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To	From	Page 1 of 1
DISTRIBUTION	G.J. Gauck	Date February 21, 1995
Project Title/Work Order		EDT No. 610857
CLOSED OUT TANK 241-SY-101 DACS SYSTEM CHANGE REQUESTS #101-200.		ECN No.

Name	MSIN	Text With All Attach.	Text Only	Attach./ Appendix Only	EDT/ECN Only
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O.S.T.I. (2)	L8-07	X			
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D.C. Larsen	R1-51				X
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Waste Tank Operations Shift Office	T4-01	X			

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324
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ENGINEERING DATA TRANSMITTAL

Page 1 of 1
1. EDT No 610857

2. To: (Receiving Organization) S.H. Rifaey, Waste Tank Farm Plant Engineering H1720		3. From: (Originating Organization) G.J. Gauck, Test Engineering 7CH40		4. Related EDT No.:	
5. Proj./Prog./Dept./Div.: SY-101 Mitigation		6. Cog. Engr.: G.J. Gauck		7. Purchase Order No.: N/A	
8. Originator Remarks: N/A				9. Equip./Component No.: N/A	
				10. System/Bldg./Facility:	
11. Receiver Remarks:				12. Major Assm. Dwg. No.: N/A	
				13. Permit/Permit Application No.: N/A	
				14. Required Response Date: N/A	

15. DATA TRANSMITTED					(F)	(G)	(H)	(I)
(A) Item No.	(B) Document/Drawing No.	(C) Sheet No.	(D) Rev. No.	(E) Title or Description of Data Transmitted	Approval Desig- nator	Reason for Trans- mittal	Origi- nator Dispo- sition	Receiv- er Dispo- sition
1	WHC-SD-WM-CMD-002		0	Closed out Tank 241-SY-101 DACS System Change Requests #101 - 200.	Q	1	1	

16. KEY					
Approval Designator (F)		Reason for Transmittal (G)		Disposition (H) & (I)	
E, S, Q, D or N/A (see WHC-CM-3-5, Sec.12.7)		1. Approval	4. Review	1. Approved	4. Reviewed no/comment
		2. Release	5. Post-Review	2. Approved w/comment	5. Reviewed w/comment
		3. Information	6. Dist. (Receipt Acknow. Required)	3. Disapproved w/comment	6. Receipt acknowledged

17. SIGNATURE/DISTRIBUTION (See Approval Designator for required signatures)											
(G)	(H)	(J) Name	(K) Signature	(L) Date	(M) MSIN	(J) Name	(K) Signature	(L) Date	(M) MSIN	(G)	(H)
1	/	Cog.Eng. G.J. Gauck	<i>G.J. Gauck</i>	3-2-95	74-07						
1	/	Cog. Mgr. G.T. Bear	<i>G.T. Bear</i>	3-2-95	81-57						
1	/	QA M.L. McElroy	<i>M.L. McElroy</i>	3-2-95	51-57						
		Safety									
		Env.									
3		R.W. Truitt									
3		A.M. Ermi									

18. G.J. Gauck <i>G.J. Gauck</i> 3-2-95 Signature of EDT Date Originator		19. Authorized Representative Date for Receiving Organization		20. G.T. Bear <i>G.T. Bear</i> 3-2-95 Cognizant Manager Date		21. DOE APPROVAL (if required) Ctrl. No. ☐ Approved ☐ Approved w/comments ☐ Disapproved w/comments	
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BD-7400-172-2 (04/94) GEF097

BD-7400-172-1

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RELEASE AUTHORIZATION

Document Number: WHC-SD-WM-CMD-002, REV 0

Document Title: CLOSED OUT TANK 241-SY-101 DACS SYSTEM CHANGE
REQUEST #101-200

Release Date: 3/7/95

**This document was reviewed following the
procedures described in WHC-CM-3-4 and is:**

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WHC Information Release Administration Specialist:

Kara M. Broz

March 7, 1995

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A-6001-400.2 (09/94) WEF256

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SUPPORTING DOCUMENT

1. Total Pages 155

2. Title

CLOSED OUT TANK 241-SY-101 DACS SYSTEM CHANGE
REQUEST #101-200.

3. Number

WHC-SD-WM-CMD-002

4. Rev No.

0

5. Key Words

MIXING PUMP, DACS, SYSTEM CHANGE REQUEST,
ACCEPTANCE TEST PROCEDURE.

6. Author

Name: G.J. Gauck

Signature

Organization/Charge Code 7CH40/N2B2H

7. Abstract

This document provides a record closed out System Change Request #101-200 used during the development of the 241-SY-101 Hydrogen Mitigation Project Data Acquisition Control System.

8.

RELEASE STAMP

OFFICIAL RELEASE
BY WHC
DATE MAR 08 1995

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HYDROGEN MITIGATION TEST PROJECT
System Change Request Status

DATE: 01-31-95

C	SCR	TITLE	DISPOSITION				CHANGE INSTALLED	CHANGE VERIFIED	ATP REQUIRED/ COMPLETE
			APPROVE	REJECT	DEFER	CANCEL			
C	101	No alarm indication when station 8 fails due to a communication loss to pump.	2-23-93			4-29-93			N
C	102	Incorrect welcome screen for station 5.	2-2-93				2-3-93	2-4-93	N
C	103	Change alarm and abort limits for strain gauges. SCR #105 closed on 10-6-93 following testing on 7-30-93 and the associated modified software reflecting new strain alarm setpoints superseded and canceled SCR #103.	2-4-93			10-6-93	2-4-93	2-4-93	Y Canceled
C	104	Change motor oil temperature on PDISPLAY screen From: °C To: °F	2-9-93				2-10-93	2-17-93	Y ATP 046 C
C	105	Strain gauge range value change and new alarm settings.	2-9-93				2-14-93	10-6-93	Y ATP 046 (17B), ATP 058 (12A), ATP 061 (17C), ATP 062 (1B) C
C	106	Add new test sections and correct procedural errors in ATP (ECN 169277).	2-9-93 [EC]				2-5-93	2-5-93	Y ATP 046 C
C	107	High vent flow abort coil doesn't trip when signal exceeds abort limit.	2-9-93				2-5-93	2-5-93	Y ATP 046 C
C	108	Add Tags XIR12AN1, and XIR12AN2 to the Mixer Pump screen (MPR12A). (See CR 34)	2-9-93				2-10-93	2-14-93	N
C	109	Remove alarms for DACS tags NIR17B02 and NIR17B03.	2-23-93		2-9-93		3-30-93	4-1-93	N
C	110	Pump motor control strategy does not work on station 7.	2-9-93				2-13-93	2-14-93	N
C	111	Audible alarm triggered from the PLC/MODICON I/O in the event of an abort.	2-9-93				2-13-93	2-17-93	N

HYDROGEN MITIGATION TEST PROJECT
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C	SCR	TITLE	DISPOSITION				CHANGE INSTALLED	CHANGE VERIFIED	ATP REQUIRED/ COMPLETE
			APPROVE	REJECT	DEFER	CANCEL			
C	112	Implement status block in MODICON PLC to check health of MODICON I/O modules.	2-9-93				2-13-93	2-17-93	N
C	113	Change the units for PDPBASE: From: PSID To: PSIG	2-9-93				2-10-93	2-14-93	N
C	114	Add DACS tags TT10001, NITHDR01, and NIR17B01 to MISC.PRN file for archive.		2-16-93					N
C	115	Replace existing Modicon location for Mixer Pump Gas Pressure.	2-16-93				2-17-93	2-17-93	Y ATP 058 C
C	116	Modify system trend list for special variables.	2-16-93				2-18-93	2-18-93	N
C	117	Add an audible alarm that occurs 30 seconds prior to the end of a Phase A test.	2-16-93				2-17-93	2-19-93	N
C	118	Remove all temperature, SPG alarm and abort indications from VDTT's	2-16-93 [EC]				2-17-93	2-18-93	N
C	119	Change VDTT low frequency strain alarms.	2-18-93				2-18-93	2-18-93	Y ATP 046 C
C	120	History files to be archived automatically on Station 9 C drive and Bernoulli and deleted from station 5 upon successful transfer.	2-18-93 [EC]				2-18-93	2-18-93	N
C	121	Change 2 hour H2 sensor from MOS to GC.	2-18-93				2-18-93	2-18-93	Y ATP 046 C
C	122	Change VDTT high frequency strain alarm values	2-23-93				8-31-93	8-31-93	Y ATP 046 C
C	123	Cleanup screen NH2VHR7A		4-6-93	2-23-93				N

HYDROGEN MITIGATION TEST PROJECT
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C	SCR	TITLE	DISPOSITION				CHANGE INSTALLED	CHANGE VERIFIED	ATP REQUIRED/ COMPLETE
			APPROVE	REJECT	DEFER	CANCEL			
C	124	Change the range for DACS NIR17B01 from 0-10% to 0-1.0%.	-23-93				3-29-93	3-29-93	N
C	125	Correct archive data problems for DACS tags TIR17B05, TIR17B06, TIR17B21, TIR17B22, TITMSY15, NIR05A01, NIR17B01, NITJSY11, FTE50001, FTE50002,	2-23-93			8-31-93			N
C	126	Provide "Instrument Problem" DACS tag associated with Minimum Instrument List.	3-9-93				8-31-93	8-31-93	N
C	127	Remove H2LOOK and respective references from DACS and other documents (ARP, AOP) and replace with reference to screen GASSUM.	3-23-93		3-9-93		3-30-93	3-30-93	N
C	128	Change screen STRNALM descriptions for DACS tags XIR12AN1 to Mixer Pump Casing Vibration and DACS tag XIR12AN2 to Mixer Pump Support Column Vibration.	3-9-93				4-1-93	4-1-93	N
C	129	Correct status block on screen MSPEC 0, currently shows both error and OK.		4-6-93	3-9-93				N
C	130	HYDROGEN Screen: The top right corner button linkages should be changed. Link " Show All H2 Values" to GASSUM and link "Other Gases" to NH2VHR7A.		3-23-93	3-9-93				N
C	131	Change description for DACS tag NIR17B01 from 0-10% to 0-1%.	3-9-93				4-1-93	4-1-93	N
C	132	When the alarm limit is reached for test duration on the CSMAIN, the limit reads 10 SEC it should read 30 SEC.	3-9-93				3-30-93	3-30-93	N
C	133	Add display for MIT/VDTT high frequency alarm and abort to screen STRNALM.		4-6-93	3-9-93				N
C	134	Software change to correct temperature output on DACS screen from DACS weather station thermocouple.	3-23-93			4-1-93			N

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C	SCR	TITLE	DISPOSITION				CHANGE INSTALLED	CHANGE VERIFIED	ATP REQUIRED/ COMPLETE
			APPROVE	REJECT	DEFER	CANCEL			
C	135	Add DACS tags to complete minimum instrument list report.	3-23-93				4-1-93	4-1-93	N
C	136	Request clarification in Phase A test procedure on how to determine elapsed time of pump operation.		3-30-93	3-23-93				N
C	137	Remove all blocks from the DACS strategy that are associated with VDTT sensors that are declared out-of-commission.	3-23-93				3-30-93	3-30-93	N
C	138	Remove various tags (Pages 11 and 12 of the Rev 1 I/O Channel List) from the DACS software and the I/O Channel List.	3-23-93				3-30-93	3-30-93	N
C	139	Change the archive rate, file names, and file contents for various .PRN files.	3-23-93				3-31-93	4-1-93	N
C	140	Delete Hydrogen Screen	3-23-93				3-30-93	3-30-93	N
C	141	Add "click" button to GAS\$SUM screen. Link button to NH2VHR7A	3-23-93			3-30-93			N
C	142	Remove "Other Alarms" indicator from control screens.	3-23-93				3-30-93	4-1-93	N
C	143	Standardize Dacs Screens.	3-30-93				3-30-93	3-30-93	N
C	144	Modify software to provide a station 5 and 8 indication that the E-stop button has been manually tripped.	3-30-93				4-1-93	4-1-93	Y ATP 046 C
C	145	Control GC3 calibration valve using digital output from DACS.	3-30-93			4-29-93			Y Canceled
C	146	Create buttons to enable and disable NRR17B01 for pump installation.	3-30-93				4-1-93	4-1-93	Y ATP 046 C
C	147	Use PLC logic to remove out-of-range bit for hydrogen before doing abort comparison. Remove offset from hydrogen measurement.	3-30-93			8-31-93			N

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C	SCR	TITLE	DISPOSITION				CHANGE INSTALLED	CHANGE VERIFIED	ATP REQUIRED/ COMPLETE
			APPROVE	REJECT	DEFER	CANCEL			
C	148	Correct how alarm event summary files are saved.	3-30-93				4-1-93	4-1-93	N
C	149	Add step(s) in Phase A test procedure to shutdown and restart software for stations 5 and 8 prior to any pump operation.	3-30-93				8-24-93	8-24-93	Y ATP 046 C
C	150	Change F9 key to require a two key action to change from automatic to manual (Alt-F9).	4-6-93				4-24-93	4-24-93	N
C	151	Change RSRPRFL on DACS screens to MSMAIN	4-6-93				4-27-93	4-27-93	N
C	152	Change I/O Channel List "Displays" from Hydrogen and NH2VHR7A to GASSUM and SUMMARY respectively.	4-6-93			8-31-93			N
C	153	Lower instrument fail alarm for NITKSY06.	4-6-93				4-1-93	4-1-93	N
C	154	Activate alarm for MIP0001	4-6-93				4-1-93	4-1-93	N
C	155	Create ROLLOVER screen.	4-6-93				4-1-93	4-1-93	N
C	156	Change ROLLOVER screen.	4-6-93				4-27-93	9-7-93	N
C	157	Disable the ENABLE AND DISABLE buttons on the MANABRT screen on Sta.1 and 3 in the 200E/2750/D221.	4-6-93			4-24-93			N
C	158	1. Add ROLLOVER button to GASSUM and SUMMARY. 2. Fix MAP button to IOSTATUS screen. 3. Fix various cursor and button problems on screen HTSEL14A.	4-6-93				4-27-93	9-7-93	N
C	159	Change tag names for PIR17B04 and PIR17B01 on the minimum instrument list.	4-6-93				4-24-93	4-24-93	N
C	160	Change VDTT archive rate from 12 seconds to 150 seconds.	4-6-93				4-24-93	4-24-93	N
C	161	Archive strain gauge values (low frequency) in file called STRN.PRN. Archive rate is 150 seconds.	4-6-93				4-24-93	4-24-93	N
C	162	Create minimum instrument list alarm template	4-6-93			4-29-93			N

HYDROGEN MITIGATION TEST PROJECT
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C	SCR	TITLE	DISPOSITION				CHANGE INSTALLED	CHANGE VERIFIED	ATP REQUIRED/ COMPLETE
			APPROVE	REJECT	DEFER	CANCEL			
C	163	1. Add DACS screens. 2. Delete DACS screens. 3. Modify DACS screens. 4. Change screen names.	4-12-93				4-27-93	9-7-93	N
C	164	Add DACS tag FTE50003. Tag is to be used for SY Tank Farm Exhaust Flow.	4-12-93				4-24-93	4-24-93	Y ATP 046 C
C	165	Add screens and related data for new MIT #2. Write PLC ladder logic to operate mit #2.	4-12-93				8-31-93	8-31-93	Y ATP 062 C
C	166	Remove alarm and abort setpoints for radar gauge. Add abort indication for FIC.	4-12-93				4-30-93	4-30-93	Y ATP 046 C
C	167	Add requirements, including alarm and abort indications, for ARM.	4-12-93				4-23-93	6-1-93	Y ATP 046 C
C	168	Add indications for high frequency strain alarm and abort on STRNALM screen.	4-12-93				4-24-93	4-24-93	N
C	169	Revise I/O Channel List	4-20-93				6-29-93	6-29-93	N
C	170	Change PUMPBUMP to permit manually entering a pump speed value between 380 and 1000 RPM.	4-20-93				8-31-93	8-31-93	Y ATP 046 C
C	171	Fix instrument problem alarm to clear ATP Test Exception #65.	4-27-93				8-31-93	8-31-93	Y ATP 046 C

HYDROGEN MITIGATION TEST PROJECT
System Change Request Status

DATE: **01-31-95**

C	SCR	TITLE	DISPOSITION				CHANGE INSTALLED	CHANGE VERIFIED	ATP REQUIRED/ COMPLETE
			APPROVE	REJECT	DEFER	CANCEL			
C	172	Exchange data for F-NH3C and FT-N2OC.	4-27-93				8-31-93	8-31-93	Y ATP 046 C
C	173	Delete rate of H2 release from strategy and MANABRT screen.	4-27-93				4-24-93	4-24-93	N
C	174	Add Phase B test control logic to station 8.	4-27-93				7-9-93	10-12-93	Y ATP-062 C
C	175	Change range for PDTMSY12.	4-27-93				4-24-93	4-24-93	N
C	176	Add "ENABLE ABORT COIL" button to all CSMAIN screens.	4-27-93				4-24-93	4-24-9	N
C	177	Add missing .GRP files from ASMAIN.	4-27-93				4-30-93	4-30-93	N
C	178	Incorporate revised scaling factors into software so that strain values displayed are correct.	4-29-93				4-30-93	4-30-93	Y ATP 046 (17B), ATP 058 (12A), ATP 061 (17C), ATP 062 (1B) C
C	179	Remove GC3-AREA DACS tag.	4-29-93				4-30-93	4-30-93	N
C	180	Correct Minimum Instrument List Report.	4-29-93				4-30-93	4-30-93	N
C	181	Link TAG FTE50001 to turn red at low alarm on ROLLOVER screen	5-4-93				4-30-93	4-30-93	N
C	182	VDTT screen update & revision		8-31-93	5-4-93				N
C	183	Change faulty VDTT sensors to S.O.O.C.	5-4-93				5-5-93	5-5-93	N

HYDROGEN MITIGATION TEST PROJECT
System Change Request Status

DATE: 01-31-95

C	SCR	TITLE	DISPOSITION				CHANGE INSTALLED	CHANGE VERIFIED	ATP REQUIRED/ COMPLETE
			APPROVE	REJECT	DEFER	CANCEL			
C	184	Fix TANK screen	5-4-93				5-5-93	5-5-93	N
C	185	Correct various screen deficiencies.	5-4-93				5-11-93	5-11-93	N
C	186	Remove low alarm from TAG NITKSY11	5-4-93				5-11-93	5-11-93	N
C	187	Correct various corrupt screens	5-4-93				5-5-93	5-5-93	N
C	188	Fix station 8 bootup problem.	5-4-93				5-11-93	5-11-93	N
C	189	Add PLC logic for GC2	5-25-93				6-9-93	6-9-93	N
C	190	Reconfigure stations 7 & 8	5-25-93				8-24-93	8-24-93	N
C	191	Change scaling for MSPEC Hydrogen.	5-25-93				8-31-93	8-31-93	N
C	192	Change pump bump discharge pressure & motor amp limits.	5-25-93			6-1-93			Y Canceled
C	193	Revise ARM signal assignments to DACS (priority change)	5-27-93				5-27-93	5-28-93	Y ATP-046 C
C	194	Alarm and abort limit changes for pump speed	6-1-93				6-9-93	6-9-93	Y ATP-046 C
C	195	Various changes	6-29-93				8-31-93	8-31-93	N

HYDROGEN MITIGATION TEST PROJECT
System Change Request Status

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C	SCR	TITLE	DISPOSITION				CHANGE INSTALLED	CHANGE VERIFIED	ATP REQUIRED/ COMPLETE
			APPROVE	REJECT	DEFER	CANCEL			
C	196	Change range for GC-2 from ppm to percent (%)	6-29-93				8-31-93	8-31-93	Y ATP-062 C
C	197	Remove Auto/Manual block report	7-6-93				8-31-93	8-31-93	N
C	198	Modify Kinetics Computer Program	7-6-93				8-31-93	8-31-93	N
C	199	Reconfigure all DACS and RSS stations ARCNET	7-6-93				8-31-93	8-31-93	N
C	200	Whittaker H2 signal dropout noise	7-9-93				8-31-93	8-31-93	N

Change Request

originals given to Vargo for signature from
LAN L. 2/23/93

CR No.: 101

Sheet 1 of 1

1.	Hardware/Software/Document Name: DACS Station 8		
	Version/Revision: _____		
2.	CR Type: ☐ Development ☒ Correct Problem ☐ Enhancement ☐ Other		
3.	Short Task Description/Justification: ☐ See Attached No communication failure alarm at Station 8 during pump run. Upon completion of the Low flow ATP test on Friday, 1-29-93, an offline test was conducted with the following result: A communication failure was created (the modem was turned off) between station 8 and the motor prior to (1) the start of a low flow test and (2) 2 minutes into a 5 minute test. There was no audio or visual indication that station 8 had failed except for the stoppage of the "time at speed" indicator.		
4.	Detail Description: ☐ See Attached Modify DACS software to create an audio and visual alarm indicator at station 5 any time there is a communication loss between the pump operating screen (Station 7 or 8) and the pump. The alarm indication should be similar to a normal system alarm such as high H2, etc.		
5.	Originator Priority: [2] 1 = Critical 2 = Very Important 3 = Important 4 = Interesting		
6.	Originator: Terry Laney	Date: 2 / 1 / 93	Phone No.: (509)-373-1779
7.	Disposition: _____ Priority (See 5.) [] Classification: [] I [] II ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Defer	Implement: _____ ☐ Yes ☐ Wait for approval ☐ At next mandatory change	<div style="text-align: center; border: 1px solid black; padding: 10px;"> DACS test required </div>
8.	TRG ¹ /CCB ² Approval: <u>G.F. Vargo</u> Date: <u>2/23/93</u> <u>M. Bear</u> Date: <u>2/23/93</u> <u>Arthur Villalobos</u> Date: <u>2/23/93</u>		
9.	Assigned to: _____ Phone No. _____		
10.	Copy to originator: ☐ After CCB/TRG disposition (Date: ____/____/____) ☐ After change implementation (Date: ____/____/____)		
11.	Change Comments or Hardware/Software/Documents Affected by Change: ☐ See Attached		
12.	How was change implemented? ☐ ECN _____ ☐ Ltr No. _____ ☐ This CR Completed by: _____ Date: ____/____/____		
14.	WHC Verify Implementation: _____ Date: ____/____/____ Phone No. _____		

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 102

Sheet 1 of 1

1.	Hardware/Software/Document Name: <u>DACS SCREEN STATION 5</u>	Version/Revision:
2.	CR Type: ☒ Development ☐ Correct Problem ☐ Enhancement ☐ Other	
3.	Short Task Description/Justification: ☐ See Attached INCORRECT WELCOME SCREEN (NO "MAP") DURING STATION 5 REBOOT. (STA. 5 HAS TWO WELCOME SCREENS) (ONE FOR REBOOT ONE NORMAL)	
4.	Detail Description: ☐ See Attached CHANGE WELCOME SCREEN FOR STATION 5 DURING REBOOT TO BE THE SAME AS SCREEN WELCOME SCREEN WHEN STATION 5 IS NORMALLY RUNNING. SHOULD CONTAIN "MAP" CALL OUT.	
5.	Originator Priority: <u>[2]</u> 1 = Critical 2 = Very Important 3 = Important 4 = Interesting	
6.	Originator: <u>G. GAUCK</u> Date: <u>2/11/93</u> Phone No.: <u>3-1779</u>	
7.	Disposition: <u>[2]</u> Priority (See 5.) Classification: ☒ UH ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Defor Implement: ☒ Yes ☐ Wait for approval ☐ At next mandatory change ☐ DACS test required	
8.	TRG/ICB ² Approval: <u>C. M. [Signature]</u> Date: <u>02/02/93</u> Date: <u>2/2/93</u> Date: <u>2/2/93</u>	
9.	Assigned to: <u>[Signature]</u> Phone No.	
10.	Copy to originator: ☐ After CCB/TRG disposition (Date: <u> </u>) ☐ After change implementation (Date: <u> </u>)	
11.	Change Comments or Hardware/Software/Documents Affected by Change: ☐ See Attached	
12.	How was change implemented? ☐ ECN ☐ Ltr No. ☐ This CR	
13.	Completed by: <u>[Signature]</u> Date: <u>2/12/93</u>	
14.	WHC Verify Implementation: <u>[Signature]</u> Date: <u>2/4/93</u> Phone No.	

