrade surplus spare valve and swap for operating valve during step "H."

CEA 3106
AREA 02A

Hastelloy B Valve List

Item No.	Location	Req'd. Size	Exist. Class C Desig.	New or Revised	New Class B Desig.	Remarks
1.	Block at Alkylator Nozzle C	8"	NBA 901	Rev.	NBA 905	Upgrade during step "H"; Valve operator will be added by plant
2.	Block at Alkylator Nozzle D	8"	NBA 901	Rev.	NBA 905	Upgrade during step "H"; Valve operator will be added by plant. Relocate from Item 28 function on old feed line.
3.	Vent & Corrosion coupon valve	2"	(NBA 901)	*	NBA 904	Use (C)
4.	Make-up catalyst block valve	1½"	(NBE 901)	New	NBE 903	Use (Q)
5.	Make-up catalyst check valve	1½"	(NBC 901)	*	NBC 902	Use (B)
6.	Not required (2 valves)	2"	—	New	(NBE 903)	Function replaced by items 31, 32 & 33 of this list. Two of the 3 valves purchased became surplus.
7.	2-101 suction	10"	—	New	NBE 903	New pump, Use (X)
8.	2-103 suction	10"	(8" NBE 901)	New	NBE 903	Use (Y)
9.	2-104 suction	10"	(8" NBE 901)	New	NBE 903	Use (Z)
10.	2-101 check valve	8"	—	New	NBC 902	New pump, Use (K)
11.	2-103 check valve	8"	(6" NBC 901)	New	NBC 902	Use (L)
12.	2-104 check valve	8"	(6" NBC 901)	New	NBC 902	Use (M)
13.	2-101 discharge	8"	—	New	NBE 903	New pump, Use (U)
14.	2-103 discharge	8"	(6" NBE 901)	New	NBE 903	Use (V)
15.	2-104 discharge	8"	(6" NBE 901)	New	NBE 903	Use (W)
16.	2-101 PI (2 valves)	¾"	—	*	NBA 904	New pump, Use (A-1) & (A-2)
17.	2-103 PI (2 valves)	¾"	(½" NBA 902)	*	NBA 904	Use (A-3) & (A-4)
18.	2-104 PI (2 valves)	¾"	(½" NBA 902)	*	NBA 904	Use (A-5) & (A-6)
19.	2-101 PEB	¾"	—	New	NBF 903	New pump, Use (N)
20.	2-103 PEB (2 valves)	¾"	(NBF 902)	New	NBF 903	Use (O) & (P)
21.	2-104 PEB (2 valves)	¾"	(NBF 902)	New	NBF 903	Use (H-1) and (H-2)

CEA 3106
AREA 02A

Hastelloy B Valve List

Item No.	Location	Size	Exist. Class C Desig.	New or Revised	New Class B Desig.	Remarks
22.	TV-717-1,2	8"ϕ12"	Instrumentation			Geo. Kern has verified verbally that these valves are of Class B reliability. Geo. will confirm this by memo.
23.	Strahman ram-type sample valve on 13E2 inlet	1"	(Exists)	—	—	Remove; valve no longer needed.
24.	CEA 2623 Std. Sample Conn.	3/4"	(NBA 902)	*	NBA 904	Use (A-7)
25.	Not required	2"	(NBE 901)			Function replaced by Item 30
26.	FI-718 meter taps (2 valves)	1/2"	(NBA 902)	New	NBA 903	Use (I) & (J)
27.	Fresh benzene feed check valve	8"	(NBC 901)	*	NBC 902	Use (F)
28.	Alkylator Feed Isolation (2 valves)	8"	Relocated to Item 2	*	NBA 905	Use (E) & (G)
29.	Alkylator drain valve	6"	(NBA 901)	*	NBA 905	Use (D)
30.	Drain valve on cooler west head for future line to organic sump	2"	—	New	NBE 903	New function, Use (R)
31.	Z-101 suction drain	3/4"	—	*	NBA 904	Use (A-8)
32.	Z-103 suction drain	3/4"	—	*	NBA 904	Use (A-9)
33.	Z-104 suction drain	3/4"	—	*	NBA 904	Use (A-10)

For more detailed instructions for upgrading Class C valves to Class B, see attached notes of 11/21/77 by P.J. Hughes (2 pages)

SC 15463

LAM025215

HASTELLOY B VALVE UPGRADING – CEA 3106 AREA 2A

HASTELLOY B VALVES OBTAINED FROM PLANT SURPLUS
((A) THROUGH (H) ON ACCOMPANYING VALVE SOURCE LIST)
TO BE UPGRADED FOR HIGH RELIABILITY SERVICE AS FOLLOWS:

1. REPLACE BONNET GASKET WITH HASTELLOY B (ASTM B-333) JACKETED ASBESTOS GASKET LAMONS STYLE 300 OR EQUAL; OR HASTELLOY B AND BLUE ASBESTOS SPIRAL WOUND GASKET.

2. REPACK STEM PACKING WITH BRAIDED ASBESTOS.

3. REPLACE ALL PRESSURE CONTAINING BOLTING WITH ASTM A-193 Gr. B7 ALUMINIZED BOLTS, AND A-194 Gr. 2H HEAVY HEX NUTS.

HYDROTEST AT 275 PSIG.
TAG VALVES WITH NEW MONSANTO VALVE NUMBERS PER MAIN VALVE LIST.

IN ADDITION, ALL VALVES 4" IN SIZE AND LARGER TO BE RADIOGRAPHICALLY EXAMINED TO VERIFY CASTING QUALITY, WITH TEXAS CITY INSPECTION TO VIEW THE FILMS. CONSULT P. GUPTON IF PROBLEMS OCCUR.

LAM025216

Note: The above summarizes and confirms previous communications with CED Construction. CED Construction has already executed this work through Southwest Testing Lab (radiography); Vultex Alloy Corp. (Upgrading, on P.O.'s 3106-9-5157 and 5245); and TNB/Automated Valve Specialties Inc. (Actuator & mounting, on P.O. 3106-9-0199).

SC 15464

P. J. HUGHES – C.E.D. – F3WD 11/21/77 P. 2 OF 2

HASTELLOY B VALVE UPGRADING – CEA 3106 AREA 2A

HASTELLOY B VALVES CURRENTLY IN SERVICE (ITEMS 1 AND 2 ON MAIN VALVE LIST, 8" ALOYCO 127 GATES) TO BE UPGRADED FOR HIGH RELIABILITY SERVICE AS FOLLOWS:

1. REPLACE BONNET GASKET WITH HASTELLOY B (ASTM B-333) JACKETED ASBESTOS GASKET, LAMONS STYLE 300 OR EQUAL.

2. REPACK STEM PACKING WITH BRAIDED ASBESTOS.

3. REPLACE ALL PRESSURE CONTAINING BOLTING WITH ASTM A-193 Gr. B7 ALUMINIZED BOLTS, AND A-194 Gr. 2H HEAVY HEX NUTS.

HYDROTEST AT 275 PSIG.
TAG VALVES WITH NEW MONSANTO VALVE NUMBER "NBA905".

Notes: Above work will be executed at Texas City by Carl English concurrently with installation of TNB actuators, during the February Dept. 13 shutdown for CEA 3106 "H" tie-ins. CED/St. Louis will procure parts for items 1 and 3 above, on P.O. 3106-9-0508; Texas City Instrument Department/Mark Illian has procured all materials required for actuator and actuator mounting.

The entire job on these two valves must be carried out expeditiously. Dept. 13 is scheduled to restart five days after it is shut down.