Form #: HMTP-CR-1 (1-14-93)

1 = CLASS I 2 = CLASS II
WHC-SD-WM-CMD-002 Rev. 0

Page 14

Change Request

Sheet 1 of 1

Canisles. 10-6-93

Form #: HMTP-CR-1 (1-14-93)

1 = CLASS I 2 = CLASS II

Page 15

4-93) Identification of H. fragrans strain shown

HYDROGEN MITIGATION TEST PROJECT

Change Request

ORIGINAL

CR No.: 104

Sheet 1 of 1

1.	Hardware/Software/Document Name: DACS screen PDISPLAY		
	Version/Revision:		
2.	CR Type: ☐ Development ☒ Correct Problem ☐ Enhancement ☐ Other		
3.	Short Task Description/Justification: ☐ See Attached Change motor oil temperature units on screen PDISPLAY from °C to °F.		
4.	Detail Description: ☐ See Attached Link screen PDISPLAY with motor Oil Temperature in °F. Ensure the proper alarm/abort setpoints and range are used for DACS tags TIR12A01 and TIR12A02. Currently the screen on station 8 shows DACS tags TIR12A01 and TIR12A02 failed high while the same tags are failed low on station 5.		
5.	Originator Priority: [2] 1 = Critical 2 = Very Important 3 = Important 4 = Interesting		
6.	Originator: G. J. Gauck	Date: 2 / 9 / 93	Phone No.: (509) 373-1779
7.	Disposition: Priority (See 5.) [2] Classification: ☐ ☒ ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Defer	Implement: ☒ Yes ☐ Wait for approval ☐ At next mandatory change	☒ DACS test required
8.	TRG ¹ /CCB ² Approval: <i>[Signature]</i> Date: 2/9/93 <i>[Signature]</i> Date: 2/9/93 <i>[Signature]</i> Date: 2/9/93		
9.	Assigned to: _____ Phone No. _____		
10.	Copy to originator: ☐ After CCB/TRG disposition (Date: ____/____/____) ☐ After change implementation (Date: ____/____/____)		
11.	Change Comments or Hardware/Software/Documents Affected by Change: ☐ See Attached <i>Note Station 8 tags are not alarmed, (only station 5)</i>		
12.	How was change implemented? ☐ ECN _____ ☐ Ltr No. _____ ☐ This CR		
13.	Completed by: <i>[Signature]</i> Date: 2/10/93		
	WHC Verify Implementation: <i>[Signature]</i> Date: 2/17/93 Phone No. 6-5662		

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 105

Sheet 1 of 5

1.	Hardware/Software/Document Name: I/O Channel List		
	Version/Revision: 0		
2.	CR Type: ☐ Development ☒ Correct Problem ☐ Enhancement ☐ Other		
3.	Short Task Description/Justification: ☐ See Attached		
	Range Values for strain gages are being changed to improve sensitivity within expected voltage range.		
4.	Detail Description: ☒ See Attached		
	1. Incorporate revised scaling factors into software so that strain vaules displayed are correct. 2. Revise averaging as shown in comment column in the attached table. 3. Incorporate changes into Test Dacs Input/Output List -- add digital inputs for VOTT, riser 14A & 1B, and MIT, riser 17B. Notes: (1) According to Dave Wallace, there are no dynamic strain limits for the mixer pump. (2) Software Engineer is to determine text string description based on description for new digital inputs based on description in attachment 1.		
5.	Originator Priority: [2] 1=Critical 2=Very Important 3=Important 4=Interesting		
6.	Originator: J. H. Bussell	Date: 2 / 4 / 93	Phone No.: (509) 376-9621
7.	Disposition:	Priority (See 5.) [2] Classification: [] [4] ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Defer	Implement: ☒ Yes ☐ Wait for approval ☐ At next mandatory change <div style="border: 1px solid black; padding: 5px; text-align: center;"> ☒ [X] DACS test required </div>
8.	TRG ¹ /CCB ² Approval:		
	<i>J. H. Bussell</i>		Date: 2 / 4 / 93
	<i>C. P. Molteni</i>		Date: 2 / 9 / 93
	<i>H. K. Varco</i>		Date: 2 / 9 / 93
9.	Assigned to: _____ Phone No. _____		
10.	Copy to originator: ☐ After CCB/TRG disposition (Date: ____/____/____) ☐ After change implementation (Date: ____/____/____)		
11.	Change Comments or Hardware/Software/Documents Affected by Change: ☐ See Attached		
12.	How was change implemented? ☐ ECN _____ ☐ Ltr No. _____ ☐ This CR		
13.	Completed by: <i>J. H. Bussell</i> Date: 2 / 14 / 93		
	WHC Verify Implementation: <i>Ruben Mendez</i> Date: 10 / 6 / 93 Phone No. 373-2007		

HYDROGEN MITIGATION TEST PROJECT

Change Request (Continuation Sheet)

CR No.: 105

Sheet 2 of 5

Item No. [13] [14] [11]

Change Request Attachment 1							Page 1 of 4
DACS Tag No.	Description	Signal	Process Variable Range (microstrain)	I/O Location	Alarm Points (microstrain)	Analog Scaling Factor (microstrain/volt)	Comments
Page 17							
WIR17801	Strain Gage in Riser 17B at Level 465.5" (H11)	+/- 10 VDC	+/- 2139	14.2.5.4	Alarm: +/- 267 Abort: +/- 357	213.904	Alarm and abort limits based on two functional strain gages. Set averaging on modicon module to 64 samples per average.
WIR17802	Strain Gage in Riser 17B at Level 465.5" (H11)	+/- 10 VDC	+/- 2139	14.2.6.4	Alarm: +/- 267 Abort: +/- 357	213.904	Alarm and abort limits based on two functional strain gages. Set averaging on modicon module to 64 samples per average.
WIR14A01	Strain Gage in Riser 14A at Level 502" (VD11)	+/- 10 VDC	+/- 2139	14.2.5.1	Alarm: +/- 237 Abort: +/- 312 546	213.904	Alarm and abort limits based on two functional strain gages. <u>CGM 2/4/93</u> Set averaging on modicon module to 64 samples per average.
WIR14A02	Strain Gage in Riser 14A at Level 502" (VD11)	+/- 10 VDC	+/- 2139	14.2.6.1	Alarm: +/- 237 Abort: +/- 312 546	213.904	Alarm and abort limits based on two functional strain gages. <u>CGM 2/4/93</u> Set averaging on modicon module to 64 samples per average.
WIR14A03	Strain Gage in Riser 14A at Level 502" (VD11)	+/- 10 VDC	+/- 2139	14.2.5.2	Alarm: +/- 237 Abort: +/- 312 546	213.904	Alarm and abort limits based on two functional strain gages. <u>CGM 2/4/93</u> Set averaging on modicon module to 64 samples per average.
WIR16A01	Strain Gage in Riser 16A at Level 502" (VD11)	+/- 10 VDC	+/- 2139	14.2.6.2	Alarm: +/- 237 Abort: +/- 312 546	213.904	Alarm and abort limits based on two functional strain gages. <u>CGM 2/4/93</u> Set averaging on modicon module to 64 samples per average.

Signature: T. Carey for J.H.B. Date: 2, 9, 92

HYDROGEN MITIGATION TEST PROJECT

Change Request (Continuation Sheet)

Item No. 13 (1/4) (111)

Sheet 3 of 5

CR No.: 105

Change Request Attachment 1

Page 2 of 4

DACS Tag No.	Description	Signal	Process Variable Range (microstrain)	I/O Location	Alarm Points (microstrain)	Analog Scaling Factor (microstrain/volt)	Comments
WIR1BA02	Strain Gage in Riser 18 at Level 530" [VDT1]	+/- 10 VDC	+/- 2139	14.2.6.7	Alarm: +/- 237-409 GFV 43317 Abort: +/- 317-546	213.904	Alarm and abort limits based on two functional strain gages. 3 CG71 2/4/83 Set averaging on modicon module to 64 samples per average.
WIR1BA03	Strain Gage in Riser 17B at Level 530" [VDT1]	+/- 10 VDC	+/- 2139	14.2.6.3	Alarm: +/- 237-409 GFV 43317 Abort: +/- 317-546	213.904	Alarm and abort limits based on two functional strain gages. 3 CG71 2/4/83 Set averaging on modicon module to 64 samples per average.
page 15							
WIR12A01	Pump Support Column Strain #1 45 Deg	+/- 10 VDC	+/- 684	14.2.5.5	Alarm: +/- 145.5 Abort: +/- 194	68.376	Alarm and abort limits based on two functional strain gages. Set averaging on modicon module to 64 samples per average.
WIR12A02	Pump Support Column Strain #2 135 Deg	+/- 10 VDC	+/- 684	14.2.6.5	Alarm: +/- 145.5 Abort: +/- 194	68.376	Alarm and abort limits based on two functional strain gages. Set averaging on modicon module to 64 samples per average.
WIR1BA03	Pump Support Column Strain #3 225 Deg	+/- 10 VDC	+/- 684	14.2.5.6	Alarm: +/- 145.5 Abort: +/- 194	68.376	Alarm and abort limits based on two functional strain gages. Set averaging on modicon module to 64 samples per average.
WIR12A04	Pump Support Column Strain #4 315 Deg	+/- 10 VDC	+/- 684	14.2.6.6	Alarm: +/- 145.5 Abort: +/- 194	68.376	Alarm and abort limits based on two functional strain gages. Set averaging on modicon module to 64 samples per average.
New DACS Items - Digital Inputs							

Signature: T. Lang

Date: 2/9/83

Form #: HMTF-CRCS-2 (1-14-93)

HYDROGEN MITIGATION TEST PROJECT

Change Request (Continuation Sheet)

Item No. 113 (V4) (111)

CR No.: 105
Sheet 4 of 5

Change Request Attachment 1							Page 3 of 4
DACS Tag No.	Description	Signal	Process Variable Range (microstrain)	I/O Location	Alarm Points (microstrain)	Analog Scaling Factor (microstrain/volt)	Comments
WHF17B1L	MIT # 1 Strain Gage High Frequency Strain Alarm	+/- 5 VDC	N/A	15.1.4.1	N/A	N/A	TTL Input from Strain Gage Signal Processor. Alarm setpoint set at +/- 25 microstrain.
WHF17B1B	MIT # 1 Strain Gage High Frequency Strain Abort	+/- 5 VDC	N/A	15.1.4.2	N/A	N/A	TTL Input from Strain Gage Signal Processor. Alarm setpoint set at +/- 34 microstrain.
WHF17B2L	MIT # 2 Strain Gage High Frequency Strain Alarm	+/- 5 VDC	N/A	15.1.5.1	N/A	N/A	TTL Input from Strain Gage Signal Processor. Alarm setpoint set at +/- 25 microstrain.
WHF17B2B	MIT # 2 Strain Gage High Frequency Strain Abort	+/- 5 VDC	N/A	15.1.5.2	N/A	N/A	TTL Input from Strain Gage Signal Processor. Alarm setpoint set at +/- 34 microstrain.
WHF14A1L	VDIT Riser 14A # 1 Strain Gage High Frequency Strain Alarm	+/- 5 VDC	N/A	15.1.4.3	N/A	N/A	TTL Input from Strain Gage Signal Processor. Alarm setpoint set at +/- 18 microstrain.
WHF14A1B	VDIT Riser 14A # 1 Strain Gage High Frequency Strain Abort	+/- 5 VDC	N/A	15.1.4.4	N/A	N/A	TTL Input from Strain Gage Signal Processor. Alarm setpoint set at +/- 25 microstrain.
WHF14A2L	VDIT Riser 14A # 2 Strain Gage High Frequency Strain Alarm	+/- 5 VDC	N/A	15.1.5.3	N/A	N/A	TTL Input from Strain Gage Signal Processor. Alarm setpoint set at +/- 18 microstrain.
WHF14A2B	VDIT Riser 14A # 2 Strain Gage High Frequency Strain Abort	+/- 5 VDC	N/A	15.1.5.4	N/A	N/A	TTL Input from Strain Gage Signal Processor. Alarm setpoint set at +/- 25 microstrain.

Signature: *T. Long*

Date: 218193

Form #: HMTF-CRCS-2 (1-14-93)

HYDROGEN MITIGATION TEST PROJECT

Change Request (Continuation Sheet)

Item No. 113 (v4) 111

CR No.:

105

Sheet

5 of 5

Page 4 of 4

Change Request Attachment 1

DACS Tag No.	Description	Signal	Process Variable Range (microstrain)	I/O Location	Alarm Points (microstrain)	Analog Scaling Factor (microstrain/volt)	Comments
WHF14A3L	VDTT Riser 14A # 3 Strain Gage High Frequency Strain Alarm	+/- 5 VDC	N/A	15.1.4.5	N/A	N/A	TTL Input from Strain Gage Signal Processor. Alarm setpoint set at +/- 18 microstrain.
WHF14A3B	VDTT Riser 14A # 3 Strain Gage High Frequency Strain Abort	+/- 5 VDC	N/A	15.1.5.5	N/A	N/A	TTL Input from Strain Gage Signal Processor. Alarm setpoint set at +/- 25 microstrain.
WHF1B1L	VDTT Riser 1B # 1 Strain Gage High Frequency Strain Alarm	+/- 5 VDC	N/A	15.1.4.6	N/A	N/A	TTL Input from Strain Gage Signal Processor. Alarm setpoint set at +/- 20 microstrain. 27 2 10-6-93
WHF1B1B	VDTT Riser 1B # 1 Strain Gage High Frequency Strain Abort	+/- 5 VDC	N/A	15.1.4.7	N/A	N/A	TTL Input from Strain Gage Signal Processor. Alarm setpoint set at +/- 27 microstrain. 47 2 10-6-93
WHF1B2L	VDTT Riser 1B # 1 Strain Gage High Frequency Strain Alarm	+/- 5 VDC	N/A	15.1.5.6	N/A	N/A	TTL Input from Strain Gage Signal Processor. Alarm setpoint set at +/- 20 microstrain. 27 2 10-6-93
WHF1B2B	VDTT Riser 1B # 1 Strain Gage High Frequency Strain Abort	+/- 5 VDC	N/A	15.1.5.7	N/A	N/A	TTL Input from Strain Gage Signal Processor. Alarm setpoint set at +/- 27 microstrain. 47 2 10-6-93
WHF1B3L	VDTT Riser 1B # 1 Strain Gage High Frequency Strain Alarm	+/- 5 VDC	N/A	15.1.4.8	N/A	N/A	TTL Input from Strain Gage Signal Processor. Alarm setpoint set at +/- 20 microstrain. 27 2 10-6-93
WHF1B3B	VDTT Riser 1B # 1 Strain Gage High Frequency Strain Abort	+/- 5 VDC	N/A	15.1.5.8	N/A	N/A	TTL Input from Strain Gage Signal Processor. Alarm setpoint set at +/- 27 microstrain. 47 2 10-6-93

Signature:

Form #: HMTF-CRCS-2 (1-14-93)

Date: 2/9/93

HYDROGEN MITIGATION TEST PROJECT

Change Request

ORIGINAL

CR No.: 106

Sheet 1 of 1

1.	Hardware/Software/Document Name: ATP (WHC-SD-WM-ATP-046)		
	Version/Revision: 0		
2.	CR Type: ☐ Development ☒ Correct Problem ☐ Enhancement ☐ Other		
3.	Short Task Description/Justification: ☐ See Attached Add new test sections. Correct procedural errors.		
4.	Detail Description: ☐ See Attached Add new test sections and correct procedural errors per ECN 169277.		
5.	Originator Priority: ☒ 1 = Critical 2 = Very Important 3 = Important 4 = Interesting		
6.	Originator: A. C. Zuehlke	Date: 2 / 9 / 93	Phone No.: (509) 376-5662
7.	Disposition: Priority (See 5.) ☒ 1 Classification: ☐ 1 ☒ 2 ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Defer		Implement: ☒ Yes ☐ Wait for approval ☐ At next mandatory change [X] DACS test required
8.	TRG ¹ /CCB ² Approval: <u>T. Carey</u> Date: <u>2/9/93</u> <u>C. P. Molteni</u> Date: <u>2/9/93</u> <u>G. F. Vargo</u> Date: <u>2/9/93</u>		
9.	Assigned to: _____ Phone No. _____		
10.	Copy to originator: ☐ After CCB/TRG disposition (Date: ____/____/____) ☐ After change implementation (Date: ____/____/____)		
11.	Change Comments or Hardware/Software/Documents Affected by Change: ☐ See Attached _____ _____ _____ _____		
12.	How was change implemented? ☐ ECN _____ ☐ Ltr No. _____ ☐ This CR		
13.	Completed by: <u>T. Carey for A.C. Z.</u> Date: <u>2/9/93</u>		
14.	WHC Verify Implementation: <u>T. Carey</u> Date: <u>2/9/93</u> Phone No. <u>3-1229</u>		

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 107

Sheet 1 of

1.	Hardware/Software/Document Name: <u>DACS Software</u>		
	Version/Revision: _____		
2.	CR Type: ☐ Development ☐ Correct Problem ☐ Enhancement ☐ Other		
3.	Short Task Description/Justification: ☐ See Attached <u>HIGH VENT FLOW ABORT COIL DOESN'T TRIP WHEN SIGNAL EXCEEDS ABORT LIMIT</u>		
4.	Detail Description: ☐ See Attached <u>DIAGNOSE AND MAKE NECESSARY CHANGES</u>		
5.	Originator Priority: ☐ 1 = Critical 2 = Very Important 3 = Important 4 = Interesting		
6.	Originator: <u>J. M. Martin</u>	Date: <u>2/5/93</u>	Phone No.: <u>546-5015</u>
7.	Disposition: Priority (See 5.) ☐ 1 Classification: ☐ 1 ☒ 2 ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Defer	Implement: ☒ Yes ☐ Wait for approval ☐ At next mandatory change	☒ DACS test required
8.	TRG ¹ /CCB ² Approval: <u>J. Lyle Hunt</u> Date: <u>2/9/93</u> <u>C. D. M. Martin</u> Date: <u>2/9/93</u> <u>G. F. Vargo</u> Date: <u>2/9/93</u>		
9.	Assigned to: _____ Phone No. _____		
10.	Copy to originator: ☐ After CCB/TRG disposition (Date: ____/____/____) ☐ After change implementation (Date: ____/____/____)		
11.	Change Comments or Hardware/Software/Documents Affected by Change: ☐ See Attached <u>CHANGED PLC ABORT LOGIC. (COIL WAS NOT 'OR'ed in to trip ABORT COIL)</u>		
12.	How was change implemented? ☐ ECN ☐ Ltr No. _____ ☐ This CR		
13.	Completed by: <u>J. M. Martin</u> Date: <u>2/5/93</u>		
14.	WHC Verify Implementation: <u>M. Buehler</u> Date: <u>2/5/93</u> Phone No. <u>6-5662</u>		

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 108

Sheet 1 of 1

1.	Hardware/Software/Document Name: DACS screen MPR12A		
	Version/Revision:		
2.	CR Type: ☐ Development ☒ Correct Problem ☐ Enhancement ☐ Other		
3.	Short Task Description/Justification: ☐ See Attached Add DACS tags XIR12AN1 and XIR12AN2		
4.	Detail Description: ☐ See Attached Add the following DACS tags to the Mixer Pump Screen MPR12A XIR12AN1 Mixer Pump Support Column Vibration XIR12AN2 Mixer Pump Casing Vibration Alarm setpoint is 4 G's No abort setpoint		
5.	Originator Priority: [2] 1=Critical 2=Very Important 3=Important 4=Interesting		
6.	Originator: G. J. Gauck	Date: 2 / 9 / 93	Phone No.: (509) 373-1779
7.	Disposition: Priority (See 5.) [2] Classification: [] [4] ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Defer		Implement: ☒ Yes ☐ Wait for approval ☐ At next mandatory change [X] DACs test required
8.	TRG ¹ /CCS ² Approval: <i>[Signature]</i> <i>C. P. Moten</i> <i>G. F. Vane</i>		Date: 2/9/93 Date: 2/9/93 Date: 2/9/93
9.	Assigned to: _____ Phone No. _____		
10.	Copy to originator: ☐ After CCB/TRG disposition (Date: ____/____/____) ☐ After change implementation (Date: ____/____/____)		
11.	Change Comments or Hardware/Software/Documents Affected by Change: ☐ See Attached		
12.	How was change implemented? ☐ ECN _____ ☐ Ltr No. _____ ☐ This CR		
13.	Completed by: <i>[Signature]</i>		Date: 2/10/93
	WHC Verify Implementation: <i>[Signature]</i>		Date: 2/14/93 Phone No. 3-1847

HYDROGEN MITIGATION TEST PROJECT

Change Request

BEST AVAILABLE COPY

CR No.:

109

Sheet 1 of 1

Closed 4-1-93 as implemented

1.	Hardware/Software/Document Name: DACS screen ITR17B		
	Version/Revision:		
2.	CR Type: ☐ Development ☒ Correct Problem ☐ Enhancement ☐ Other		
3.	Short Task Description/Justification: ☐ See Attached Inhibit alarms for DACS tags NIR17B02 and NIR17B03		
4.	Detail Description: ☐ See Attached Delete the alarms for the following DACS tags: NIR17B02 Low MOS MIT NIR17B03 High MOS MIT These tags have no alarm and abort features		
5.	Originator Priority: [2] 1=Critical 2=Very Important 3=Important 4=Interesting		
6.	Originator: G. J. Gauck	Date: 2 / 9 / 93	Phone No.: (509) 373-1779
7.	Disposition: ☐ Yes ☐ Wait for approval ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Defer	Priority (See 5.): ☐ Classification: ☐ ☐ ☐ At next mandatory change	[X] DACs test required
8.	TRG ¹ /CCB ² Approval: <i>G. J. Gauck</i> <i>S. Beale</i> <i>1/2/93</i>	Date: 2/23/93 Date: 2/23/93 Date: 2/24/93	
9.	Assigned to:	Phone No.:	
10.	Copy to originator: ☐ After CCB/TRG disposition (Date: / /)	☐ After change implementation (Date: / /)	
11.	Change Comments or Hardware/Software/Documents Affected by Change: ☐ See Attached All MOS DACS tags should be checked to ensure that there are no alarm/abort setpoints associated with them. No Alarms were found enabled. (As with NITKSYII and NITKSYI2, the priority was 0 so the alarms were not active.)		
12.	How was change implemented? ☐ ECN ☐ Ltr No. ☐ This CR		
13.	Completed by: <i>J. Martin</i>	Date: 3/30/93	
14.	WHC Verify Implementation: <i>J. Carey</i>	Date: 4/1/93	Phone No. 3-1779

Change Request

ORIGINAL

CR No.: 110

Sheet 1 of 1

1.	Hardware/Software/Document Name: <u>Running Motor Strategy on Station 7</u> Version/Revision: _____		
2.	CR Type: ☐ Development ☐ Correct Problem ☐ Enhancement ☐ Other		
3.	Short Task Description/Justification: ☐ See Attached <u>PUMP MOTOR CONTROL STRATEGY DID NOT WORK WHEN PUMPS ON STATION 7.</u>		
4.	Detail Description: ☐ See Attached <u>Fix it.</u>		
5.	Originator Priority: ☒ 1 = Critical 2 = Very Important 3 = Important 4 = Interesting		
6.	Originator: <u>T. LANEY / J. MARTIN</u> Date: <u>2, 9, 93</u> Phone No.: <u>3-1779</u>		
7.	Disposition: Priority (See 5.) ☒ Classification: ☐ ☒ ☐ ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Defer	Implement: ☒ Yes ☐ Wait for approval ☐ At next mandatory change	☒ DACS test required
8.	TRG ¹ /CCS ² Approval: <u>J. Hylebert</u> Date: <u>2, 9, 93</u> <u>C. D. Molten</u> Date: <u>2, 9, 93</u> <u>A. R. Vargo</u> Date: <u>2, 9, 93</u>		
9.	Assigned to: _____ Phone No. _____		
10.	Copy to originator: ☐ After CCS/TRG disposition (Date: ____/____/____) ☐ After change implementation (Date: ____/____/____)		
11.	Change Comments or Hardware/Software/Documents Affected by Change: ☐ See Attached <u>WHEN RUNNING STATION 5 TEST STRATEGY on STATION 7, The station 8</u> <u>motor strategy must be exited and the motor 7 must be</u> <u>run. (RUNTIME MOTOR) When running station 8 motor strategy on</u> <u>station 7, station 5 will recognize it fine without exiting.</u>		
12.	How was change implemented? ☐ EQN _____ ☐ Ltr No. _____ ☐ This CR		
13.	Completed by: <u>J. Hylebert</u> Date: <u>2, 13, 93</u>		
..	WHC Verify Implementation: <u>D. C. Hensley</u> <u>Provided station 7</u> <u>motor strategy remains working</u> Date: <u>2, 14, 93</u> Phone No.: <u>3-1847</u>		

HYDROGEN MITIGATION TEST PROJECT

Change Request

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ORIGINAL

CR No.: 111

Sheet 1 of 1

1.	Hardware/Software/Document Name: <u>IACS SOFTWARE</u>		
	Version/Revision: _____		
2.	CR Type: ☐ Development ☐ Correct Problem ☒ Enhancement ☐ Other		
3.	Short Task Description/Justification: ☐ See Attached <u>SAFETY ASSESSMENT:</u> <u>IMPLEMENT STATUS BLOCK IN MODICON PLC.</u> <u>MAKE CONNECTION TO GENESIS AND DEVELOP SCREENS AND</u> <u>ALARMS.</u> <u>USED TO CHECK HEALTH OF MODICON I/O MODULES.</u>		
4.	Detail Description: ☐ See Attached <u>IMPLEMENT STAT BLOCK, OBTAIN HEA MODICON I/O MODULE</u> <u>STATUS, GENERATE ALARM AND SCREENS</u>		
5.	Originator Priority: ☐ 1 = Critical 2 = Very Important 3 = Important 4 = Interesting		
6.	Originator: <u>HIROSHI HODA</u> Date: <u>2/9/93</u> Phone No.: <u>(505) 665-1884</u>		
7.	Disposition:	Priority (See 5.) ☐ 1 ☐ 2 ☐ 3 ☐ 4	Implement:
	Classification: ☐ 1 ☒ 2 ☐ 3 ☐ 4		☒ Yes ☐ Wait for approval
	☒ Approve ☐ Approve/Modify		☐ At next mandatory change
	☐ Reject ☐ Defer		
8.	TRG ¹ /CCB ² Approval: <u>1. [Signature]</u> Date: <u>2/9/93</u> <u>C.P. [Signature]</u> Date: <u>2/9/93</u> <u>T. [Signature] for G.F. VARGO</u> Date: <u>2/8/93</u>		
9.	Assigned to: _____ Phone No. _____		
10.	Copy to originator: ☐ After CCB/TRG disposition (Date: ____/____/____) ☐ After change implementation (Date: ____/____/____)		
11.	Change Comments or Hardware/Software/Documents Affected by Change: ☐ See Attached <u>AFFECTS TEST PROCEDURES. SCREEN IOSTATUS shows status of</u> <u>I/O modules. Indication says "ERR" when module communication with processor</u> <u>alarms are generated on a per rack basis when any of the modules</u> <u>of that rack are bad. (Processor interface has been verified)</u>		
12.	How was change implemented? ☐ ECN _____ ☐ Ltr No. _____ ☐ This CR		
13.	Completed by: <u>[Signature]</u> Date: <u>2/11/93</u>		
14.	WHC Verify Implementation: <u>A.F. Vargo</u> Date: <u>2/11/93</u> Phone No. <u>6-5387</u>		

HYDROGEN MITIGATION TEST PROJECT

Change Request

ORIGINAL

CR No.: 112

Sheet 1 of 1

1.	Hardware/Software/Document Name: <u>DACS SOFTWARE/MODICON HARDWARE</u> Version/Revision: _____		
2.	CR Type: ☐ Development ☐ Correct Problem ☒ Enhancement ☐ Other		
3.	Short Task Description/Justification: ☐ See Attached <u>SAFETY ASSESSMENT: AUDIBLE ALARM TRIGGERED FROM THE PLC/MODICON I/O IN THE EVENT OF AN ABORT. INCLUDES RESET HARDWARE. COMPUTER LOCKOUT OF STATION 5 ELIMINATES AUDIBLE ALARM AND ALARM SCREENS IN PRESENT SYSTEM.</u>		
4.	Detail Description: ☐ See Attached <u>HARDWARE AND SOFTWARE MODIFIED TO INCLUDE AUDIBLE ALARM AND RESET.</u>		
5.	Originator Priority: ☒ 1 = Critical 2 = Very Important 3 = Important 4 = Interesting		
6.	Originator: <u>HIROSHI HONDA</u> Date: <u>2/9/93</u> Phone No. <u>(505) 665-1884</u>		
7.	Disposition: Priority (See 5.) ☒ 1 Classification: ☐ 1 ☒ 4 ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Defer	Implement: ☒ Yes ☐ Wait for approval ☐ At next mandatory change	TL 2-17-93 ☒ DACS test required
8.	TRG ¹ /CCB ² Approval: <u>1. Pyle</u> Date: <u>2/9/93</u> <u>C. P. M. Altieri</u> Date: <u>2/9/93</u> <u>H. F. Vargo</u> Date: <u>2/9/93</u>		
9.	Assigned to: _____ Phone No. _____		
10.	Copy to originator: ☐ After CCB/TRG disposition (Date: ____/____/____) ☐ After change implementation (Date: ____/____/____)		
11.	Change Comments or Hardware/Software/Documents Affected by Change: ☐ See Attached <u>AFFECTS TEST PROCEDURES</u> <u>LOCKOUT FEATURE NOT TESTED, SINCE NO LOCKOUT HAD OCCURRED. Any Good</u>		
12.	How was change implemented? ☐ ECN _____ ☐ Ltr No. _____ ☐ This CR		
13.	Completed by: <u>[Signature]</u> Date: <u>2/17/93</u>		
14.	WHC Verify Implementation: <u>[Signature]</u> Date: <u>2/17/93</u> Phone No. _____		

HYDROGEN MITIGATION TEST PROJECT

Change Request

ORIGINAL

CR No.: 118

Sheet 1 of

1.	Hardware/Software/Document Name: DACS Software		
	Version/Revision:		
2.	CR Type: ☐ Development ☒ Correct Problem ☐ Enhancement ☐ Other		
3.	Short Task Description/Justification: ☐ See Attached PDPBASE Change units for PDBASE.		
4.	Detail Description: ☐ See Attached PDPBASE Change the units for PDBASE: From: PSID To: PSIG		
5.	Originator Priority: [2] 1=Critical 2=Very Important 3=Important 4=Interesting		
6.	Originator: T. Laney/Jeff Martin	Date: 2 / 9 / 93	Phone No.: (509) 373-1779
7.	Disposition: Priority (See 5.) [2] Classification: [] [4] ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Defer		Implement: ☒ Yes ☐ Wait for approval ☐ At next mandatory change [] DACS test required
8.	TRG ¹ /CCB ² Approval: <u>1. Kyle Hunt</u> Date: <u>2/9/93</u> <u>G. J. Martin</u> Date: <u>2/9/93</u> <u>G. F. Vance</u> Date: <u>2/9/93</u>		
9.	Assigned to: _____ Phone No. _____		
10.	Copy to originator: ☐ After CCB/TRG disposition (Date: ____/____/____) ☐ After change implementation (Date: ____/____/____)		
11.	Change Comments or Hardware/Software/Documents Affected by Change: ☐ See Attached		
12.	How was change implemented? ☐ ECN _____ ☐ Ltr No. _____ ☐ This CR		
13.	Completed by: <u>Arthur V. Eldon</u> Date: <u>2/10/93</u>		
14.	WHC Verify Implementation: <u>P.C. Larson per Tug PDPBASE</u> Date: <u>2/14/93</u> Phone No. <u>3-1847</u>		

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 114Sheet 1 of 1Rejected 2-16-93

1.	Hardware/Software/Document Name: DACS Software		
	Version/Revision:		
2.	CR Type: ☐ Development ☒ Correct Problem ☐ Enhancement ☐ Other		
3.	Short Task Description/Justification: ☐ See Attached		
	Add additional data to the MISC.PRN file for archive.		
4.	Detail Description: ☐ See Attached		
	Add the following tags to the MISC.PRN file:		
	TT10001 Vent Header Temperature		
	NITHDR01 0-10% H2 Vent Header Chessel		
	NIR17B01 0-10% H2 Riser 17B GMS1		
	These tags are required to calculate the volume of H2 discharged, corrected to standard temperature and pressure.		
5.	Originator Priority: [2] 1=Critical 2=Very Important 3=Important 4=Interesting		
6.	Originator: W. B. Gregory	Date: 2 / 12 / 93	Phone No.: (509) 375-6568
7.	Disposition: Priority (See 5.) ☐ Classification: ☐ I ☐ II ☐ Approve ☐ Approve/Modify ☒ Reject ☐ Defer 2-16-93	Implement: ☐ Yes ☐ Wait for approval ☐ At next mandatory change	[] DACS test required
8.	TRG ¹ /CCB ² Approval: _____ Date: ____/____/____ _____ Date: ____/____/____ _____ Date: ____/____/____		
9.	Assigned to: _____ Phone No. _____		
10.	Copy to originator: ☐ After CCB/TRG disposition (Date: ____/____/____) ☐ After change implementation (Date: ____/____/____)		
11.	Change Comments or Hardware/Software/Documents Affected by Change: ☐ See Attached		
12.	How was change implemented? ☐ ECN _____ ☐ Ltr No. _____ ☐ This CR		
13.	Completed by: _____ Date: ____/____/____		
14.	WHC Verify Implementation: _____ Date: ____/____/____ Phone No. _____		

HYDROGEN MITIGATION TEST PROJECT

Change Request

ORIGINAL

CR No.: 115

Sheet 1 of 1

1.	Hardware/Software/Document Name: <u>DACS Logic / IOChannel List / ATP.</u> Version/Revision: _____		
2.	CR Type: ☒ Development ☐ Correct Problem ☐ Enhancement ☐ Other		
3.	Short Task Description/Justification: ☐ See Attached <u>Replace existing Modicon Location for DACS Tag # ZIMPE142 for Mixer Pump Column Gas Pressure to with "37317" and change I/O Location from "2.1.4.4" to "2.1.6.1"</u>		
4.	Detail Description: ☐ See Attached <u>Will affect I/O List and ATP As part of WHC verification ensure Cog engineers have been notified.</u>		
5.	Originator Priority: ☒ 1 = Critical 2 = Very Important 3 = Important 4 = Interesting		
6.	Originator: <u>Gregory Louch</u> Date: <u>2/16/93</u> Phone No.: <u>373-1779.</u>		
7.	Disposition: Priority (See 5.) ☒ 2 Classification: ☐ I ☒ II ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Defer		Implement: ☒ Yes ☐ Wait for approval ☐ At next mandatory change ☐ DACS test required
8.	TRG ¹ /CCS ² Approval: <u>Sy, Bear</u> Date: <u>2/16/93</u> <u>A.F. Vargo</u> Date: <u>2/16/93</u>		
9.	Assigned to: _____ Phone No. _____		
10.	Copy to originator: ☐ After CCS/TRG disposition (Date: ____/____/____) ☐ After change implementation (Date: ____/____/____)		
11.	Change Comments or Hardware/Software/Documents Affected by Change: ☐ See Attached <u>I/O List Affected</u>		
12.	How was change implemented? ☐ ECN _____ ☐ Ltr No. _____ ☐ This CR		
13.	Completed by: <u>A.F. Vargo</u> Date: <u>2/17/93</u>		
14.	WHC Verify Implementation: <u>A.F. Vargo</u> Date: <u>2/17/93</u> Phone No. <u>6-5387</u>		

1.	Hardware/Software/Document Name: <u>Modify System's User List</u>	Version/Revision: _____
2.	CR Type: ☐ Development ☒ Correct Problem ☒ Enhancement ☐ Other	
3.	Short Task Description/Justification: ☐ See Attached User Centered List (Covarable) will fill this need, but needs to be updated. Modify system based list to support the pump bot, using input from both technical investigation and test engineers. Prepare a button screen to alert trend operators of interest.	
4.	Detail Description: ☐ See Attached Modify system based list to support the pump bot, using input from both technical investigation and test engineers. Prepare a button screen to alert trend operators of interest.	
5.	Originator Priority: [2] 1 = Critical 2 = Very Important 3 = Important 4 = Interesting	
6.	Originator: <u>ATG/MLT</u>	Date: <u>2/16/93</u> Phone No.: <u>373-3296</u>
7.	Disposition: ☒ Priority (See 5.) [2] Classification: ☒ [1] ☐ Approve ☐ Approve/Modify ☐ At next mandatory change ☐ Yes ☐ Wait for approval ☐ implement	TRG/CCB ² Approval: <u>See B-2</u> <u>A. F. Vargo</u> Date: <u>2/16/93</u> Date: <u>2/16/93</u> Date: <u>2/16/93</u> Assigned to: _____ Phone No. _____ Copy to originator: ☐ After CCB/TRG disposition (Date: _____) ☐ After change implementation (Date: _____)
8.	Change Comments or Hardware/Software/Documents Affected by Change: ☒ See Attached	
9.	How was change implemented? ☐ ECN ☐ Lit No. ☐ This CR	
10.	Completed by: <u>2/18/93</u>	Date: <u>2/18/93</u>
11.	WHC Verify Implementation: <u>James A. Dehault</u>	Date: <u>2/16/93</u> Phone No.: <u>373-3296</u>

HYDROGEN MITIGATION TEST PROJECT

Change Request

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ORIGINAL

CR No.:

117

Sheet 1 of 1

1.	Hardware/Software/Document Name: <u>DACS SOFTWARE</u> Version/Revision: _____
2.	CR Type: ☒ Development ☒ Correct Problem ☐ Enhancement ☐ Other
3.	Short Task Description/Justification: ☐ See Attached <u>ALARM ALERT FOR THE COMPLETION OF A PHASE A TEST</u>
4.	Detail Description: ☐ See Attached <u>ADD AN AUDIBLE ALARM THAT OCCURS 30 SECONDS PRIOR TO THE END OF EACH PHASE A TEST</u>
5.	Originator Priority: <u>[2]</u> 1 = Critical 2 = Very Important 3 = Important 4 = Interesting
6.	Originator: <u>T. LANGE</u> Date: <u>2/16/93</u> Phone No.: <u>3-1779</u>
7.	Disposition: Priority (See 5.) <u>[2]</u> Classification: ☒ LH ☐ HL ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Defer ☐ Wait for approval ☐ At next mandatory change ☐ DACS test required
8.	TRG/ICB ² Approval: <u>SLC</u> Date: <u>2/16/93</u> <u>W. H. Rags</u> Date: <u>2/17/93</u>
9.	Assigned to: _____ Phone No. _____ Copy to originator: ☐ After CCS/TRG disposition (Date: _____) ☐ After change implementation (Date: _____)
11.	Change Comments or Hardware/Software/Documents Affected by Change: ☐ See Attached <u>T1 = 18-42 sec. Prior to end</u> <u>T2 = 92.5 sec.</u> <u>T3 = 153.0 sec.</u> <u>T4 = 334.5 sec.</u> <u>T5 = 634.3 sec.</u> ☐ This CR
12.	How was change implemented? ☐ ECN ☐ Lit No. _____
13.	Completed by: _____ Date: <u>2/17/93</u>
14.	WHC Verify Implementation: _____ Date: <u>2/19/93</u> Phone No. _____

Form #: HMTF-CR-1 (1-14-93)

1 = CLASS I 2 = CLASS II

HYDROGEN MITIGATION TEST PROJECT

Change Request

ORIGINAL

CR No.: 112

Sheet 1 of

1.	Hardware/Software/Document Name: <u>DACS Software</u> Version/Revision: <u>Minimum</u>		
2.	CR Type: ☒ Development ☐ Correct Problem ☐ Enhancement ☐ Other		
3.	Short Task Description/Justification: ☐ See Attached <u>Remove all temperature and specific gravity alarms and aborts from associated with VDT's.</u>		
4.	Detail Description: ☐ See Attached <u>VDT temperatures are not reliable and specific gravities have been removed from Safety Assessment Rev. 1</u>		
5.	Originator Priority: ☐ 1 = Critical 2 = Very Important 3 = Important 4 = Interesting		
6.	Originator: <u>Gene Launch</u> Date: <u>2/16/93</u> Phone No.: <u>3-1779</u>		
7.	Disposition: ☒ Priority (See 5.): ☐ Classification: ☐ I ☐ II ☐ Approve ☐ Approve/Modify ☐ Reject ☐ Defer	Implement: ☐ Yes ☐ Wait for approval ☐ At next mandatory change	☐ DACS test required
8.	TRG ¹ /CCB ² Approval: <u>GH Varco</u> Date: <u>2/16/93</u> <u>J. Monty</u> Date: <u>2/16/93</u> <u>John</u> Date: <u>2/17/93</u>		
9.	Assigned to: _____ Phone No. _____		
10.	Copy to originator: ☐ After CCB/TRG disposition (Date: <u>1/1/</u>) ☐ After change implementation (Date: <u>1/1/</u>)		
11.	Change Comments or Hardware/Software/Documents Affected by Change: ☐ See Attached <u>Affects Minimum Instrument List in Test Procedures and ARP and I/O Channel List</u> <u>SPECIFIC GRAVITY ALARMS ARE VIA SP* TAGS NOT CALCULATED</u> <u>SPG VIA DCR*. ALL SP* ARE REMOVED. = NO ALARM</u>		
12.	How was change implemented? ☐ ECN _____ ☐ Ltr No. _____ ☐ This CR		
13.	Completed by: <u>Don Cline</u> Date: <u>2/17/93</u>		
14.	WHC Verify Incorporation: <u>Terance Lang</u> Date: <u>2/18/93</u> Phone No. <u>3-1779</u>		

HYDROGEN MITIGATION TEST PROJECT

ORIGINAL

Change Request

CR No.: 119

Sheet 1 of

1.	Hardware/Software/Document Name: <u>DACS LOGIC / I/O CHANNEL / ATP</u>		
	Version/Revision: _____		
2.	CR Type: ☐ Development ☐ Correct Problem ☒ Enhancement ☐ Other		
3.	Short Task Description/Justification: ☐ See Attached <u>CHANGE VOLT 1B & 14A LOW FREQUENCY STRAIN ALARM FROM $\pm 409 \mu\text{e}$ TO $\pm 317 \mu\text{e}$. ENSURE ALL APPROPRIATE DOCUMENTATION REFLECTS THIS CHANGE, I.E., I/O LIST, PROCEDURES, ATP #46, ETC.</u>		
4.	Detail Description: ☐ See Attached <u>THIS CR IS AN EMERGENCY AS PER LAW SAFETY.</u>		
5.	Originator Priority: ☒ 1 = Critical 2 = Very Important 3 = Important 4 = Interesting		
6.	Originator: <u>G. F. Varco</u>	Date: <u>2/18/93</u>	Phone No.: <u>6-5387</u>
7.	Disposition: <u>6</u> Priority (See 5) ☐ Classification: ☐ I ☐ II ☐ Approve ☐ Approve/Modify ☐ Reject ☐ Deny	Implement: ☐ Yes ☐ Wait for approval ☐ At next mandatory change	☐ DACS test required
8.	TRG ¹ /CCB ² Approvals: <u>G. F. Varco</u> <u>P. C. Karsun</u> for <u>C. P. Molteni</u>		Date: <u>2/18/93</u> Date: <u>2/18/93</u> Date: <u>2/18/93</u>
9.	Assigned to: _____ Phone No. _____		
10.	Copy to originator: ☐ After CCB/TRG disposition (Date: _____) ☐ After change implementation (Date: _____)		
11.	Change Comments or Hardware/Software/Documents Affected by Change: ☐ See Attached		
12.	How was change implemented? ☐ 1 ECU _____ ☐ 2 Lb No. _____ ☐ This CR		
13.	Completed by: <u>[Signature]</u>		Date: <u>2/18/93</u>
14.	WHC Verify Incorporation: <u>[Signature]</u>		Date: <u>2/18/93</u> Phone No. _____

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HYDROGEN MITIGATION TEST PROJECT

Change Request

ORIGINAL CR No. 120

Sheet 1 of

1.	Hardware/Software/Document Name: <u>Archiving Charges</u>		
	Version/Revision: _____		
2.	CR Type: ☐ Development ☒ Correct Problem ☒ Enhancement ☒ Other <u>Emergency C.R.</u>		
3.	Short Task Description/Justification: ☐ See Attached <u>Histor. Files to be archived automatically to station 9 & then to 2 Station 9. Bernoulli and deleted from station 5 upon successful transfer.</u>		
4.	Detail Description: ☐ See Attached <u>Alarm/Event Summary files to be transferred also.</u>		
5.	Originator Priority: ☒ 1=Critical 2=Very Important 3=Important 4=Interesting		
6.	Originator: <u>J. Martin</u>	Date: <u>2, 18, 93</u>	Phone No.: <u>545-5015</u>
7.	Disposition: _____ Priority (See 5.) ☐ Classification: ☐ ☐ ☐ Approve ☐ Approve/Modify ☐ Reject ☐ Defect	Implement: ☐ Yes ☐ Wait for approval ☐ At next mandatory change	☐ DACS test required
8.	TRG ¹ /CCB ² Approval: <u>George F. Vucopu</u>		Date: <u>2, 18, 93</u> Date: <u> </u> Date: <u> </u>
9.	Assigned to: _____ Phone No. _____		
10.	Copy to originator: ☐ After CCB/TRG disposition (Date: <u> </u> / <u> </u> / <u> </u>) ☐ After change implementation (Date: <u> </u> / <u> </u> / <u> </u>)		
11.	Change Comments or Hardware/Software/Documents Affected by Change: ☐ See Attached _____ _____ _____ _____		
12.	How was change implemented? ☐ ECN _____ ☐ Ltr No. _____ ☐ This CR		
13.	Completed by: <u>J. Martin</u>		Date: <u>2, 18, 93</u>
14.	WHC Verify Incorporation: <u>M. F. Edart</u>	Date: <u>2, 18, 93</u>	Phone No. <u>3-4077</u>

Form #: HMTA-CR-1A

1 = CLASS I 2 = CLASS II

HYDROGEN MITIGATION TEST PROJECT

Change Request

BEST AVAILABLE COPY

ORIGINAL

CR No.: 121

Sheet 1 of

1.	Hardware/Software/Document Name: <u>DACS LOGIC / I/O CHANNEL / ATP</u>		
	Version/Revision: _____		
2.	CR Type: ☐ Development ☒ Correct Problem ☐ Enhancement ☐ Other		
3.	Short Task Description/Justification: ☐ See Attached <u>CHARGE 2HR HYDROGEN AVERAGE SENSOR FROM IST MOS DEVICE TO THE GAS CHROMATOGRAPH (GC). THE DACS WILL NOW UTILIZE THE TAG GC3-H2 TO CALCULATE THIS 2 HOUR AVERAGE.</u>		
4.	Detail Description: ☐ See Attached <u>THIS CR IS AN EMERGENCY BECAUSE OF THE UNRELIABLE OPERATION OF THE IST MOS DEVICES.</u>		
5.	Originator Priority: ☒ 1 = Critical 2 = Very Important 3 = Important 4 = Interesting		
6.	Originator: <u>H. F. Yagor.</u>	Date: <u>2/18/93</u>	Phone No.: <u>6-5387</u>
7.	Disposition: ☒ Priority (See 5.) ☐ Classification: ☐ ☐ ☐ ☐ ☐ Approve ☐ Approve/Modify ☐ Project ☐ Defers	Implement: ☐ Yes ☐ Wait for approval ☐ At next mandatory change	☐ DACS test required
8.	TRG ¹ /CCS ² Approval: <u>H. F. Yagor.</u> Date: <u>2/18/93</u> <u>D. C. Larson</u> Date: <u>2/18/93</u> <u>P. P. Maltewi</u> Date: <u>2/18/93</u>		
9.	Assigned to: _____ Phone No. _____		
10.	Copy to originator: ☐ After CCB/TRG disposition (Date: ____/____/____) ☐ After change implementation (Date: ____/____/____)		
11.	Change Comments or Hardware/Software/Documents Affected by Change: ☐ See Attached <u>GC3-2-H2 IS THE ONLY SENSOR THAT IS I/O (H)</u>		
12.	How was change implemented? ☐ ECR _____ ☐ Ltr No. _____ ☐ This CR		
13.	Completed by: <u>[Signature]</u> Date: <u>2/18/93</u>		
14.	WHC Verify Incorporation: <u>[Signature]</u> Date: <u>2/18/93</u> Phone No. <u>6-2808</u>		
15.	mm #: <u>HMP-CR-1A</u> 1 = CLASS I 2 = CLASS II <u>LANL</u> <u>ISSUE:</u> _____ Date: _____ Phone No. _____		

HYDROGEN MITIGATION TEST PROJECT

Change Request

original

CR No.: 122

Sheet 1 of

1.	Hardware/Software/Document Name: <u>DACS Logic I/O Channel ATP.</u> Version/Revision: _____		
2.	CR Type: ☐ Development ☐ Correct Problem ☒ Enhancement ☐ Other		
3.	Short Task Description/Justification: ☐ See Attached change VDTT high frequency strain alarms from ^{for R1B and R14A} for High from $\pm 35 \text{ mIn/In}$ and $\pm 32 \text{ mIn/In}$ respectively to $\pm 27 \text{ mIn/In}$ and $\pm 25 \text{ mIn/In}$.		
4.	Detail Description: ☐ See Attached per Table AG-3 SCO for Operation Strain Limits for 2 VDTTs in Safety Assessment Rev. 0.		
5.	Originator Priority: ☒ 1 = Critical 2 = Very Important 3 = Important 4 = Interesting		
6.	Originator: <u>Gregory J. Sanchez</u> Date: <u>2/23/93</u> Phone No.: <u>3-1779</u>		
7.	Disposition: Priority (See 5.) ☐ Classification: ☐ I ☐ II ☒ Approve ☐ Approve/Modify ☐ Reject ☒ Defer <u>2/23/93</u>	Implement: ☐ Yes ☐ Wait for approval ☐ At next mandatory change	☒ DACS test required
8.	TRG ¹ /CCB ² Approval: <u>A. F. Vargo</u> Date: <u>2/23/93</u> <u>S. Beary</u> Date: <u>2/23/93</u> <u>T. H. M.</u> Date: <u>2/23/93</u>		
9.	Assigned to: _____ Phone No. _____		
10.	Copy to originator: ☐ After CCB/TRG disposition (Date: ____/____/____) ☐ After change implementation (Date: ____/____/____)		
11.	Change Comments or Hardware/Software/Documents Affected by Change: ☐ See Attached <u>Jim Bussel author of strain alarm JTP has been</u> <u>informed of changes for VDTT high frequency strain</u> <u>alarm. Changes still need to be made to DACS I/O</u> <u>channel list.</u>		
12.	How was change implemented? ☐ ECN _____ ☐ Ltr No. _____ ☐ This CR		
13.	Completed by: <u>[Signature]</u> Date: <u>2/23/93</u>		
14.	WHC Verify Implementation: <u>[Signature]</u> Date: <u>2/23/93</u> Phone No. <u>373 1779</u>		

HYDROGEN MITIGATION TEST PROJECT

Change Request

Rejected 4-6-93

~~CANCEL~~CR No.: 123

Sheet 1 of

1.	Hardware/Software/Document Name: <u>Cleanup Screen NH2UHR7A.</u>		
	Version/Revision: _____		
2.	CR Type: ☐ Development ☐ Correct Problem ☒ Enhancement ☐ Other		
3.	Short Task Description/Justification: ☐ See Attached Remove from screen NH2UHR7A, the blocks for FTIR and GC#2. GC#2 will not be used and FTIR data is contained on screen titled GASSUM.		
4.	Detail Description: ☐ See Attached This will affect Vent Flow High. ARP-004 and Vent Header Flow, Low. ARP-00 if screen is to be eliminated. ARP-011		
5.	Originator Priority: <u>[3]</u> 1=Critical 2=Very Important 3=Important 4=Interesting		
6.	Originator: <u>[Signature]</u>	Date: <u>2/23/93</u>	Phone No.: <u>3-1779</u>
7.	Disposition: ☒ Priority (See 5.) ☐ Classification: ☐ I ☐ II ☐ Approve ☐ Approve/Modify ☒ 4-6-93 ☐ Reject ☐ Defer		Implement: ☐ Yes ☐ Wait for approval ☐ At next mandatory change ☐ DACS test required
8.	TRG ¹ /CCB ² Approval: _____ Date: ____/____/____ _____ Date: ____/____/____ _____ Date: ____/____/____		
9.	Assigned to: _____ Phone No. _____		
10.	Copy to originator: ☐ After CCB/TRG disposition (Date: ____/____/____) ☐ After change implementation (Date: ____/____/____)		
11.	Change Comments or Hardware/Software/Documents Affected by Change: ☐ See Attached _____ _____ _____ _____		
12.	How was change implemented? ☐ ECN _____ ☐ Ltr No. _____ ☐ This CR		
13.	Completed by: _____ Date: ____/____/____		
14.	WHC Verify Implementation: _____ Date: ____/____/____ Phone No. _____		

Change Request

Sheet 1 of 1

Form #: HMTP-CR-1 (1-14-93)

1 = CLASS I 2 = CLASS II

WHC-SD-WM-CMD-002 Rev. 0
Page 40

HYDROGEN MITIGATION TEST PROJECT

Change Request

original

125

CR No. 125

Sheet 1 of 12

1.	Hardware/Software/Document Name: <u>DACS Archive File Data Evaluation Problems.</u> Version/Revision: _____		
2.	CR Type: ☐ Development ☒ Correct Problem ☐ Enhancement ☐ Other		
3.	Short Task Description/Justification: ☐ See Attached <u>see attached pages.</u>		
4.	Detail Description: ☐ See Attached <u>Potential hardware problems associated with specific DACS channels circled on page 2 of 12. Goal is to eliminate extraneous spikes noted on pages 3 - 12 of 12.</u> <u>Superseded CR #53</u>		
5.	Originator Priority: ☐ 1 = Critical 2 = Very Important 3 = Important 4 = Interesting		
6.	Originator: <u>Barry Gregory Jr.</u> Date: <u>2/23/93</u> Phone No.: <u>5-6568.</u>		
7.	Disposition: Priority (See 5.) ☐ Classification: ☐ I ☐ II ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Defer	Implement: ☒ Yes ☐ Wait for approval ☐ At next mandatory change	☐ DACS test required
8.	TRG ¹ /CCB ² Approval: <u>G.F. Vargh</u> <u>P. Bear</u> <u>T. H. K.</u>		Date: <u>2/23/93</u> Date: <u>2/23/93</u> Date: <u>2/24/93</u>
9.	Assigned to: _____ Phone No. _____		
10.	Copy to originator: ☐ After CCB/TRG disposition (Date: ____/____/____) ☐ After change implementation (Date: ____/____/____)		
11.	Change Comments or Hardware/Software/Documents Affected by Change: ☐ See Attached _____ _____ _____ _____ _____		
12.	How was change implemented? ☐ ECN _____ ☐ Ltr No. _____ ☐ This CR		
13.	Completed by: _____ Date: ____/____/____		
14.	WHC Verify Implementation: _____ Date: ____/____/____ Phone No. _____		

2/12
CR125

DACS Archive File Data Evaluation - Feb. 18, 1993

The following evaluation is provided to assist the DACS Change Control Board to determine the status of archive/history data.

FILE	Channel	TAG ID	Status/Evaluation
MIT1	5	TIR17B05	Negative 1/2 deg spikes at 1 min intervals.
	6	TIR17B06	Positive 3/4 deg spikes at 1 min intervals.
NOTE: Spikes on both channels coincide.			
MIT2	10	TIR17B21	Positive 1/2 deg spikes at 1 min intervals.
	11	TIR17B22	Negative 1/2 deg spikes at 1 min intervals.
NOTE: Spikes on both channels coincide.			
FRY	5	TITMSY15	0.8 deg 12 min cycle. This may be entirely reasonable.
H2	1	NIR05A01	All zeros.
	4	NIR17B01	All zeros.
	7	NITJSY11	Pegged on 100.
MASS	All	All values are constant. This may be entirely reasonable.	
MISC	2&3	FTE50001 & FTE50002 have approximately 20 CFM difference but the data is highly correlatable and seems entirely reasonable. The differences are probably related to the differences in the instruments.	
VDTT	3	TIR1B06	3 deg negative spike.
	15	DCR14A03	Zero sample (drop out?).

For the most part the data seems to have improved considerably over the past couple of weeks. The items I feel still need to be addressed are:

Spikes in MIT1 and MIT2.

Spikes and drop outs in VDTT.

The other data contains many zero channels, but these are related to the pump installation.

Barry Gregory - 375-6568

3/12
CIR125

4/j2
CR125

5/12
CR125

6/12
CR125

7/12
CR125

8/12
CR125

107/12
C1125⁺

11/12
C/A125

12/12
CR25

HYDROGEN MITIGATION TEST PROJECT

Change Request

Original

CR No.: 126

Sheet 1 of 1

1.	Hardware/Software/Document Name: <u>Instrument Problem DACS tags.</u> Version/Revision: _____		
2.	CR Type: ☐ Development ☐ Correct Problem ☐ Enhancement ☐ Other		
3.	Short Task Description/Justification: ☐ See Attached <u>Provide "Instrument Problem" DACS tags associated with</u> <u>Minimum Instrument List to update Channel.</u>		
4.	Detail Description: ☐ See Attached		
5.	Originator Priority: <u>2</u> 1 = Critical 2 = Very Important 3 = Important 4 = Interesting		
6.	Originator: <u>[Signature]</u> Date: <u>3/8/93</u> Phone No.: <u>3-1779.</u>		
7.	Disposition:	Priority (See 5.) <u>[2]</u> Classification: ☐ ☒ ☐ ☐ ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Defer	Implement: ☒ Yes ☐ Wait for approval ☐ At next mandatory change
			☒ DACS test required
8.	TRG ¹ /CCS ² Approval: <u>[Signature]</u> Date: <u>3/9/93</u> <u>[Signature]</u> Date: <u>3/9/93</u> <u>per telecon w/ K. F. Vargo [Signature]</u> Date: <u>3/9/93</u>		
9.	Assigned to: _____ Phone No. _____		
10.	Copy to originator: ☐ After CCS/TRG disposition (Date: ____/____/____) ☐ After change implementation (Date: ____/____/____)		
11.	Change Comments or Hardware/Software/Documents Affected by Change: ☐ See Attached <u>Incorporated per ATP-046 part 2a</u>		
12.	How was change implemented? ☐ ECN _____ ☐ Ltr No. _____ ☒ This CR		
13.	Completed by: <u>[Signature]</u> Date: <u>3/9/93</u>		
14.	WHC Verify Implementation: <u>[Signature]</u> Date: <u>3/31/93</u> Phone No. <u>373-1779</u>		

CR 126

ARP-025 INSTRUMENT FAILURE

Whoever did this
get them to sign - completion
then get verification
for CR 126

DACS Tag:	NZTKSY06	Description:	INSTRUMENT PROBLEM-NITKSY06
	TZR12A01		INSTRUMENT PROBLEM-TIR12A01
	TZR12A02		INSTRUMENT PROBLEM-TIR12A02
	ZZMPE142		INSTRUMENT PROBLEM-ZIMPE142
	PZR12A01		INSTRUMENT PROBLEM-PIR12A01
	TZ10001		INSTRUMENT PROBLEM-TT10001
	PZR17B04		INSTRUMENT PROBLEM-PIR17B04
	PZR11B01		INSTRUMENT PROBLEM-PIR11B01
	TZR17B01 through TZR17B22		INSTRUMENT PROBLEM-TIR17B01 through TIR17B22
	GC3-INST		INSTRUMENT PROBLEM-GC3
	ARMFAIL		ARM INSTRUMENT FAILURE

32
total

Setpoint: N/A

1. AUTOMATIC ACTIONS:

1.1 DACS initiates alarm and/or stops pump on instrument failure.

2. IMMEDIATE OPERATOR ACTIONS:

2.1 Access DACS Alarm/Event Summary screen (function key "F4").

2.1.1 Acknowledge all alarms using DACS.

2.1.2 IF multiple alarms exist, request Test Director to prioritize responses.

ARP-025 INSTRUMENT FAILURE

2.2 Depress E STOP pushbutton.

2.3 Ensure the Mixer Pump has stopped by observing the indicated pump rpm is $\leq$ zero (DACS Tag: VR232050 or Independent Speed monitor VRINDRPM).

3. SUBSEQUENT ACTIONS:

3.1 Notify Test Director that an abort has occurred.

3.1.1 Test Director makes notifications of the abort in accordance with Appendix 1, Notification List.

3.2 Record into the Mitigation Test Log from Alarm/Event Summary printout the time, description and value of the event.

3.3 Notify appropriate maintenance group to trouble shoot.

3.4 Proceed to AOP-008, Test Abort Followup Actions.

4. REFERENCES:

4.1 WHC-IP-0842, Waste Tank Project Administration

4.2 LA-UR-92-3196 Revised, A Safety Assessment for Proposed Pump Mixing Operations to Mitigate Episodic Gas Releases in Tank 241-101-SY: Hanford Site, Richland, Washington

4.3 WHC-SD-WM-PROC-005, Abnormal Operating Procedures (AOP-008)

4.4 Operating and Service Instructions for Uninterruptible Power System, Model No. 120-10KNT, Custom Power Inc.

HYDROGEN MITIGATION TEST PROJECT

Change Request

ORIGINAL

CR No.: 127

Sheet 1 of 1

1.

HARDWARE/SOFTWARE/DOCUMENT NAME: DACS SOFTWARE

VERSION/REVISION: _____

O
R
I
G
I
N
A
T
O
RCR TYPE: ☐ DEVELOPMENT ☐ CORRECT PROBLEM ☒ ENHANCEMENT ☐ OTHERDESCRIPTION OF CHANGE: ☐ See Attached

DELETE H2 LOOK SCREEN.

JUSTIFICATION FOR CHANGE: ☐ See Attached

NOT REQUIRED.

HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:

☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☒ AOP ☒ ARP ☐ I/O Channel List ☒ DACS Software ☐ Other _____

ORIGINATOR PRIORITY: [2] 1=Mandatory 2=Important 3=Nice to have

ORIGINATOR: G. GAUCKDate: 3/8/93 Phone No.: 3-1779

2.

CLASSIFICATION:

DISPOSITION:

WHEN TO IMPLEMENT CHANGE:

IS AN ATP REQUIRED

☐ I ☒ II☒ Approve ☐ Approve/Modify☒ Upon completion of change☐ Yes☐ Reject ☐ Cancel☐ Prepare change and wait for approval☒ No☐ Defer☐ At next mandatory changeC
C
BTRG¹/CCB² APPROVAL:[Signature]
[Signature]
[Signature]Date: 3/23/93Date: 3/23/93Date: 3/30/93ASSIGNED TO: M. ERICART/R. MENDOZAPhone No. 3-2007

3.

COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None

v1.9.4

CHANGE
COMPLETED BY: [Signature]Date: 3/30/93 Phone No. 544-5015

4.

CHANGE
VERIFIED BY: [Signature]Date: 3/30/93 Phone No. 3-1779

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 128Sheet 1 of 1

1.	Hardware/Software/Document Name: <u>Vibration DACS tag description</u> Version/Revision: _____		
2.	CR Type: ☐ Development ☐ Correct Problem ☐ Enhancement ☐ Other		
3.	Short Task Description/Justification: ☐ See Attached <u>Change screen STRNALM Descriptions for XIRIZAN1 DACS tag to "MIXER PUMP CASING VIBRATION" and for DACS tag XIRIZAN2 to "MIXER PUMP SUPPORT COLUMN VIBRATION".</u>		
4.	Detail Description: ☐ See Attached		
5.	Originator Priority: <u>[2]</u> 1=Critical 2=Very Important 3=Important 4=Interesting		
6.	Originator: <u>L. Leach</u> Date: <u>3/8/93</u> Phone No.: <u>3-1779</u>		
7.	Disposition:	Priority (See 5.) <u>[2]</u> Classification: ☐ ☒ ☐ ☒ Approve ☐ Approver/Modify ☐ Reject ☐ Defer	Implement: ☒ Yes ☐ Wait for approval ☐ At next mandatory change
			☒ DACS test required
8.	TRG ¹ /CCB ² Approval: <u>[Signature]</u> Date: <u>3/9/93</u> <u>[Signature]</u> Date: <u>3/9/93</u> <u>[Signature]</u> Date: <u>3/9/93</u>		
9.	Assigned to: _____ Phone No. _____		
10.	Copy to originator: ☐ After CCB/TRG disposition (Date: ____/____/____) ☐ After change implementation (Date: ____/____/____)		
11.	Change Comments or Hardware/Software/Documents Affected by Change: ☐ See Attached <u>1/1/94</u>		
12.	How was change implemented? ☐ ECN _____ ☐ Ltr No. _____ ☐ This CR		
13.	Completed by: <u>[Signature]</u> Date: <u>4/1/93</u>		
14.	WHC Verify Implementation: <u>[Signature]</u> Date: <u>4/1/93</u> Phone No. <u>3-1779</u>		

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 129

Sheet 1 of 1

Rejected 4-6-93 CANCEL

1.	Hardware/Software/Document Name: <u>Screen "MSPEC Ø" Error / OK</u>		
	Version/Revision: _____		
2.	CR Type: ☐ Development ☐ Correct Problem ☐ Enhancement ☐ Other		
3.	Short Task Description/Justification: ☐ See Attached <u>Correct status block on screen "MSPEC Ø". Currently shows both ERROR and OK.</u>		
4.	Detail Description: ☐ See Attached		
5.	Originator Priority: <u>[3]</u> 1 = Critical 2 = Very Important 3 = Important 4 = Interesting		
6.	Originator: <u>G. Lauck</u> Date: <u>3, 8, 93</u> Phone No.: <u>3-1779.</u>		
7.	Disposition: Priority (See 5.) ☐ Classification: ☐ I ☐ II ☐ Approve ☐ Approve/Modify ☒ Reject ☒ Defer	Implement: ☐ Yes ☐ Wait for approval ☐ At next mandatory change	☒ OACS test required
8.	TRG ¹ /CCB ² Approval: _____ _____ _____ Date: ____/____/____ _____ Date: ____/____/____ _____ Date: ____/____/____		
9.	Assigned to: _____ Phone No. _____		
10.	Copy to originator: ☐ After CCB/TRG disposition (Date: ____/____/____) ☐ After change implementation (Date: ____/____/____)		
11.	Change Comments or Hardware/Software/Documents Affected by Change: ☐ See Attached _____ _____ _____ _____		
12.	How was change implemented? ☐ ECN _____ ☐ Ltr No. _____ ☐ This CR		
13.	Completed by: _____ Date: ____/____/____		
14.	WHC Verify Implementation: _____ Date: ____/____/____ Phone No. _____		

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 130

Sheet 1 of 1

Cancelled Rejected 3-23-93

ORIGINAL

1.	Hardware/Software/Document Name: <u>Screen "HYDROGEN" ^{upper} Right Hand Corner Change</u> Version/Revision: _____		
2.	CR Type: () Development (☒) Correct Problem () Enhancement () Other		
3.	Short Task Description/Justification: () See Attached The buttons in top right hand corner of HYDROGEN screen for "SHOW ALL H ₂ VALUES" and "OTHER GASES" are reversed		
4.	Detail Description: () See Attached Link "SHOW ALL H ₂ VALUES" to Screen <u>H₂ LOOK GASSUM</u> Link "OTHER GASES" to Screen <u>NH₂ UNK7A</u>		
5.	Originator Priority: [2] 1=Critical 2=Very Important 3=Important 4=Interesting		
6.	Originator: <u>A. Louch</u> Date: <u>3/8/93</u> Phone No.: <u>31779.</u>		
7.	Disposition: Priority (See 5.) () Classification: () I () II () Approve () Approve/Modify ☒ Reject () Defer	Implement: () Yes () Wait for approval () At next mandatory change	☒ DACS test required
8.	TRG ¹ /CCB ² Approval: <u>[Signature]</u> Date: <u>3/23/93</u> <u>H.F. Vargo</u> Date: <u>3/23/93</u> Date: ____/____/____		
9.	Assigned to: _____ Phone No. _____		
10.	Copy to originator: () After CCB/TRG disposition (Date: ____/____/____) () After change implementation (Date: ____/____/____)		
11.	Change Comments or Hardware/Software/Documents Affected by Change: () See Attached _____ _____ _____ _____		
12.	How was change implemented? () ECN _____ () Ltr No. _____ () This CR		
13.	Completed by: _____ Date: ____/____/____		
14.	WHC Verify Implementation: _____ Date: ____/____/____ Phone No. _____		

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 131

Sheet 1 of 1

1.	Hardware/Software/Document Name: <u>Screen HVT ALARM H2 Range</u> Version/Revision: _____														
2.	CR Type: ☐ Development ☐ Correct Problem ☐ Enhancement ☐ Other														
3.	Short Task Description/Justification: ☐ See Attached <u>Change description for DACS tag N1R17B01 from "0-100..." to "0-1%..."</u>														
4.	Detail Description: ☐ See Attached														
5.	Originator Priority: ☒ 1 = Critical 2 = Very Important 3 = Important 4 = Interesting														
6.	Originator: <u>Greg Guenck</u> Date: <u>3/8/93</u> Phone No.: <u>31779</u>														
7.	<table border="0"><tr><td>Disposition:</td><td>Priority (See 5.) ☒ 2</td><td>Implement:</td></tr><tr><td></td><td>Classification: ☐ I ☒ II</td><td>☒ Yes ☐ Wait for approval</td></tr><tr><td></td><td>☒ Approve ☐ Approve/Modify</td><td>☐ At next mandatory change</td></tr><tr><td></td><td>☐ Reject ☐ Defer</td><td></td></tr></table> <div style="border: 1px solid black; padding: 5px; width: fit-content; float: right;">DACS test required</div>			Disposition:	Priority (See 5.) ☒ 2	Implement:		Classification: ☐ I ☒ II	☒ Yes ☐ Wait for approval		☒ Approve ☐ Approve/Modify	☐ At next mandatory change		☐ Reject ☐ Defer	
Disposition:	Priority (See 5.) ☒ 2	Implement:													
	Classification: ☐ I ☒ II	☒ Yes ☐ Wait for approval													
	☒ Approve ☐ Approve/Modify	☐ At next mandatory change													
	☐ Reject ☐ Defer														
8.	TRG ¹ /CCB ² Approval: <u>Anthony W. [Signature]</u> Date: <u>3/9/93</u> <u>[Signature]</u> Date: <u>3/9/93</u> <u>for telecon w/ G.E. Vargo</u> Date: <u>3/9/93</u>														
9.	Assigned to: _____ Phone No. _____														
10.	Copy to originator: ☐ After CCB/TRG disposition (Date: ____/____/____) ☐ After change implementation (Date: ____/____/____)														
11.	Change Comments or Hardware/Software/Documents Affected by Change: ☐ See Attached <u>Change - Monitor Inlet Air Report 1194</u>														
12.	How was change implemented? ☐ ECN _____ ☐ Ltr No. _____ ☐ This CR														
13.	Completed by: <u>[Signature]</u> Date: <u>4/1/93</u>														
14.	WHC Verify Implementation: <u>[Signature]</u> Date: <u>4/1/93</u> Phone No. <u>31779</u>														

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 132Sheet 1 of 1

1.	Hardware/Software/Document Name: <u>CSMAIN SCREEN</u>		
	Version/Revision: _____		
2.	CR Type: ☐ Development ☒ Correct Problem ☐ Enhancement ☐ Other		
3.	Short Task Description/Justification: ☐ See Attached <u>WHEN ALARM LIMIT IS FOR TEST DURATION ON CSMAIN SCREEN, THE ALARM LIMIT READS "10 SEC".</u>		
4.	Detail Description: ☐ See Attached <u>CHANGE 10 SEC READOUT TO 30 SEC FOR LOW FLOW TEST.</u>		
5.	Originator Priority: <u>[2]</u> 1 = Critical 2 = Very Important 3 = Important 4 = Interesting		
6.	Originator: <u>G. GAUCK</u> Date: <u>3/8/93</u> Phone No.: <u>3-1779</u>		
7.	Disposition:	Priority (See 5.): <u>[2]</u>	Implement:
		Classification: ☐ ☒ ☐ ☐	☒ Yes ☐ Wait for approval
		☒ Approve ☐ Approve/Modify	☐ At next mandatory change
		☐ Reject ☐ Defer	
			☒ DACS test required
8.	TRG ¹ /CCB ² Approval: <u>[Signature]</u>		Date: <u>3/9/93</u>
	<u>[Signature]</u>		Date: <u>3/9/93</u>
	<u>[Signature]</u>		Date: <u>3/9/93</u>
9.	Assigned to: _____ Phone No. _____		
10.	Copy to originator: ☐ After CCB/TRG disposition (Date: <u> </u> / <u> </u> / <u> </u>) ☐ After change implementation (Date: <u> </u> / <u> </u> / <u> </u>)		
11.	Change Comments or Hardware/Software/Documents Affected by Change: ☐ See Attached <u>v19.4</u>		
12.	How was change implemented? ☐ ECN _____ ☐ Ltr No. _____ ☐ This CR		
13.	Completed by: <u>[Signature]</u> Date: <u>3/30/93</u>		
14.	WHC Verify Implementation: <u>[Signature]</u> Date: <u>3/30/93</u> Phone No. <u>3-1779</u>		

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 133

Sheet 1 of 1

Rejected 4-6-93

1.	Hardware/Software/Document Name: MIT/UDTT HIGH FREQUENCY DISPLAY Version/Revision: _____		
2.	CR Type: ☒ Development ☐ Correct Problem ☐ Enhancement ☐ Other		
3.	Short Task Description/Justification: ☐ See Attached Add display for MIT/UDTT HIGH FREQUENCY ALARM AND ABORT TO screen STRNALM		
4.	Detail Description: ☐ See Attached Potential locations include adding additional columns and directions in the "INSTRUCTIONS" block.		
5.	Originator Priority: ☒ 1 = Critical 2 = Very Important 3 = Important 4 = Interesting		
6.	Originator: <u>E. A. /</u> Date: <u>3/8/93</u> Phone No.: <u>3-1779</u>		
7.	Disposition: ☒ Reject ☐ Defer ☒ CANCEL	Priority (See 5.) ☐ Classification: ☐ I ☐ II ☐ Approve ☐ Approve/Modify	Implement: ☐ Yes ☐ Wait for approval ☐ At next mandatory change ☒ DACS test required
8.	TRG ¹ /CC3 ² Approval: _____ _____ _____ Date: ____/____/____ _____ _____ _____ Date: ____/____/____ _____ _____ _____ Date: ____/____/____		
9.	Assigned to: _____ Phone No. _____		
10.	Copy to originator: ☐ After CCB/TRG disposition (Date: ____/____/____) ☐ After change implementation (Date: ____/____/____)		
11.	Change Comments or Hardware/Software/Documents Affected by Change: ☐ See Attached _____ _____ _____ _____ _____		
12.	How was change implemented? ☐ ECN _____ ☐ Ltr No. _____ ☐ This CR		
13.	Completed by: _____ Date: ____/____/____		
14.	WHC Verify Implementation: _____ Date: ____/____/____ Phone No. _____		

HYDROGEN MITIGATION TEST PROJECT

Change Request

ORIGINALCR No.: 134Sheet 1 of 2

Cancelled 4-1-93

BEST AVAILABLE COPY

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: DACS SOFTWARE			
	VERSION/REVISION: _____				
	CR TYPE: ☐ DEVELOPMENT ☒ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER				
	DESCRIPTION OF CHANGE: ☒ See Attached Develop required changes to DACS software that makes corrections to the weather station thermocouple input to the DACS. See attached for temperature comparisons.				
C C B		JUSTIFICATION FOR CHANGE: ☐ See Attached			
		Temperature readings at DACS do not agree with outside ambient temperature as recorded by a digital thermocouple.			
		HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:			
		☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☒ I/O Channel List ☒ DACS Software ☐ Other _____			
	ORIGINATOR PRIORITY: ☐ 1 ☐ 2 ☐ 3 1=Mandatory 2=Important 3=Nice to have				
	ORIGINATOR: D. C. Larsen Date: 3/15/93 Phone No.: 3-1847				
	2.	CLASSIFICATION:	DISPOSITION:	WHEN TO IMPLEMENT CHANGE:	IS AN ATP REQUIRED
		☐ I ☒ II	☒ Approve ☐ Approve/Modify ☐ Reject ☒ Cancel 4-1-93 ☐ Defer	☒ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change	☒ Yes ☐ No
		TRG ¹ /CCB ² APPROVAL:			
		Date: 3/23/93 Date: 3/23/93 Date: 3/30/93			
		ASSIGNED TO: JEFF MARTIN (LANL) Phone No. (702) 295-3385			
	3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None Best fit linear regression to correct DACS output to actual weather station thermocouples. Slope 36.217, intercept -58.787. New range -58.787 for 0V and 306.38 for 10V. Channel List should reflect this new range. Note: This is simply making one reading equal to other. It says nothing about which instrument is more accurate. (whose calibration agreement does one believe more?)			
		CHANGE COMPLETED BY: <u>[Signature]</u> Date: 3/30/93 Phone No. 546-5015			
	4.	CHANGE VERIFIED BY: <u>[Signature]</u> Date: 3/30/93 Phone No. 3-17229			

HYDROGEN MITIGATION TEST PROJECT
Change Request (Continuation Sheet)

ORIGINAL

CR No.: 134

Sheet 2 of 2

[X] Description [] Justification [] Change Comments

DIGITAL THERMOMETER

DACS

<u>°C</u>	<u>°F</u>	<u>°F</u>
10.4	50.72	49.8
15.1	59.18	58.5
20.1	68.18	67.3
25.11	77.18	76.5
30.3	86.54	85.6
35.4	95.72	94.7
40.4	104.72	103.5
45.6	114.08	112.6
50.7	123.26	121.6
55.9	132.62	130.7
60.9	141.62	139.1

Signature: D. C. LARSEN

Date: 3 / 15 / 93

Form #: HMTP-CRCS-1 (3-18-93)

HYDROGEN MITIGATION TEST PROJECT

Change Request

ORIGINAL

CR No.: 135

Sheet 1 of 1

BEST AVAILABLE COPY

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: DACS SOFTWARE (Minimum Instrument List Report)			
	VERSION/REVISION: _____				
	CR TYPE: ☐ DEVELOPMENT ☒ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER				
	DESCRIPTION OF CHANGE: ☐ See Attached				
	Add DACS tags for Group 1 and Group 2 Hydrogen Concentration instruments (GC3-H2 and MS-H2) and Pump Discharge Pressure/Volute Pressure (PCR12A01) to the DACS minimum instrument list report.				
C C B		JUSTIFICATION FOR CHANGE: ☐ See Attached			
	To complete the Minimum Instrument List Report (DACs tags are missing from the report but are in the Phase A minimum instrument checklist).				
	HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:				
	☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel List ☒ DACS Software ☐ Other _____				
	ORIGINATOR PRIORITY: ☒ 2 1=Mandatory 2=Important 3=Nice to have				
	ORIGINATOR: G. Gauck		Date: 3/15/93 Phone No.: 3-1779		
C C B	2.	CLASSIFICATION:	DISPOSITION:	WHEN TO IMPLEMENT CHANGE:	IS AN ATP REQUIRED
		☐ I ☒ II	☒ Approve ☐ Approve/Modify	☒ Upon completion of change	☒ Yes
			☐ Reject ☐ Cancel	☐ Prepare change and wait for approval	☐ No
			☐ Defer	☐ At next mandatory change	
		TRG ¹ /CCB ² APPROVAL:			
		<i>[Signature]</i>		Date: 3/23/93	
		<i>[Signature]</i>		Date: 3/23/93	
		<i>[Signature]</i>		Date: 3/20/93	
	ASSIGNED TO: JEFF MARTIN		Phone No. 702 295 3385		
3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None Also removed VDTT sensors from minimum instrument report since they are no longer in the Phase A Test Procedure (rev 2). Removed MS Hydrogens from (and NITROGEN) report for the same reason. v1.9.4				
	CHANGE COMPLETED BY: <i>[Signature]</i> Date: 4-1-93 741 Phone No. 546-5015				
4.	CHANGE VERIFIED BY: <i>[Signature]</i> Date: 3-30-93 Phone No. 3-1779				

HYDROGEN MITIGATION TEST PROJECT

Change Request

ORIGINALCR No.: 136Sheet 1 of 1*Rejected 3-30-93*

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: Phase A Test Procedure (WHC-SD-WM-TP1-004)			
	REVISION: 001				
	CR TYPE: ☐ DEVELOPMENT ☐ CORRECT PROBLEM ☒ ENHANCEMENT ☐ OTHER				
	DESCRIPTION OF CHANGE: ☐ See Attached Clarify, in Checklist 1: Pre Phase A Pump Bumping and Checklist 2: Phase A Testing, how the requiremnt "Measured by DACS" will be operationally checked for the parameter "Elapsed Time of Pump Operation."				
C C B		JUSTIFICATION FOR CHANGE: ☐ See Attached It is unclear how to perform the operability check for elapsed time of pump operation.			
		HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE: ☐ FDC ☐ ATP ☐ SDD ☒ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel List ☐ DACS Software ☐ Other _____			
		ORIGINATOR PRIORITY: ☐ 1 ☒ 2 ☐ 3 1=Mandatory 2=important 3=Nice to have			
		ORIGINATOR: G. Gauck Date: 3/15/93 Phone No.: 3-1779			
	2.	CLASSIFICATION: ☐ I ☐ II	DISPOSITION: ☐ Approve ☐ Approve/Modify ☒ Reject ☒ Cancel ☒ Defer	WHEN TO IMPLEMENT CHANGE: ☐ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change	IS AN ATP REQUIRED ☐ Yes ☐ No
		TRG ¹ /CCB ² APPROVAL: _____ _____ _____			
		ASSIGNED TO: _____ Phone No. _____			
	3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None			
		CHANGE COMPLETED BY: _____ Date: ____/____/____ Phone No. _____			
	4.	CHANGE VERIFIED BY: _____ Date: ____/____/____ Phone No. _____			

HYDROGEN MITIGATION TEST PROJECT

Change Request

ORIGINALCR No.: 137Sheet 1 of 1

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: DACS Strategy VERSION/REVISION: _____ CR TYPE: ☐ DEVELOPMENT ☐ CORRECT PROBLEM ☒ ENHANCEMENT ☐ OTHER DESCRIPTION OF CHANGE: ☐ See Attached Remove all blocks from the DACS strategy that are associated with VDTT sensors that have been declared Sensor-Out-Of-Commission. JUSTIFICATION FOR CHANGE: ☐ See Attached The system will be more efficient and accommodate future instrument additions such as a second MIT. HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE: ☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☒ I/O Channel List ☒ DACS Software ☐ Other _____ ORIGINATOR PRIORITY: ☐ 1 = Mandatory 2 = Important 3 = Nice to have ORIGINATOR: R. Mendoza Date: 3/15/93 Phone No.: 3-2007			
	C C B	2.	CLASSIFICATION: ☐ I ☒ II DISPOSITION: ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel ☐ Defer WHEN TO IMPLEMENT CHANGE: ☒ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change IS AN ATP REQUIRED: ☐ Yes ☒ No TRG ¹ /CCB ² APPROVAL: _____ _____ Date: 3/23/93 _____ Date: 3/23/93 _____ Date: 3/30/93 ASSIGNED TO: JEFF MARTIN/RUBEN M. Phone No. (702) 295-3385		
		3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☒ None X TIR1B03, X TIR1B01, X DCR1B03, X DCR1B01, X DCR1B04, X TIR1406, X TIR1405 X TIR1405, X TIR1401, X DCR1406, X DCR1402, X DCR1401, X DIR01B04, X DIR01B01 X DIR01B04, X DIR1406, X DIR1402, X DIR1401, X DCR1405, X DIR1405 1/19/94 CHANGE COMPLETED BY: _____ Date: 3/30/93 Phone No.: _____		
		4.	CHANGE VERIFIED BY: _____ Date: 3/30/93 Phone No.: 3-1229		

Form #: HMTP-CR-1 (3-18-93)

1 = CLASS I / 2 = CLASS II

HYDROGEN MITIGATION TEST PROJECT

Change Request

ORIGINAL

CR No.: 138

Sheet 1 of 3

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: DACS			
	VERSION/REVISION: _____				
	CR TYPE: ☒ DEVELOPMENT ☐ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER				
	DESCRIPTION OF CHANGE: ☒ See Attached				
	Remove DACS per the attached list.				
C C B		JUSTIFICATION FOR CHANGE: ☐ See Attached			
		The tags are no longer being used.			
		HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:			
		☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☒ I/O Channel List ☒ DACS Software ☐ Other _____			
		ORIGINATOR PRIORITY: ☐ 1 = Mandatory 2 = Important 3 = Nice to have			
	ORIGINATOR: R. Mendoza Date: 3/15/93 Phone No.: 3-2007				
	2.	CLASSIFICATION:	DISPOSITION:	WHEN TO IMPLEMENT CHANGE:	IS AN ATP REQUIRED
		☐ I ☒ II	☒ Approve ☐ Approve/Modify	☒ Upon completion of change	☐ Yes
			☐ Reject ☐ Cancel	☐ Prepare change and wait for approval	☒ No
			☐ Defer	☐ At next mandatory change	
		TRG ¹ /CCB ² APPROVAL:			
		<i>Jeff Martin</i>			Date: 3/23/93
		<i>G.F. Vargo</i>			Date: 3/23/93
		<i>R. Mendoza</i>			Date: 3/30/93
		ASSIGNED TO: JEFF MARTIN/RUBEN MENDOZA			Phone No. (702) 295-3385
	3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None			
		CHANGE COMPLETED BY: <i>Jeff Martin</i>			
		Date: 3/30/93 Phone No. _____			
	4.	CHANGE VERIFIED BY: <i>Deanna Carey</i>			
		Date: 3/30/93 Phone No. 3-1774			

WHC-SD-WM-EL-001; REV. 1

LOCATION #5

COMMENTS

2/3

SY-101 HYDROGEN MITIGATION TEST DACS INPUT/OUTPUT CHANNEL LIST
WHC-SD-WM-EL-001; REV. 1

FEBRUARY 26, 1993

LOCATION #5								
DACS TAG	DACS I/O	BLOCK DESCRIPTION	DISPLAYS	TAG NUMBER	H-2-XXXXX	HIST FILE	HIST PERIOD	TYPE
ITULT421	INPUT	800A BREAKER PHASE A CURRENT		Not implemented				PAIN
ITULT422	INPUT	800A BREAKER PHASE B CURRENT		Not implemented				PAIN
ITULT423	INPUT	800A BREAKER PHASE C CURRENT		Not implemented				PAIN
ITULT431	INPUT	ESSENTIAL LOAD PHASE A CURRENT		Not implemented				PAIN
ITULT432	INPUT	ESSENTIAL LOAD PHASE B CURRENT		Not implemented				PAIN
ITULT433	INPUT	ESSENTIAL LOAD PHASE C CURRENT		Not implemented				PAIN
KTULT425	INPUT	800A BREAKER KW		Not implemented				PAIN
KTULT435	INPUT	ESSENTIAL LOAD KW		Not implemented				PAIN
QTULT424	INPUT	800A BREAKER KW		Not implemented				PAIN
QTULT434	INPUT	ESSENTIAL LOAD BUS FREQUENCY		Not implemented				PAIN
VTULT421	INPUT	800A BREAKER PHASE A VOLTAGE		Not implemented				PAIN
VTULT422	INPUT	800A BREAKER PHASE B VOLTAGE		Not implemented				PAIN
VTULT423	INPUT	800A BREAKER PHASE C VOLTAGE		Not implemented				PAIN
VTULT431	INPUT	ESSENTIAL LOAD PHASE A VOLTAGE		Not implemented				PAIN
VTULT432	INPUT	ESSENTIAL LOAD PHASE B VOLTAGE		Not implemented				PAIN
VTULT433	INPUT	ESSENTIAL LOAD PHASE C VOLTAGE		Not implemented				PAIN
COMMENTS								

ORIGINAL CR 138
3/3

HYDROGEN MITIGATION TEST PROJECT

Change Request

ORIGINAL

CR No.: 139

Sheet 1 of 2

BEST AVAILABLE COPY

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: DACS Software VERSION/REVISION: _____ CR TYPE: ☐ DEVELOPMENT ☐ CORRECT PROBLEM ☒ ENHANCEMENT ☐ OTHER DESCRIPTION OF CHANGE: ☒ See Attached Change the DACS software per the attached information. JUSTIFICATION FOR CHANGE: ☐ See Attached 1. The current arrangement of tags and history files are not in an optimum form for WHC and PNL use. 2. The archive rate changes are in accordance with the Test Plan. HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE: ☐ FDC ☐ ATP ☐ SDD ☒ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel List ☒ DACS Software ☐ Other _____ ORIGINATOR PRIORITY: ☐ 1 = Mandatory 2 = Important 3 = Nice to have ORIGINATOR: W. B. Gregory Date: 3/15/93 Phone No.: 375-6568			
	C C B	2.	CLASSIFICATION: ☐ I ☒ II DISPOSITION: ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel ☐ Defer WHEN TO IMPLEMENT CHANGE: ☒ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change IS AN ATP REQUIRED: ☒ Yes ☐ No TRG ¹ /CCB ² APPROVAL: <u>Guy Bear</u> Date: 3/23/93 <u>G.F. Vargo</u> Date: 3/23/93 <u>J. Martin</u> Date: 3/30/93 ASSIGNED TO: <u>JEFF MARTIN</u> Phone No. (902) 295-3385		
		3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None The PUMP archive rate is set to 1 sec when a LEFT or Pump Pump is Enabled. Remains at one sec until 20 minutes can sample has been absent for 20 minutes. Then it then returns to its default of 5 minutes. There is an indicator showing the Archive Rate on the PUMPALRM screen. The rate can be changed manually from the Pump Tag Detail Screen (F2) v1.9.4 CHANGE COMPLETED BY: <u>J. Martin</u> Date: 3/31/93 Phone No. 5485015		
		4.	CHANGE VERIFIED BY: <u>J. Martin</u> Date: 4/1/93 Phone No. 3-1779		

HYDROGEN MITIGATION TEST PROJECT

Change Request (Continuation Sheet)

ORIGINAL

CR No.: 139

Sheet 2 of 2

[X] Description [] Justification [] Change Comments

1. a. Move data channels 9-16 of file MISC.PRN to channels 13-20 of file R12A.PRN.
b. Change the name of file R12A.PRN to PUMP.PRN
c. Change the normal archive rate to 5 minutes except during pump bump and normal test operations.
d. Manually change the archive rate to 1 second 5 +5/-4 minutes before start of pump and change the 1 second rate back to a 5 minute rate 5 +10/-0 minutes after the pump has been stopped.
2. a. Create a new file labeled VOL.PRN.
b. Move channels 1-8 of file MISC.PRN into positions 1-8 of file VOL.PRN.
c. Move channels 1-12 of file H2.PRN into positions 9-20 of file VOL.PRN.
3. After 1 and 2 are completed, delete files MISC.PRN and H2.PRN from the archive procedure.
4. Change the sample rate for file MASS.PRN to 2.5 minutes.

NOTE: THE PROCEDURE TO MANUALLY CHANGE THE ARCHIVE RATES SHOULD BE PART OF THE PHASE A TEST PROCEDURE.

1d. SETUP SO THAT RATE CHANGE IS ~~IS~~ DONE AUTOMATICALLY WHEN PUMP IS ENABLED AND WHEN IT STOPS 20 MINUTES RESET BACK TO THE SLOW SAMPLE RATE.

Signature: W. B. Gregory

Date: 3 / 15 / 93

Form #: HMTP-CRCS-1 (3-18-93)

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 1410

ORIGINAL

Sheet 1 of 1

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS SOFTWARE</u>			
	VERSION/REVISION: _____				
	CR TYPE: ☐ DEVELOPMENT ☐ CORRECT PROBLEM ☒ ENHANCEMENT ☐ OTHER				
	DESCRIPTION OF CHANGE: ☐ See Attached <u>DELETE HYDROGEN SCREEN.</u>				
C C B		JUSTIFICATION FOR CHANGE: ☐ See Attached <u>NOT REQUIRED. DATA IS ALSO SHOWN ON GAS SUM SCREEN</u>			
		HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE: ☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☒ AOP ☒ ARP ☐ I/O Channel List ☐ DACS Software ☐ Other _____			
		ORIGINATOR PRIORITY: <u>[2]</u> 1=Mandatory 2=Important 3=Nice to have			
		ORIGINATOR: <u>T. LANEY</u> Date: <u>3/23/93</u> Phone No.: <u>3-1777</u>			
	2.	CLASSIFICATION: ☐ I ☒ II	DISPOSITION: ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel ☐ Defer	WHEN TO IMPLEMENT CHANGE: ☒ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change	IS AN ATP REQUIRED ☐ Yes ☒ No
		TRG ¹ /CCB ² APPROVAL: <u>[Signature]</u> Date: <u>3/23/93</u> <u>[Signature]</u> Date: <u>3/23/93</u> <u>[Signature]</u> Date: <u>3/30/93</u>			
		ASSIGNED TO: <u>M. ERMART</u> Phone No. _____			
	3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None <u>v1.9.4</u>			
		CHANGE COMPLETED BY: <u>[Signature]</u> Date: <u>3/30/93</u> Phone No. _____			
	4.	CHANGE VERIFIED BY: <u>[Signature]</u> Date: <u>3/30/93</u> Phone No. <u>3-1777</u>			

HYDROGEN MITIGATION TEST PROJECT

Change Request

ORIGINAL

CR No.: 141

Sheet 1 of 1

Canceled 3 30 93

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS SOFTWARE</u>			
	VERSION/REVISION: _____				
	CR TYPE: ☐ DEVELOPMENT ☐ CORRECT PROBLEM ☒ ENHANCEMENT ☐ OTHER				
	DESCRIPTION OF CHANGE: ☐ See Attached 1. ADD 'CLICK' BUTTON TO GAS SUM SCREEN TITLED: OTHER GASES 2. LINK BUTTON TO NH2VHR7A JUSTIFICATION FOR CHANGE: ☐ See Attached HYDROGEN SCREEN IS DELETED - GAS INFO LINK IS NOT AVAILABLE FROM GAS SUM SCREEN. HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE: ☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel List ☒ DACS Software ☐ Other _____ ORIGINATOR PRIORITY: [2] 1=Mandatory 2=Important 3=Nice to have ORIGINATOR: <u>T. LANEY/G. GAUCK</u> Date: <u>3/23/93</u> Phone No.: <u>3-1779</u>				
C C B	2.	CLASSIFICATION: ☐ I ☒ II	DISPOSITION: ☒ Approve ☐ Approve/Modify ☐ Reject ☒ Cancel ☐ Defer	WHEN TO IMPLEMENT CHANGE: ☒ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change	IS AN ATP REQUIRED ☐ Yes ☒ No
	TRG ¹ /CCB ² APPROVAL:				
	<u>Sperry Bean</u> Date: <u>3/23/93</u>				
	<u>H.F. Vargo</u> Date: <u>3/23/93</u>				
<u>T. Laney</u> Date: <u>3/30/93</u>					
ASSIGNED TO: <u>M. SCHARF</u>		Phone No. _____			
3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None <u>NH2VHR7A WAS DELETED</u> <u>V1.94</u> CHANGE COMPLETED BY: _____ Date: ____/____/____ Phone No. _____				
4.	CHANGE VERIFIED BY: _____ Date: ____/____/____ Phone No. _____				

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 142

ORIGINAL

Sheet 1 of 1

142

1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS</u> VERSION/REVISION: _____ CR TYPE: ☐ DEVELOPMENT ☒ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER	DESCRIPTION OF CHANGE: ☐ See Attached Remove the "Other Alarms" indicator from the control screens. Also, remove the instruction boxes from the control screens.	JUSTIFICATION FOR CHANGE: ☐ See Attached This indicator is not necessary because there will already be an audible and visual indication. This change will also free up significant computer time. Instruction boxes are not and will not be used.	HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE: ☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel List ☒ DACS Software ☐ Other _____	ORIGINATOR PRIORITY: ☐ 1 = Mandatory ☒ 2 = Important ☐ 3 = Nice to have ORIGINATOR: <u>R. Mendez</u> Date: <u>3/23/93</u> Phone No.: <u>3-2007</u>	2.	CLASSIFICATION: ☒ I ☐ II DISPOSITION: ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel WHEN TO IMPLEMENT CHANGE: ☒ Upon completion of change ☐ No ☒ Yes IS AN ATP REQUIRED	3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None	4.	CHANGE COMPLETED BY: <u>[Signature]</u> Date: <u>3/30/93</u> Phone No.: <u>3-1779</u> CHANGE VERIFIED BY: <u>[Signature]</u> Date: <u>4/1/93</u> Phone No.: <u>3-1779</u>
----	--	---	---	--	---	----	--	----	--	----	--

Form #: HMTF-CR-1 (3-18-93)

/ 1 = CLASS I 2 = CLASS II

WHC-SD-WM-CMD-002 Rev. 0
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HYDROGEN MITIGATION TEST PROJECT

Change Request

ORIGINAL

CR No.: 143
Sheet 1 of 22

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS SCREENS</u>		
	VERSION/REVISION: _____			
	CR TYPE: ☐ DEVELOPMENT ☐ CORRECT PROBLEM ☒ ENHANCEMENT ☐ OTHER			
	DESCRIPTION OF CHANGE: ☒ See Attached CHANGE DACS SCREENS AND MAP HIERARCHY PER ATTACHED DELETE SCREEN NH2VHR7A			
C C B		JUSTIFICATION FOR CHANGE: ☐ See Attached SCREENS ARE NOT STANDARDIZED, THEY ARE 2		
		HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE: ☐ FDC ☐ ATP ☒ SDD ☒ Phase A TP ☐ Phase B TP ☒ AOP ☒ ARP ☐ I/O Channel List ☒ DACS Software ☐ Other _____		
		PRIORITY: ☐ 1 ☐ 2 ☐ 3 1=Mandatory 2=Important 3=Nice to have		
		ORIGINATOR: <u>T. LANEY</u> Date: <u>3/29/93</u> Phone No.: <u>3-1779</u>		
C C B	2.	CLASSIFICATION: ☐ I ☒ II	DISPOSITION: ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel ☐ Defer	WHEN TO IMPLEMENT CHANGE: ☒ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change
		IS AN ATP REQUIRED ☐ Yes ☒ No		
	APPROVAL: TRG ¹ /CCB ²	Date: <u>3/30/93</u> Date: <u>3/30/93</u> Date: <u>3/30/93</u>		
	ASSIGNED TO: <u>M. ERHART J. MARTIN</u>	Phone No.: <u>(702) 295-3385</u>		
	INFORM PROCEDURE WRITERS: <u>Bobounis</u> ☐ Per Telecon Date: <u>1/1</u>			
	3.	COMPLETED CHANGE COMMENTS: ☒ See Attached ☐ None V19.4		
		CHANGE COMPLETED BY: <u>J. Martin</u> Date: <u>3/30/93</u> Phone No.: <u>546-5015</u>		
	4.	CHANGE VERIFIED BY: <u>Thane Laney</u> Date: <u>3/30/93</u> Phone No.: <u>3-1779</u>		

HYDROGEN MITIGATION TEST PROJECT

Change Request (Continuation Sheet)

CR No.: 143

Sheet 2 of 22

X Description [] Justification [] Change Comments

1. CHANGE BORDER DESCRIPTION TO LOOK PER BELOW. LINK BLUE BLOCKS TO APPROPRIATE SCREEN. PAGE BACK IS UP ONE LEVEL IN HIERARCHY.

PAGE BACK	TITLE	(TAG)	MAP	CS	MS	AS
			HH:MM:SS		MM:DD:YY	
					<div>AS</div> <div>REQUIRED</div>	

2. ADD SUMMARY SCREEN
3. CHANGE MAP ARRANGEMENT
4. DELETE INSTREE, MSPEC, MSPEC0, MSPEC 5, AND SY101-1 FROM MAP SCREEN.
5. MOVE INSTREE PICK ITEMS TO RSRPRFL SCREEN
6. CHANGE GASSUM SCREEN & ADD TAGS
7. EXCHANGE NOZZLE ID'S TO ON MPSMR12A
8. CHANGE VDTT ~~COLORS~~ COLORS TO WHITE AND SOOC TO DARK GRAY
9. IN GENERAL, CHANGE ALL ACTIVE DATA AND TEXT TO WHITE. ALL SOOC TO DARK GRAY AND ALL PICK ITEMS TO BLUE BACKGROUND WITH WHITE LETTERS
10. CHANGE MPR12A, AND IOSTATUS PER ATTACHED.
11. BORDER CHANGES ONLY FOR:
 - A. ALL ASMAIN SCREENS
 - B. RRDORT ~~E. MH2VHRTA~~
 - C. TEMPRFL ~~F. ITRDIAG~~
 - D. ALL CSMAIN SCREENS G.

Signature: T. Loney

Date: 3/29/97

HYDROGEN MITIGATION TEST PROJECT
Change Request (Continuation Sheet)

CR No.: 143

Sheet 3 of 22

☐ Description ☐ Justification ☒ Change Comments

1. DELETED HYDROGEN, H₂ LOOK, AND INSTREE SCREENS
2. TRANSFERED INSTREE INFO TO RSRPRFL SCREEN
3. ADDED GASSUM ADDITIONAL TAGS
4. ADDED SUMMARY
5. CREATED STANDARD BORDER
6. ENLARGED BORDER PICK BUTTONS
7. CHANGED COLORS FOR DATA AND TEXT TO WHITE
8. CHANGED COLOR FOR ALL SOOC INSTRUMENTS TO DARK GRAY.
9. CHANGED COLOR FOR ALL "PICK" ITEMS TO BLUE BUTTONS WITH WHITE TEXT OR BLUE BACKGROUND WITH WHITE TEXT
10. DELETED REDUNDANT DATA
11. DELETED EYESORE COLORS.
12. DELETED SY101-1, MSPEC, MSPECO, MSPEC5
13. EXCHANGED NOZZLE ID'S ON MPSMR12A
14. DELETED ITRDIAG TAPES.
15. REDEFINED MAP COLOR SCHEME.

Signature: J. Coney

Date: 3/29/93

URGENT

HYDROGEN MITIGATION TEST PROJECT

URGENT

Change Request

ORIGINAL

CR No.: 144

Sheet 1 of 1

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS SOFTWARE</u>			
	VERSION/REVISION: _____				
	CR TYPE: ☐ DEVELOPMENT ☒ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER				
	DESCRIPTION OF CHANGE: ☐ See Attached <u>MODIFY SOFTWARE TO PROVIDE A STATION 5 INDICATION THAT THE E-STOP BUTTONS HAVE BEEN MANUALLY TRIPPED. ONCE IMPLEMENTED, THIS CHANGE REQUEST WILL CLEAR OUT ATP-046 TEST EXCEPTIONS #58, #64.</u>				
	JUSTIFICATION FOR CHANGE: ☐ See Attached <u>NO STATION 5 INDICATION EXISTS WHEN E-STOP BUTTONS ARE MANUALLY TRIPPED.</u>				
C C B		HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:			
		☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel List ☒ DACS Software ☐ Other _____			
		PRIORITY: ☐ 1 = Mandatory 2 = Important 3 = Nice to have			
		ORIGINATOR: <u>G. GAUCK/D. LARSEN</u> Date: <u>3, 29, 93</u> Phone No.: <u>3-1779/3-1847</u>			
		2. CLASSIFICATION: DISPOSITION: WHEN TO IMPLEMENT CHANGE: IS AN ATP REQUIRED			
		☐ ☒	☒ Approve ☐ Approve/Modify	☒ Upon completion of change	☒ Yes
		☐ Reject ☐ Cancel	☐ Prepare change and wait for approval	☐ No	
		☐ Defer	☐ At next mandatory change		
		APPROVAL: <u>J. Martin</u> Date: <u>3, 30, 93</u>			
		<u>G. Gauck</u> Date: <u>3, 30, 93</u>			
		<u>H. F. Vance</u> Date: <u>3, 30, 93</u>			
		ASSIGNED TO: <u>JEFF MARTIN</u> Phone No.: <u>(702) 285-3385</u>			
		INFORM PROCEDURE WRITERS: <u>Adams</u> ☐ Per Telecon Date: <u>3, 30, 93</u>			
	3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None <u>1.9.4</u>			
		CHANGE COMPLETED BY: <u>J. Martin</u> Date: <u>4, 1, 93</u> Phone No.:			
	4.	CHANGE VERIFIED BY: <u>J. Loney</u> Date: <u>8, 1, 93</u> Phone No.: <u>3-1779</u>			

URGENT

URGENT

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 145Sheet 1 of 1~~Canceled 4-29-93~~

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>GC3 Calibration Valve</u>			
	VERSION/REVISION: _____				
	CR TYPE: ☐ DEVELOPMENT ☒ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER				
	DESCRIPTION OF CHANGE: ☐ See Attached <u>Control the GC3 Calibration valve using a digital output from DACS rather than channel B of the SpectraPhysics Integrator. This valve switches between Calibration and Sample Gas one every hour.</u>				
C C B		JUSTIFICATION FOR CHANGE: ☐ See Attached <u>The SpectraPhysics Integrator has locked-up repeatedly. The manufacturer recommends against using Channel B in this manner.</u>			
		HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:			
		☐ FDC ☒ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☒ I/O Channel List ☒ DACS Software ☒ Other <u>GC3 Procedure Manual 156</u>			
		PRIORITY: ☐ 1 ☒ 2 ☐ 3 1=Mandatory 2=important 3=Nice to have			
	ORIGINATOR:	<u>J. Martin</u>	Date: <u>3/30/93</u>	Phone No.: <u>546-5015</u>	
C C B	2.	CLASSIFICATION:	DISPOSITION:	WHEN TO IMPLEMENT CHANGE:	IS AN ATP REQUIRED
		☐ I ☒ II	☒ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel ☐ Defer	☒ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change	☒ Yes ☐ No
		APPROVAL:	Date: <u>3/30/93</u>		
		TRG ¹ /CCB ²	Date: <u>3/30/93</u>		
	ASSIGNED TO:	<u>JEFF MARTIN</u>	Phone No.: <u>(702) 295-3385</u>		
	INFORM PROCEDURE WRITERS:	<u>Abstract</u>	[] Per Telecon Date: <u>3/30/93</u>		
	3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None			
		CHANGE COMPLETED BY: _____ Date: ____/____/____ Phone No. _____			
	4.	CHANGE VERIFIED BY: _____ Date: ____/____/____ Phone No. _____			

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 146

Sheet 1 of 1

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS SOFTWARE</u>			
	VERSION/REVISION: _____				
	CR TYPE: ☐ DEVELOPMENT ☐ CORRECT PROBLEM ☒ ENHANCEMENT ☐ OTHER				
	DESCRIPTION OF CHANGE: ☐ See Attached <u>CREATE 2 BUTTONS ON MANABRT SCREEN</u> <u>THAT WILL ENABLE AND DISABLE NRR17BØ1 FOR</u> <u>PUMP INSTALLATION</u> <u>DEFAULT CONDITION IS DISABLED</u>				
	JUSTIFICATION FOR CHANGE: ☐ See Attached <u>NEED METHOD TO DISABLE TAG AFTER PUMP IS</u> <u>INSTALLED</u>				
HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE: ☐ FDC ☐ ATP ☐ SDD ☒ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel List ☒ DACS Software ☐ Other _____					
PRIORITY: ☐ 1=Mandatory 2=Important 3=Nice to have					
ORIGINATOR: <u>T. LANEY</u>		Date: <u>3, 30, 93</u> Phone No.: <u>3-1779</u>			
C C B	2.	CLASSIFICATION: ☐ ☒ ☐	DISPOSITION: ☒ Approve ☐ Approver/Modify ☐ Reject ☐ Cancel ☐ Defer	WHEN TO IMPLEMENT CHANGE: ☒ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change	IS AN ATP REQUIRED ☒ Yes ☐ No
	APPROVAL: TRG ¹ /CCS ²		<u>[Signature]</u> <u>[Signature]</u> <u>[Signature]</u>		Date: <u>3, 30, 93</u> Date: <u>3, 30, 93</u> Date: <u>3, 30, 93</u>
	ASSIGNED TO: <u>JEFF MARTIN</u>		Phone No.: <u>(702) 295-3385</u>		
	INFORM PROCEDURE WRITERS: <u>[Signature]</u>		☐ Per Telecon Date: <u>3, 30, 93</u>		
	3. COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None <u>2/1/94</u>				
CHANGE COMPLETED BY: <u>[Signature]</u>		Date: <u>4, 1, 93</u> Phone No.: <u>545 5015</u>			
4. CHANGE VERIFIED BY: <u>[Signature]</u>		Date: <u>4, 1, 93</u> Phone No.: <u>3-1779</u>			

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 147

Sheet 1 of 1

Canceled 8-31-93

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>PLC Logic</u>		
	VERSION/REVISION: _____			
	CR TYPE: ☐ DEVELOPMENT ☒ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER			
	DESCRIPTION OF CHANGE: ☐ See Attached <u>Use PLC Logic to remove out-of-range bit for hydrogen before doing Abort comparison. (still use this bit for instant problem detection). Offset should be removed from hydrogen measurement.</u>			
C C B	JUSTIFICATION FOR CHANGE: ☐ See Attached <u>Offset causes confusion with data analysis and • introduces data abort issues.</u>			
	HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:			
	☐ FDC ☐ ATP ☐ SDD ☒ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ VO Channel List ☒ DACS Software ☐ Other _____			
	PRIORITY: ☐ 1 = Mandatory 2 = Important 3 = Nice to have			
ORIGINATOR: <u>J. Martin</u>		Date: <u>8-31-93</u> Phone No.: <u>548-5015</u>		
C C B	2.	CLASSIFICATION:	DISPOSITION:	WHEN TO IMPLEMENT CHANGE:
	☐ I ☒ II		☒ Approve ☐ Approve/Modify	☒ Upon completion of change
			☐ Reject ☐ Cancel	☐ Prepare change and wait for approval
			☐ Defer	☐ At next mandatory change
APPROVAL:		IS AN ATP REQUIRED		
TRG ¹ /CCB ²		☐ Yes ☒ No		
ASSIGNED TO: <u>JEFF MARTIN</u>		Phone No.: _____		
INFORM PROCEDURE WRITERS: <u>Blood</u>		☐ Per Telecon Date: <u>8/30/93</u>		
3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None			
	CHANGE COMPLETED BY: _____ Date: ____/____/____ Phone No. _____			
4.	CHANGE VERIFIED BY: _____ Date: ____/____/____ Phone No. _____			

HYDROGEN MITIGATION TEST PROJECT

Change Request

BEST AVAILABLE COPY

CR No.: 148

Sheet 1 of 1

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS Software</u>		
	VERSION/REVISION: _____			
	CR TYPE: ☐ DEVELOPMENT ☒ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER			
	DESCRIPTION OF CHANGE: ☐ See Attached <u>Alarm Event Summary Files are not being saved properly. This should be fixed.</u>			
C C B	JUSTIFICATION FOR CHANGE: ☐ See Attached			
	HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:			
	☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ WO Channel List ☒ DACS Software ☐ Other _____			
	PRIORITY: ☐ 1 = Mandatory 2 = Important 3 = Nice to have			
ORIGINATOR: <u>J. Martin</u>		Date: <u>3/30/93</u> Phone No.: <u>5-55015</u>		
C C B	2.	CLASSIFICATION:	DISPOSITION:	WHEN TO IMPLEMENT CHANGE:
	☐ I ☒ II	☒ Approve ☐ Approve/Modify	☒ Upon completion of change	☐ Yes
		☐ Reject ☐ Cancel	☐ Prepare change and wait for approval	☒ No
		☐ Defer	☐ At next mandatory change	
APPROVAL:		Date: <u>3/30/93</u>		
TRG ¹ /CCB ²		Date: <u>3/30/93</u>		
		Date: <u>3/30/93</u>		
ASSIGNED TO: <u>JEFF MARTIN</u>		Phone No.: _____		
INFORM PROCEDURE WRITERS: <u>Adams</u>		☐ Per Telecon Date: <u>3/30/93</u>		
3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None <u>v1.9.4 Alarm text files are copied upon start-up of the station and transferred to station 9 upon the first start-up start-up. There will always be two files called ymdhmm.A.TAT ymdhmm.A.TAT and ymdhmm.B.TAT (one per station). One of the files will be bad (either 0 errors or parity, and the other will be the other OK.</u>			
	CHANGE COMPLETED BY: <u>J. Martin</u> Date: <u>4/1/93</u> Phone No.: _____			
4.	CHANGE VERIFIED BY: <u>J. Martin</u> Date: <u>4/1/93</u> Phone No.: <u>3-1777</u>			

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 149Sheet 1 of 1

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>Test Procedure, Phase A</u>			
	VERSION/REVISION: <u>1</u>				
	CR TYPE: ☐ DEVELOPMENT ☐ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER				
	DESCRIPTION OF CHANGE: ☐ See Attached <u>Add steps to restart software on stations 5 and 8 prior to performing test or bump</u>				
	JUSTIFICATION FOR CHANGE: ☐ See Attached <u>Resets all settings to default</u>				
C C B	HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE: ☐ FDC ☐ ATP ☐ SDD ☒ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel List ☐ DACS Software ☐ Other _____				
	PRIORITY: ☐ 1=Mandatory 2=Important 3=Nice to have				
	ORIGINATOR: <u>Green, Launch</u> Date: <u>3/30/93</u> Phone No.: <u>3-1779</u>				
	2.	CLASSIFICATION: ☐ ☒	DISPOSITION: ☒ Approve ☐ Approver/Modify ☐ Reject ☐ Cancel ☐ Defer	WHEN TO IMPLEMENT CHANGE: ☒ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change	IS AN ATP REQUIRED ☐ Yes ☒ No
	APPROVAL: TRG ¹ /CCB ²		<u>[Signature]</u> Date: <u>3/30/93</u> <u>[Signature]</u> Date: <u>3/30/93</u> <u>[Signature]</u> Date: <u>3/30/93</u>		
ASSIGNED TO: <u>Sobocinski</u>		Phone No.: <u>2-2037</u>			
INFORM PROCEDURE WRITERS: <u>[Signature]</u>		☐ Per Telecon		Date: <u>3/30/93</u>	
3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None				
	CHANGE COMPLETED BY: <u>[Signature]</u> Date: <u>8/24/93</u> Phone No.: <u>2-2037</u>				
4.	CHANGE VERIFIED BY: <u>[Signature]</u> Date: <u>8/24/93</u> Phone No.: <u>3-1779</u>				

HYDROGEN MITIGATION TEST PROJECT

Change Request

ORIGINAL

CR No.: 151

Sheet 1 of 1

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>NEW DACS SCREENS</u>		
	VERSION/REVISION: _____			
	CR TYPE: ☐ DEVELOPMENT ☐ CORRECT PROBLEM ☒ ENHANCEMENT ☐ OTHER			
	DESCRIPTION OF CHANGE: ☐ See Attached 1. CHANGE RSRPRFL BUTTON TO MSMAN 2. CHANGE ALL AFFECTED SCREENS TO REFLECT 1. (GASSUM, SUMMARY, ITR17B, ITR14A, ITR1B, MPMSR12A, AND MPRI2A) BUTTON LINK TO CHANGE IS PAGE BACK ON THESE SCREENS AND ALL MS BUTTONS.			
	JUSTIFICATION FOR CHANGE: ☐ See Attached SING ACTUAL WELCOME SCREEN CALLS THE RSRPRFL MSMAN, THE MAP SHOULD REFLECT THIS.			
HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE: ☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel List ☒ DACS Software ☐ Other _____				
PRIORITY: [3] 1=Mandatory 2=Important 3=Nice to have				
ORIGINATOR: <u>T. LANEY</u> Date: <u>3/31/92</u> Phone No.: <u>3-1779</u>				
C C B	2.	CLASSIFICATION: ☐ I ☒ II	DISPOSITION: ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel ☐ Defer	WHEN TO IMPLEMENT CHANGE: ☒ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change
	IS AN ATP REQUIRED ☐ Yes ☒ No			
	APPROVAL: TRG ¹ /CCB ² <u>S. Bean</u> Date: <u>4/6/93</u> <u>G.F. Varughese</u> Date: <u>4/6/93</u> <u>Arthur Ballalaba</u> Date: <u>4/6/93</u>			
	ASSIGNED TO: <u>MENDOZA</u> Phone No.: _____			
	INFORM PROCEDURE WRITERS: _____ [] Per Telecon Date: <u>1/1</u>			
3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None			
CHANGE COMPLETED BY: <u>T. Laney</u> Date: <u>4/30/93</u> Phone No.: <u>6-0126</u>				
4.	CHANGE VERIFIED BY: <u>T. Laney</u> Date: <u>4/30/93</u> Phone No.: _____			

HYDROGEN MITIGATION TEST PROJECT

Change Request

ORIGINAL

CR No.: 152

Sheet 1 of 1

Canceled 8-31-93

Original

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>I/O CHANNEL LIST (FOR NEW SCREENS)</u>		
	VERSION/REVISION: _____			
	CR TYPE: ☐ DEVELOPMENT ☒ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER			
	DESCRIPTION OF CHANGE: ☐ See Attached OLD <u>IN COLUMN "DISPLAYS" CHANGE!</u> <u>FM: HYDROGEN</u> <u>TO: GASSUM</u> <u>FM: NH2VHRTA</u> <u>TO: SUMMARY</u> <u>DELETE! MASS SPEC</u>			
	JUSTIFICATION FOR CHANGE: ☐ See Attached <u>NEW SCREENS DO NOT HAVE HYDROGEN, NH2VHRTA</u> <u>OR MASS SPEC</u>			
C C B	HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE: ☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☒ I/O Channel List ☐ DACS Software ☐ Other _____			
	PRIORITY: ☒ 1 = Mandatory 2 = Important 3 = Nice to have			
	ORIGINATOR: <u>T. Carney</u> Date: <u>5/12/93</u> Phone No.: <u>71779</u>			
	2. CLASSIFICATION: ☐ I ☒ II DISPOSITION: ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel ☐ Defer WHEN TO IMPLEMENT CHANGE: ☒ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change IS AN ATP REQUIRED: ☐ Yes ☒ No			
	APPROVAL: <u>S. Bear</u> Date: <u>4.6.93</u> <u>G.F. Vargo</u> Date: <u>4.6.93</u> <u>John A. P.</u> Date: <u>8.29.93</u> TRG ¹ /CCB ² ASSIGNED TO: <u>MENDOZA</u> Phone No.: _____ INFORM PROCEDURE WRITERS: _____ [] Per Telecon Date: <u>1/1</u>			
3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None			
	CHANGE COMPLETED BY: <u>[Signature]</u> Date: <u>8.12.93</u> Phone No.: <u>343-1771</u>			
4.	CHANGE VERIFIED BY: _____ Date: <u>1/1</u> Phone No.: _____			

HYDROGEN MITIGATION TEST PROJECT

Change Request

BEST AVAILABLE COPY

ORIGINAL

CR No.: 153

Sheet 1 of 1

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS SOFTWARE</u>			
	VERSION/REVISION: _____				
	CR TYPE: ☐ DEVELOPMENT ☐ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER				
	DESCRIPTION OF CHANGE: ☐ See Attached <u>Lowered instrument alarm fail alarm to NITKSY06 to .001%.</u> <u>End.</u>				
C C B		JUSTIFICATION FOR CHANGE: ☐ See Attached <u>Instrument fail alarm was previously set at .1%, a somewhat normal reading. Therefore, the alarm occurs immediately, and is not noticed when Zeke does instrument fail tests.</u>			
		HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:			
		☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ WO Channel List ☒ DACS Software ☐ Other _____			
		PRIORITY: ☐ 1=Mandatory 2=important 3=Nice to have			
	ORIGINATOR:	<u>J. Martin</u>	Date: <u>4.11.93</u>	Phone No.: <u>548-5015</u>	
C C B	2.	CLASSIFICATION:	DISPOSITION:	WHEN TO IMPLEMENT CHANGE:	IS AN ATP REQUIRED
	☐ I ☒ II	☒ Approve ☐ Approve/Modify	☒ Upon completion of change	☒ Yes	
	☐ Reject ☐ Cancel	☐ Prepare change and wait for approval	☐ No		
	☐ Defer	☐ At next mandatory change			
	APPROVAL:	<u>G. B. [Signature]</u> Date: <u>4.6.93</u>			
	TRG ¹ /CCB ²	<u>H. F. [Signature]</u> Date: <u>4.6.93</u>			
		<u>Antone [Signature]</u> Date: <u>4.6.93</u>			
	ASSIGNED TO:	<u>LANC</u>	Phone No.: _____		
	INFORM PROCEDURE WRITERS:	☐ Per Telecon Date: <u>1.1</u>			
3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None				
	CHANGE COMPLETED BY: <u>J. Martin</u> Date: <u>4.11.93</u> Phone No.: <u>548-5015</u>				
4.	CHANGE VERIFIED BY: <u>[Signature]</u> Date: <u>8.11.93</u> Phone No.: <u>3-1228</u>				

HYDROGEN MITIGATION TEST PROJECT

Change Request

ORIGINALCR No.: 154Sheet 1 of 1

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS SOFTWARE</u>			
	VERSION/REVISION: _____				
	CR TYPE: ☐ DEVELOPMENT ☒ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER				
	DESCRIPTION OF CHANGE: ☐ See Attached <u>Activate Alarm for MIP0001 MIP0001.</u>				
	JUSTIFICATION FOR CHANGE: ☐ See Attached <u>Alarm should be active (priority 1)</u>				
HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:					
☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel List ☒ DACS Software ☐ Other _____					
PRIORITY: ☐ 1 ☒ 2 ☐ 3 1=Mandatory 2=important 3=Nice to have					
ORIGINATOR: <u>[Signature]</u>		Date: <u>4/11/93</u> Phone No.: <u>546-5015</u>			
C C B	2.	CLASSIFICATION:	DISPOSITION:	WHEN TO IMPLEMENT CHANGE:	IS AN ATP REQUIRED
	☐ I ☒ II	☒ Approve ☐ Approve/Modify	☒ Upon completion of change	☒ Yes	
		☐ Reject ☐ Cancel	☐ Prepare change and wait for approval	☐ No	
		☐ Defer	☐ At next mandatory change		
	APPROVAL:	<u>[Signature]</u>	Date: <u>4/6/93</u>		
TRG ¹ /CCB ²	<u>G.F. Vargo</u>	Date: <u>4/6/93</u>			
	<u>[Signature]</u>	Date: <u>4/6/93</u>			
ASSIGNED TO: <u>LANC</u>		Phone No.: _____			
INFORM PROCEDURE WRITERS:		☐ Per Telecon Date: <u>1/1</u>			
3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None				
	CHANGE COMPLETED BY: <u>[Signature]</u> Date: <u>4/11/93</u> Phone No. <u>546-5015</u>				
4.	CHANGE VERIFIED BY: <u>[Signature]</u> Date: <u>8/11/93</u> Phone No. <u>3-1778</u>				

HYDROGEN MITIGATION TEST PROJECT

Change Request

ORIGINAL

CR No.: 155

Sheet 1 of 1

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS SOFTWARE</u>	
	VERSION/REVISION: _____		
	CR TYPE: ☐ DEVELOPMENT ☐ CORRECT PROBLEM ☒ ENHANCEMENT ☐ OTHER		
	DESCRIPTION OF CHANGE: ☐ See Attached <u>ADD A SCREEN CALLED ROLLOVER. THIS SCREEN TO DISPLAY TREND DATA FOR MIT TEMP, H2, TANK PRESS, SURFACE LEVEL, AND FLO VENT FLOW.</u>		
	JUSTIFICATION FOR CHANGE: ☐ See Attached <u>SCREEN WILL PROVIDE VISUAL INDICATION OF TANK TRENDS THAT CAN INDICATE AN IMMINENT ROLLOVER</u>		
HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:			
☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel List ☒ DACS Software ☐ Other _____			
PRIORITY: <u>[3]</u> 1=Mandatory 2=Important 3=Nice to have			
ORIGINATOR: <u>T. Carey</u> Date: <u>4, 1, 93</u> Phone No.: <u>3-1779</u>			

C C B	2.	CLASSIFICATION:	DISPOSITION:	WHEN TO IMPLEMENT CHANGE:	IS AN ATP REQUIRED
	☐ I ☒ II	☒ Approve ☐ Approve/Modify	☒ Upon completion of change	☐ Yes	
		☐ Reject ☐ Cancel	☐ Prepare change and wait for approval	☒ No	
		☐ Defer	☐ At next mandatory change		
	APPROVAL:				
	TRG ¹ /CCB ²	<u>G. F. Varco</u>	Date: <u>4, 6, 93</u>		
		<u>Antony Williams</u>	Date: <u>4, 6, 93</u>		
ASSIGNED TO: <u>JEFF MARTIN</u>		Phone No.: _____			
INFORM PROCEDURE WRITERS:		☐ Per Telecon Date: <u>1, 1</u>			

3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None <u>ADDED BLOCK FOR FUTURE MIT. MIT WILL HAVE TO BE LINKED V17.4</u>
CHANGE COMPLETED BY:	<u>J. Martin</u> Date: <u>4, 1, 93</u> Phone No.: _____

4.	CHANGE VERIFIED BY: <u>T. Carey</u> Date: <u>4, 1, 93</u> Phone No.: <u>3-1779</u>
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HYDROGEN MITIGATION TEST PROJECT

Change Request

ORIGINAL

CR No.: 156

Sheet 1 of 2

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS SOFTWARE (SCREENS)</u>			
	VERSION/REVISION: _____				
	CR TYPE: ☐ DEVELOPMENT ☐ CORRECT PROBLEM ☒ ENHANCEMENT ☐ OTHER				
	DESCRIPTION OF CHANGE: ☒ See Attached <u>CHANGE SCREEN ROLLOVER PER ATTACHED</u>				
	JUSTIFICATION FOR CHANGE: ☐ See Attached <u>ENHANCEMENT. NO IMPACT TO STRATEGY</u>				
C C B	HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:				
	☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel List ☒ DACS Software ☐ Other _____				
	PRIORITY: [2] 1=Mandatory 2=Important 3=Nice to have				
	ORIGINATOR: <u>T. LANEY</u>		Date: <u>4, 5, 93</u> Phone No.: <u>3-1779</u>		
	2. CLASSIFICATION: DISPOSITION: WHEN TO IMPLEMENT CHANGE: IS AN ATP REQUIRED				
☐ I ☐ II		☐ Approve ☐ Approve/Modify ☐ Upon completion of change ☐ Yes			
☐ Reject ☐ Cancel		☐ Prepare change and wait for approval ☒ No			
☐ Defer		☐ At next mandatory change			
APPROVAL:		Date: <u>4, 6, 93</u>			
TRG ¹ /CCB ²		Date: <u>4, 6, 93</u>			
<u>G. F. Varadi</u>		Date: <u>4, 6, 93</u>			
<u>Antony G. Villalobos</u>		Date: <u>4, 6, 93</u>			
ASSIGNED TO: _____		Phone No.: _____			
INFORM PROCEDURE WRITERS: _____		[] Per Telecon Date: <u>1, 1</u>			
3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None				
	CHANGE COMPLETED BY: <u>J. Caves</u> Date: <u>4, 27, 93</u> Phone No. <u>6-0126</u>				
4.	CHANGE VERIFIED BY: <u>M. J. Egan</u> Date: <u>7, 7, 93</u> Phone No. <u>3-4077</u>				

HYDROGEN MITIGATION TEST PROJECT

Change Request (Continuation Sheet)

ORIGINAL

CR No.: 156

Sheet 2 of 2

☒ Description ☐ Justification ☐ Change Comments

1. DELETE PLOTS FOR PIR17BØ4, NITJ5Y06, NITKSY06, NERØ5AØ1, AND FTE50002.
2. ADD TAG CURRENT VALVE LINK AND HAVE TAG NAME AND VALVE TURN RED AT ALARM
3. CHANGE TREND TIME TO 30 SEC.
4. CHANGE ALARM LINE TO YELLOW
- ~~5. CHANGE PLOTTED TAG COLOR TO LIGHT CYAN.~~
58. CHANGE NON PLOTTED TAGS TO WHITE
6. ADD 80 - 140 TEMP LIMIT TO MIT

Signature: _____

Date: / /

HYDROGEN MITIGATION TEST PROJECT

Change Request

ORIGINAL CR No.: 157

Canceled 4.24.93

Sheet 1 of 1

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS SOFTWARE</u>			
	VERSION/REVISION: _____				
	CR TYPE: ☐ DEVELOPMENT ☒ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER				
	DESCRIPTION OF CHANGE: ☐ See Attached EITHER SEVER FUNCTION OR REMOVE <u>ENABLE</u> & <u>DISABLE</u> BUTTONS FROM WARROOM MANABOT SCREEN THAT PERTAIN TO TAGS NRR17801 AND NIR17801				
C C B		JUSTIFICATION FOR CHANGE: ☐ See Attached CURRENT SETUP IS UNACCEPTABLE. PUMP INSTALLATION TAGS CAN BE TURNED ON AND OFF IN WARROOM WITH "Ø" CLEARANCE			
		HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE: ☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel Unit ☒ DACS Software ☐ Other _____			
		PRIORITY: ☒ 1 ☐ 2 ☐ 3 1=Mandatory 2=Important 3=Nice to have			
		ORIGINATOR: <u>T. LANEY</u> Date: <u>4.5.93</u> Phone No.: <u>3-1779</u>			
	2.	CLASSIFICATION: ☐ 1 ☒ 2	DISPOSITION: ☒ Approve ☐ Approve/Modify ☐ Reject ☒ Cancel ☐ Defer	WHEN TO IMPLEMENT CHANGE: ☒ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change	IS AN ATP REQUIRED ☐ Yes ☒ No
		APPROVAL: TRG ¹ /CCB ²	<u>G. Bean</u> <u>G.F. Vargo</u> <u>1/1/93</u>		Date: <u>4.5.93</u> Date: <u>4.6.93</u> Date: <u>4.7.93</u>
		ASSIGNED TO:	Phone No.:		
		INFORM PROCEDURE WRITERS:	☐ Per Telecon Date: <u>1/1</u>		
	3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None			
		CHANGE COMPLETED BY: <u>[Signature]</u> Date: <u>4/24/93</u> Phone No.:			
	4.	CHANGE VERIFIED BY: _____ Date: _____			

HYDROGEN MITIGATION TEST PROJECT

Change Request

ORIGINAL

CR No.: 158

Sheet 1 of

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS SCREENS</u>		
		VERSION/REVISION: _____		
		CR TYPE: ☐ DEVELOPMENT ☒ CORRECT PROBLEM ☒ ENHANCEMENT ☐ OTHER		
		DESCRIPTION OF CHANGE: ☐ See Attached 1. ADD ROLLOVER BUTTON + LINK TO "GASSUM". 2. ADD ROLLOVER BUTTON + LINK TO "SUMMARY". 3. FIX MAP BUTTON ON IOSTATUS SCREEN. 4. FIX CURSOR AND VARIOUS BUTTONS ON SCREEN HTSELIYA. No longer exists MZE 9/7/93		
	JUSTIFICATION FOR CHANGE: ☐ See Attached ENHANCEMENT & MISCELLANEOUS PROBLEMS			
	HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE: ☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel List ☒ DACS Software ☐ Other _____			
	PRIORITY: ☐ 1 = Mandatory 2 = Important 3 = Nice to have			
	ORIGINATOR: <u>T. LANEY</u> Date: <u>4.5.93</u> Phone No.: <u>3-1779</u>			
C C B	2.	CLASSIFICATION:	DISPOSITION:	WHEN TO IMPLEMENT CHANGE:
		☐ I ☒ II	☒ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel ☐ Defer	☒ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change
		IS AN ATP REQUIRED		☐ Yes ☒ No
		APPROVAL: TRG ¹ /CCB ² <div style="display: flex; justify-content: space-between;"> <div> <u>J. Bear</u> <u>A.F. Vargo</u> <u>Antonio Villalobos</u> </div> <div> Date: <u>4.16.93</u> Date: <u>4.16.93</u> Date: <u>4.16.93</u> </div> </div>		
	ASSIGNED TO: <u>MENDOZA</u> Phone No.: _____			
	INFORM PROCEDURE WRITERS: ☐ Per Telecon Date: <u>1/1</u>			
	3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None		
		CHANGE COMPLETED BY: <u>T. Laney</u> Date: <u>4.28.93</u> Phone No.: <u>6-0126</u>		
	4.	CHANGE VERIFIED BY: <u>MZE</u> Date: <u>9.7.93</u> Phone No.: <u>3-4077</u>		

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 159

Sheet 1 of 4

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS Software.</u>			
	VERSION/REVISION: _____				
	CR TYPE: ☐ DEVELOPMENT ☐ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER				
	JUSTIFICATION DESCRIPTION OF CHANGE: ☐ See Attached "Minimum Instrument Report" and "Hydrogen and Ventilation Report" printouts for DACS tag PIR17B04, PIR11B01 incorrect.				
C C B	DESCRIPTION JUSTIFICATION FOR CHANGE: ☐ See Attached Change tag names for PIR17B04 and PIR11B01 to <u>MIT Tank Dome Pressure</u> and <u>Tank Dome Pressure Riser 11B</u> Change units for PIR17B04 and PIR11B01 to <u>INWG</u>				
	HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:				
	☐ PDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ VO Channel List ☒ DACS Software ☐ Other <u>Screen Reports</u>				
	PRIORITY: ☐ 1 = Mandatory 2 = Important 3 = Nice to have ORIGINATOR: <u>[Signature]</u> Date: <u>4/6/93</u> Phone No.: <u>31729</u>				
C C B	2.	CLASSIFICATION:	DISPOSITION:	WHEN TO IMPLEMENT CHANGE:	IS AN ATP REQUIRED
	☐ 1 ☒ 2 ☐ 3		☒ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel ☐ Defer	☒ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change	☐ Yes ☒ No
	APPROVAL:		Date: <u>4/6/93</u> Date: <u>4/6/93</u> Date: <u>4/7/93</u>		
	TAG ¹ /CCB ²		Date: <u>4/6/93</u> Date: <u>4/7/93</u>		
C C B	ASSIGNED TO: <u>JEFF</u>		Phone No.: _____		
	INFORM PROCEDURE WRITERS:		☐ Per Telecon Date: <u>1/1</u>		
C C B	3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None			
	CHANGE COMPLETED BY: <u>[Signature]</u> Date: <u>4/14/93</u> Phone No.: _____				
C C B	4.	CHANGE VERIFIED BY: <u>[Signature]</u> Date: <u>4/24/93</u> Phone No.: _____			
	WHC-SD-WM-CMD-002 Rev. 0 Page 94				

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HYDROGEN AND VENTILATION REPORT Apr 05/93

18:47:10	NITKSY11	15.332031	PPM	0-100 PPM VENT HDR SHMS2
18:47:10	NIRO5A02	23.925781	PPM	0-100 PPM RISER 5A SHMS3
18:47:10	NIR17B02	46.582031	PPM	0-100 PPM RISER 17B GMS1
18:47:10	NITJSY11	100.000000	PPM	0-100 PPM RISER 16A SHMS1
18:47:10	NIRO5A03	5.859375	PPM	0-2000 PPM RISER 5A SHMS3
18:47:10	NIR17B03	0.000000	PPM	0-2000 PPM RISER 17A GMS1
18:47:10	NITJSY12	0.000000	PPM	0-2000 PPM RISER 16A SHMS1
18:47:10	NIRO5A01	0.000000	%	0-10% RISER 5A SHMS3
18:47:11	NIR17B01	0.000000	%	0-10% RISER 17B GMS1
18:47:11	NITJSY06	0.009766	%	0-10% RISER 16A SHMS1
18:47:11	NITHDR01	0.444336	%	0-10% VENT HDR CHESSEL
18:47:11	NITKSY06	0.056152	%	0-10% VENT HDR SHMS2
18:47:11	FTE50001	566.839600	CFM	VENTILATION FLOW-VENT HEADER
18:47:11	FTE50002	564.471924	CFM	VENTILATION FLOW-VENT HEADER
18:47:11	PIR11B01	-2.515625	CFM	VENTILATION FLOW-VENT HEADER
18:47:11	PIR17B04	-2.399902	CFM	VENTILATION FLOW-VENT HEADER
18:47:11	LIR13A01	407.430176	IN	RADAR TANK LEVEL
18:47:11	WST1	64.431641	DEG F	AMBIENT AIR TEMPERATURE
18:47:11	TT10001	78.125000	DEG F	VENT HEADER TEMPERATURE
18:47:11	MT10001	0.000000	% RH	VENT HEADER RELATIVE HUMIDITY

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MINIMUM INSTRUMENTATION REPORT Apr 05/93

VENT FLOW RATE

18:47:01 FTE50001 564.038086 CFM
18:47:01 FTE50002 568.540771 CFM

VENT FLOW RATE
VENT FLOW RATE

HYDROGEN CONCENTRATION

18:47:01 NIR05A01 0.000000 %
18:47:01 NIR17B01 0.000000 %
18:47:01 NITJSY06 0.007324 %
18:47:01 NITKSY06 0.056152 %
18:47:01 GC3-H2 13.000000 PPM
18:47:01 MS-H2 0.000000 %

0-10% RISER 5A SHMS3
0-1% RISER 17B GMS1
0-10% RISER 16A SHMS1
0-10% VENT HDR SHMS2
GC3 - HYDROGEN CONCENTRATION
MASS SPEC H2 PARTIAL PRESS

PUMP MOTOR

18:47:01 VR232050 0.000000 RPM
18:47:01 VR232040 0.000000 AMPS
18:47:01 MIP00001 0 1=Y/0=N
18:47:01 TIR12A01 32.000000 DEG F
18:47:01 TIR12A02 32.000000 DEG F

PUMP MOTOR SPEED
PUMP MOTOR CURRENT
PUMP MOTOR MOISTURE
PUMP MOTOR TEMPERATURE
PUMP MOTOR TEMPERATURE

PUMP COLUMN

18:47:01 ZIMPE142 0.000000 PSI
18:47:01 ZIMPE112 0.000000 DEG
18:47:01 PIPNO101 0.000000 PSI
18:47:01 PIPNO102 0.000000 PSI
18:47:01 PIPNO201 0.000000 PSI
18:47:01 PIPNO202 0.000000 PSI
18:47:01 TIPNO101 32.000000 DEG F
18:47:01 TIPNO202 32.000000 DEG F
18:47:01 PCR12A01 1200.293335 PSID

PUMP COLUMN GAS PRESSURE
PUMP COLUMN ORIENTATION
PUMP DISCHARGE PRESSURE
PUMP DISCHARGE PRESSURE
PUMP DOWNCOMER PRESSURE
PUMP DOWNCOMER PRESSURE
NOZZLE DISCHARGE TEMPERATURE
NOZZLE DISCHARGE TEMPERATURE
MIX PUMP PRESS MINUS BASELINE

PUMP COLUMN STRAIN

18:47:01 WIR12A01 -0.333984 UIN/IN
18:47:01 WIR12A02 -0.333984 UIN/IN
18:47:01 WIR12A03 -0.667969 UIN/IN
18:47:01 WIR12A04 -0.667969 UIN/IN

PUMP COLUMN STRAIN 0 DEG
PUMP COLUMN STRAIN 90 DEG
PUMP COLUMN STRAIN 180 DEG
PUMP COLUMN STRAIN 270 DEG

DOMES SPACE TEMPERATURE

18:47:01 TT10001 78.178711 DEG F

VENT HEADER TEMPERATURE

WASTE LEVEL

18:47:01 LIR13A01 407.430176 IN

WASTE TANK LEVEL RADAR GAUGE

MISCELLANEOUS

18:47:01 WST1 64.343750 DEG F
18:47:01 PIR17B04 -2.406006 PSI
18:47:01 PIR11B01 -2.520508 PSI

AMBIENT AIR TEMPERATURE
TANK DOME PRESSURE
TANK DOME PRESSURE

MIT STRAIN

18:47:01 WIR17B01 -12.837891 UIN/IN
18:47:01 WIR17B02 -96.087891 UIN/IN

STRAIN GAUGE 17B-1 AT 0 DEG
STRAIN GAUGE 17B-2 AT 90 DEG

VDTT STRAIN

18:47:01 WIR14A01 -46.999512 UIN/IN
18:47:01 WIR14A02 -100.265625 UIN/IN
18:47:01 WIR14A03 -533.705566 UIN/IN
18:47:01 WIR1BA01 82.510254 UIN/IN
18:47:01 WIR1BA02 1.044434 UIN/IN
18:47:01 WIR1BA03 -28.199707 UIN/IN

STRAIN GAUGE 14A-1 AT 0 DEG
STRAIN GAUGE 14A-2 AT 120 DEG
STRAIN GAUGE 14A-3 AT 240 DEG
STRAIN GAUGE 1B-1 AT 0 DEG
STRAIN GAUGE 1B-2 AT 120 DEG
STRAIN GAUGE 1B-3 AT 240 DEG

WASTE TEMPERATURES

GROUP I

18:47:01 TIR17B01 111.911011 DEG F
18:47:01 TIR17B02 114.047241 DEG F

WASTE TEMP MIT 0-50 IN
WASTE TEMP MIT 0-50 IN

18:47:01	TIR17B04	121.524043	DEG F	WASTE TEMP MIT 50-100 IN
18:47:01	TIR17B05	124.270630	DEG F	WASTE TEMP MIT 50-100 IN
18:47:01	TIR17B06	125.415039	DEG F	WASTE TEMP MIT 50-100 IN
GROUP III				
18:47:01	TIR17B07	125.796509	DEG F	WASTE TEMP MIT 100-150 IN
18:47:01	TIR17B08	125.415039	DEG F	WASTE TEMP MIT 100-150 IN
18:47:01	TIR17B09	123.355103	DEG F	WASTE TEMP MIT 100-150 IN
GROUP IV				
18:47:01	TIR17B10	121.142578	DEG F	WASTE TEMP MIT 150-200 IN
18:47:01	TIR17B11	119.540405	DEG F	WASTE TEMP MIT 150-200 IN
GROUP V				
18:47:01	TIR17B12	118.243408	DEG F	WASTE TEMP MIT 200-250 IN
18:47:02	TIR17B13	117.022705	DEG F	WASTE TEMP MIT 200-250 IN
18:47:02	TIR17B14	115.344238	DEG F	WASTE TEMP MIT 200-250 IN
18:47:02	TIR17B15	111.911011	DEG F	WASTE TEMP MIT 200-250 IN
GROUP VI				
18:47:02	TIR17B16	109.240723	DEG F	WASTE TEMP MIT 250-300 IN
18:47:02	TIR17B17	110.461426	DEG F	WASTE TEMP MIT 250-300 IN
GROUP VII				
18:47:02	TIR17B18	110.232544	DEG F	WASTE TEMP MIT 300-350 IN
18:47:02	TIR17B19	110.614014	DEG F	WASTE TEMP MIT 300-350 IN
GROUP VIII				
18:47:02	TIR17B20	108.630371	DEG F	WASTE TEMP MIT 350-402 IN
18:47:02	TIR17B21	102.374268	DEG F	WASTE TEMP MIT 350-402 IN
18:47:02	TIR17B22	91.006470	DEG F	WASTE TEMP MIT 350-402 IN

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HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 160Sheet 1 of 1

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>VDTT screens + archive rate</u>			
	VERSION/REVISION: _____				
	CR TYPE: ☐ DEVELOPMENT ☐ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER				
	DESCRIPTION OF CHANGE: ☐ See Attached <u>Change VDTT archive rate from 12 seconds to 150 seconds (2.5 min.). Remove screens from map (ITR14A, ITR1B); leave screens in directory (SUMMARY, TMPPRFL, TEMPALM).</u>				
C C B	JUSTIFICATION FOR CHANGE: ☐ See Attached <u>The instrument trees are failing and are no longer considered reliable. Less frequent archive rate is adequate + lessens load on system.</u>				
	HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE: ☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ VO Channel List ☐ DACS Software ☐ Other _____				
	PRIORITY: <u>[2]</u> 1 = Mandatory 2 = Important 3 = Nice to have				
	ORIGINATOR: <u>Jeanne A. Schelt</u> Date: <u>4/16/93</u> Phone No.: <u>373-3296</u>				
C C B	2.	CLASSIFICATION:	DISPOSITION:	WHEN TO IMPLEMENT CHANGE:	IS AN ATP REQUIRED
	☐ ☒		☒ Approve ☐ Approve/Modify	☒ Upon completion of change	☐ Yes
			☐ Reject ☐ Cancel	☐ Prepare change and wait for approval	☒ No
			☐ Defer	☐ At next mandatory change	
C C B	APPROVAL:		Date: <u>4/16/93</u>		
	TRG ¹ /CCB ²		Date: <u>4/6/93</u>		
	<u>S. Bear</u>		Date: <u>4/7/93</u>		
	<u>G.F. Vargos</u>				
C C B	ASSIGNED TO: <u>MENDOZA</u>		Phone No.: _____		
	INFORM PROCEDURE WRITERS:		☐ Per Telecom Date: <u>1/1</u>		
	3. COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None				
	CHANGE COMPLETED BY: <u>J. Miller</u> Date: <u>4/24/93</u> Phone No.: _____				
C C B	4. CHANGE VERIFIED BY: <u>J. Lamy</u> Date: <u>4/21/93</u> Phone No.: _____				

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 16

Sheet 1 of 1

O R I G I N A T O R	1. HARDWARE/SOFTWARE/DOCUMENT NAME: <u>Strategy change to Archive Strain Values</u>
	VERSION/REVISION: _____
	CR TYPE: ☒ DEVELOPMENT ☐ CORRECT PROBLEM ☒ ENHANCEMENT ☐ OTHER
	DESCRIPTION OF CHANGE: ☐ See Attached <u>Archive strain gauge values (low frequency), in file called STRN.PRN; Archive rate 150 sec (2.5 min)</u>
	JUSTIFICATION FOR CHANGE: ☐ See Attached <u>These values currently are going to DACs, but are not archived. This information will be helpful in analysis of strain gauges.</u>
HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE: ☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ ACP ☐ ARP ☒ I/O Channel Unit ☒ DACS Software ☐ Other _____	
PRIORITY: <u>[2]</u> 1=Mandatory 2=Important 3=Nice to have	
ORIGINATOR: <u>Jeannette Lichelt</u> Date: <u>4.6.93</u> Phone No.: <u>373-3296</u>	

C C B	2. CLASSIFICATION: ☐ I ☒ II	DISPOSITION: ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel ☐ Defer	WHEN TO IMPLEMENT CHANGE: ☒ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change	IS AN ATP REQUIRED: ☐ Yes ☒ No
	APPROVAL:	Date: <u>4.6.93</u>		
	TRG ¹ /CCS ²	Date: <u>4.6.93</u>		
	Date: <u>4.7.93</u>			
	ASSIGNED TO: <u>JEFF MARTIN (LANL)</u> Phone No.: _____			
INFORM PROCEDURE WRITERS: ☐ Per Telecon Date: <u>1/1</u>				

3. COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None
CHANGE COMPLETED BY: <u>J. Lichelt</u> Date: <u>4.7.93</u> Phone No. _____
4. CHANGE VERIFIED BY: <u>D. Lacey</u> Date: <u>4.24.93</u> Phone No. _____

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 162

Sheet 1 of 1

Canceled 4-29-93

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>Template to check Minimum Instrument List Alarms.</u>			
	VERSION/REVISION: _____				
	CR TYPE: ☐ DEVELOPMENT ☐ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER				
	DESCRIPTION OF CHANGE: ☐ See Attached <u>Provide ability to check values of Minimum Instrument List Alarms using DACS template.</u>				
	JUSTIFICATION FOR CHANGE: ☐ See Attached <u>To ensure that alarm setpoints are not correct prior to starting pump for Minimum Instrument List instruments.</u>				
HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:					
☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel List ☒ DACS Software ☐ Other _____					
PRIORITY: ☐ 1=Mandatory 2=Important 3=Nice to have					
ORIGINATOR: <u>[Signature]</u>		Date: <u>4/6/93</u> Phone No.: <u>3-1779</u>			
C C B	2.	CLASSIFICATION: ☐ ☒	DISPOSITION: ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel ☐ Defer	WHEN TO IMPLEMENT CHANGE: ☒ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change	IS AN ATP REQUIRED: ☐ Yes ☒ No
	APPROVAL: TRG ¹ /CCB ²		<u>[Signature]</u> for G. DEAC		Date: <u>4/6/93</u>
			<u>G.F. Vargo Jr.</u>		Date: <u>4/6/93</u>
			<u>Arthur Dillalabs</u>		Date: <u>4/6/93</u>
	ASSIGNED TO: <u>JEFF MARIN</u>		Phone No.: _____		
INFORM PROCEDURE WRITERS: _____		☐ Per Telecon Date: <u>1/1</u>			
3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None				
CHANGE COMPLETED BY: _____ Date: ____/____/____ Phone No. _____					
4.	CHANGE VERIFIED BY: _____ Date: ____/____/____ Phone No. _____				

HYDROGEN MITIGATION TEST PROJECT

Change Request

ORIGINAL

CR No.:

Sheet 1 of

2

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS Screens</u>		
		VERSION/REVISION: _____		
		CR TYPE: ☐ DEVELOPMENT ☐ CORRECT PROBLEM ☒ ENHANCEMENT ☐ OTHER		
		DESCRIPTION OF CHANGE: ☒ See Attached		
	Change/add/delete various screens per attached.			
	JUSTIFICATION FOR CHANGE: ☐ See Attached			
	1. History screens are not used in the War Room from the RSS station and the Test Engineers have access to the files via other methods. 2. Screen titles are hard to decipher. 3. Further standardization. 4. VDTT's are not used for alarm and control and have limited use for analysis. TL. STRAIN'S ARE USED BUT CAN BE FOUND ON STCNALM.			
	HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:			
	☐ FDC ☐ ATP ☐ SDD ☒ Phase A TP ☐ Phase B TP ☒ AOP ☒ ARP ☒ I/O Channel List ☒ DACS Software ☐ Other _____			
	PRIORITY: <u>2</u> 1=Mandatory 2=Important 3=Nice to have			
	ORIGINATOR: <u>T. Carey</u>		Date: <u>4/12/93</u> Phone No.: <u>3-1778</u>	
C C B	2.	CLASSIFICATION:	DISPOSITION:	WHEN TO IMPLEMENT CHANGE:
		☐ I ☒ II	☒ Approve ☐ Approve/Modify	☒ Upon completion of change
			☐ Reject ☐ Cancel	☐ Prepare change and wait for approval
			☐ Defer	☐ At next mandatory change
	APPROVAL:		IS AN ATP REQUIRED	
	TRG ¹ /CCB ²		☒ Yes	
	<u>[Signature]</u>		☐ No	
	<u>[Signature]</u>			
	<u>[Signature]</u>			
	ASSIGNED TO: <u>R. MENDOZA / M. E. BART</u>		Phone No.:	
	INFORM PROCEDURE WRITERS: <u>[Signature]</u>		☐ Per Telecon Date: <u>4/13/93</u>	
	3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None		
	CHANGE COMPLETED BY: <u>T. Carey</u> Date: <u>4/27/93</u> Phone No. <u>6-0126</u>			
	4.	CHANGE VERIFIED BY: <u>M. E. BART</u> Date: <u>4/7/93</u> Phone No. <u>3-4077</u>		

HYDROGEN MITIGATION TEST PROJECT

Change Request (Continuation Sheet)

ORIGINAL

CR No.: 159

Sheet 2 of 2

X Description [] Justification [] Change Comments

1. Delete History Screens (HT...) from ASMAIN.

2. Change screen names:

From: To:

RTTSELWH	WHIT H2
RTTSELHH	MOSH2HI
RTTSELLH	MOSH2LOW
RTTDP	DOMEPRES
RTTSE174	MIT17BT1
RTTSE178	MIT17BT2
RTTST12A	PUMPSTRN
GRMPF	PUMPFLOW
GRMP	PUMPPRES
RTTSLG	-SLUDGE- <i>new screen 2 m3c 9/1/93</i>
RTTVH	VENTFLOW
RTTSP	PUMPSPD
RTTVIB	PUMPVIB
RTTFLVEL	FLUIDVEL
RTTMS	MSPECPRS
RTTMSAS	MSPEAIR <i>now deleted m3c 9/7/93</i>
RTTOT	PUMPOILT
MPR12A	PUMP
ITR17B	MIT 17B
MPSMR12A	SLUDGE <i>now SLUDGE 1 m3c 9/7/93</i>
RTTSEL1A	ASMAIN

3. Add screens:

From MSMAIN:

MIT 17C (For new MIT)

From ASMAIN:

MIT17BT3 (Thermocouples 9-12)
 MIT17BT4 (Thermocouples 13-16)
 MIT17BT5 (Thermocouples 17-20)
 MIT17BT6 (Thermocouples 21 and 22)
 PUMPOPS (Combines various pump trend screens)

4. Change WELCOME screen from MAP and MAP screen per attached.

5. Remove VDTT's (ITR14A and ITR1B) from the MAP, TEMPALM, and SUMMARY screens.
Retain access via MSMAIN screen for individual use.*STRAINS ARE USED FOR ALARM + ABORT*Signature: *[Signature]*

Date: 9/12/93

HYDROGEN MITIGATION TEST PROJECT

Change Request

ORIGINAL

CR No.:

164
160

Sheet 1 of

2

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS Software</u>		
	VERSION/REVISION: _____			
	CR TYPE: ☐ DEVELOPMENT ☐ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER			
	DESCRIPTION OF CHANGE: ☐ See Attached Add DACS tag FTE50003 to the DACS I/O Channel List, ATP and Software for "ST Tank Farm Exhaust Flow", off of I/O 8, Modicon module 875, Terminal Strip Drop 16, Slot 6, Mod 3 16, 1, 6, 3			
C C B	JUSTIFICATION FOR CHANGE: ☐ See Attached To add instrument signal for Hydrogen Mitigation Testig. Originally needed to computer generate a signal with the signal from 10-50 Tank Flow to ensure combined minimum flow from 102-1055T is at least 4/3 flow from 101-5T.			
	HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:			
	☐ FDC ☒ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☒ I/O Channel List ☒ DACS Software ☐ Other _____			
	PRIORITY: ☐ 1=Mandatory 2=Important 3=Nice to have ORIGINATOR: <u>[Signature]</u> Date: <u>4, 12, 93</u> Phone No.: <u>3-1779</u>			
C C B	2.	CLASSIFICATION:	DISPOSITION:	WHEN TO IMPLEMENT CHANGE:
	☐ ☒ ☐ ☐		☒ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel ☐ Defer	☒ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change
	IS AN ATP REQUIRED		☒ Yes ☐ No	
	APPROVAL: <u>J. Carver</u> TRG/CCB ² <u>[Signature]</u> <u>H. A. Vay</u>		Date: <u>4, 13, 93</u> Date: <u>4, 13, 93</u> Date: <u>4, 13, 93</u>	
	ASSIGNED TO: <u>J. MARTIN / [Signature]</u>		Phone No.: _____	
	INFORM PROCEDURE WRITERS: <u>[Signature]</u>		☐ Per Telecon Date: <u>4, 13, 93</u>	
	3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None		
	CHANGE COMPLETED BY: <u>[Signature]</u> Date: <u>4, 24, 93</u> Phone No.: _____			
	4.	CHANGE VERIFIED BY: <u>[Signature]</u> Date: <u>4, 14, 93</u>		

CR 164

2/2

From: Gregory J Gauck at ~WHC82 4/12/93 8:27AM (2255 bytes: 51 ln)
Raymond B Mailhot Jr at ~WHC224, Alvin C (Zeke) Zuehlke at ~KEH10,
Mendoza at ~WHC15, Gregory J Gauck
DACS I/O Assignment for the Vent Flow Monitor

----- Message Contents -----

Ruben,

The DACS tag designation I gave to Zeke for the total exhaust flow is FTE50003. He needs this information for the ATP.

If you assigned another DACS tag, please send out a CC:Mail message to Zeke, Ray, and myself THANKS. I will submit a Change Request for DACS tag FTE50003. We still need to completely fill out the remaining blocks for the tag in the I/O Channel List.

Ruben -

George Vargo has asked me to list the assignment of I/O space for the Vent Flow Monitor, so that you may write out this assignment to a DACS tag No.

This signal is brought to I/O #8, TERMINAL STRIP DROP 16, SLOT 6, MOD 3. This is a Modicon Module 875 input and we are monitoring the total SY Tank ventilation flow with element K1 FE-1-1. The K1 designates the SY tank ventilation where K2 is the annulus ventilation.

Would you please call me back with the DACS tag No. or for any questions.

Thank-you!

- Ray Mailhot (6-1492)

Ruben:

The range is 0-12/4 CFM for a 4 20 ma input signal.

George

Ray,

'Zeke' Zuehlke, Test Engineering's ATP "god", has requested the identification of the terminals which will be used to input test signals for the total exhaust air flow instrument installed out in the field. This will enable it to be acceptance tested prior to official use.

He can be reached in the DACS trailer at 3-4250 during regular business hours.

Thanks,

Greg Gauck (3-1779)

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.:

Sheet 1 of

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O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS Software / Screens.</u>		
	VERSION/REVISION: _____			
	CR TYPE: ☒ DEVELOPMENT ☐ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER			
	DESCRIPTION OF CHANGE: ☐ See Attached Add information associated with MIT #2 to DACS Screens and Channel List. Instruments include 22 Thermocouples and 2 Strain Gauges. TEST ENGINEERING will provide write documentation for Thermocouples and Jim Busse will write write ATP for Strain Gauges. No alarms or aborts will be provided.			
	JUSTIFICATION FOR CHANGE: ☐ See Attached To provide for timely installation of TIR17CO1 - 22 temperature display and MIT as needed. WIR17CO1 - 2 display			
C C B	HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE: ☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ VO Channel List ☐ DACS Software ☐ Other _____			
	PRIORITY: [] 1=Mandatory 2=Important 3=Nice to have			
	ORIGINATOR: <u>[Signature]</u> Date: <u>4/12/93</u> Phone No.: <u>3-1779.</u>			
	2. CLASSIFICATION: ☒ I ☐ II ☐ III			
	DISPOSITION: ☒ Approve ☐ Approver/Modify ☐ Reject ☐ Cancel ☐ Defer			
WHEN TO IMPLEMENT CHANGE: ☒ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change				
IS AN ATP REQUIRED: ☐ Yes ☒ No				
APPROVAL: <u>[Signature]</u> Date: <u>4/13/93</u>				
TRG ¹ /CCB ² <u>[Signature]</u> Date: <u>4/13/93</u>				
ASSIGNED TO: <u>R. MENDOZA / M. ELGHART</u> Phone No.: _____				
INFORM PROCEDURE WRITERS: <u>[Signature]</u> ☐ Per Telecon Date: <u>4/13/93</u>				
3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None			
	Add to Channel List.			
CHANGE COMPLETED BY: <u>[Signature]</u> Date: <u>4/13/93</u> Phone No.: _____				
4.	CHANGE VERIFIED BY: <u>[Signature]</u> Date: <u>4/13/93</u> Phone No.: _____			

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.:

166
162

Sheet 1 of 3

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>FIC and Radar Level Gauges.</u>				
	VERSION/REVISION: _____					
	CR TYPE: ☐ DEVELOPMENT ☒ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER					
	DESCRIPTION OF CHANGE: ☐ See Attached Replace Remove alarms and abort setpoints associated with the Radar Gauge LIR13A01. Display will still be required. Replace alarm for LIR13A01 and a new Signal from DACS tag "FIC ABORT" to <u>ABORT</u> at <u>TBD</u> increase over nominal to TBD by TRG based on GRS. The alarm mode based on AO-24VDC signal is OVRDC and the non-alarm mode through normally closed R. Bafug will write ATP for testing the FIC Level Alarm by May 1993.					
	JUSTIFICATION FOR CHANGE: ☐ See Attached The latest version of the Safety Assessment removes level alarms and abort setpoints associated with the radar gauge at 409.8" and 410" respectively.					
HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:						
☐ FDC ☒ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☒ ARP ☐ I/O Channel List ☒ DACS Software ☐ Other _____						
PRIORITY: ☐ 1 = Mandatory 2 = Important 3 = Nice to have						
ORIGINATOR: <u>E. E. Hall</u> Date: <u>4/13/93</u> Phone No.: <u>3-1779.</u>						
C C B	2.	CLASSIFICATION: <u>I</u>	DISPOSITION: ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel ☐ Defer	WHEN TO IMPLEMENT CHANGE: ☒ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change	IS AN ATP REQUIRED ☒ Yes ☐ No	
	APPROVAL:		<u>J. Carey</u>		Date: <u>4/13/93</u>	
	TRG ¹ /CCS ²		<u>Arturo Villalobos</u>		Date: <u>4/13/93</u>	
			<u>A.F. Vargo</u>		Date: <u>4/13/93</u>	
	ASSIGNED TO: <u>J. MARTIN / DANZ</u>		Phone No.: _____			
INFORM PROCEDURE WRITERS: <u>Hobocourt</u>		☐ Per Telecon Date: <u>4/13/93</u>				
3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None <u>v1.9.6</u>					
	CHANGE COMPLETED BY: <u>[Signature]</u> Date: <u>4/13/93</u> Phone No.: _____					
4.	CHANGE VERIFIED BY: <u>J. Carey</u> Date: <u>4/13/93</u> Phone No.: _____					

CR 166

2/3

[91] From: George F Vargo Jr at WHC35 4/12/93 1:23PM (1631 bytes: 16 ln)
To: Ruben E Mendoza at WHC15
cc: Ronald R Bafus at WHC140, Guy T Bear at WHC216, Tony R Benegas at WHC208,
Nick G Boechler at WHC266, J R (Randy) Bunch at WHC15, James H Bussell,
Karen L Drury at WHC207, Gregory J Gauck at WHC82, Richard L Golberg at WHC172,
William B Gregory at PNL55, Mark N Hall at WHC50, Carl E Hanson at WHC207,
John Hanson at WHC177, Terance Laney at WHC95, Jack W Lentsch at WHC288,
George J Miskho at WHC140, Mike J Ostrom at WHC208, Kris D Stauffer
at WHC160, Troy I Stokes at WHC207, Eric K Straalsund at WHC76, Michael E Tenvooren at KEH7,
George F Vargo Jr, ^Data Acquisition Control Sys-1 at WHC95, ^Los Alamos Nat Labs (DACS) at WHC95,
Kathleen F (Kitty) Lund, Carl P Schroeder
Subject: DACS ASSIGNMENT FOR FIC/RADAR

----- Message Contents -----

The FIC intrusive mode will be interfaced to the DACS via I/O #2. The signal is as follows:

0-24 VDC representing a high tank level alarm. This alarm value will be the same as defined in the SA for the radar gage, i.e., +2.00" increase over nominal. The DACS will see a +24 VDC at location 4.1.5.2 when the alarm is activated. Suggested tag name is "FIC LEVEL ALARM".

After barb will be the

"FIC TANK LEVEL ALARM"

FIC ALARM

FIC LVL

Could you please generate the appropriate CR to incorporate this change by the 4/13 CCM?

Your attention to this matter is greatly appreciated.

Current max of 4.0" or value up by TRG based on GRE.

George

TRG

[93] From: George F Vargo Jr at WHC35 4/12/93 2:17PM (663 bytes: 15 ln)
To: Ruben E Mendoza at WHC15
cc: George F Vargo Jr
Subject: Intrusion mode of 101SY FIC

----- Message Contents

George, the alarm mode should be 0 VDC and the non-alarm mode + 24 VDC through normally closed contacts of the intrinsically safe relay. This way the alarm circuit is fail safe.

R. R. Bafus

Reuben:

Please correct my message to incorporate this into the change request.

Thanks,

George

As far as you know there
will be no level abort?

Y/N
He is designing the elec stuff

What does he say about rada / ?
Y/N

HYDROGEN MITIGATION TEST PROJECT

Change Request

original.

167

CR No.:

163

Sheet 1 of 3

BEST AVAILABLE COPY

1. HARDWARE/SOFTWARE/DOCUMENT NAME: DACS Software and Documents

VERSION/REVISION: _____

OR TYPE: ☒ DEVELOPMENT ☐ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER

DESCRIPTION OF CHANGE: ☐ See Attached

Add for Area Radiation Monitor (ARM). DACS tags and software additions of "ARM GAMMA", "ARMABORT", "ARMALM", "ARM FAIL". "ARM GAMMA" will provide a continuous readout. ARMABORT, ARMALM, ARM FAIL will provide indications based on Digital ins.

JUSTIFICATION FOR CHANGE: ☐ See Attached

per Safety Assessment Level 3 Control, page 6-49, and Table 6-10 setpoints will be set.

HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:

☐ FDC ☐ IATP ☐ SDD ☒ Phase A TP ☐ Phase B TP ☐ ACP ☒ ARP ☒ I/O Channel List ☒ DACS Software ☐ Other _____

PRIORITY: ☐ 1 = Mandatory 2 = Important 3 = Nice to have

ORIGINATOR: Amey Date: 4/12/93 Phone No.: 3-1779

2. CLASSIFICATION: DISPOSITION: WHEN TO IMPLEMENT CHANGE: IS AN ATP REQUIRED

☐ ☐ ☐ ☐ ☐ Approve ☐ Approve/Modify ☐ Upon completion of change ☐ Yes

☐ Reject ☐ Cancel ☐ Prepare change and wait for approval ☐ No

☐ Defeat ☐ At next mandatory change

APPROVAL:

TRG¹/CCB² Arthur Villalobos Date: 4/13/93

James Date: 4/13/93

W. Vargo Date: 4/13/93

ASSIGNED TO: LAUL/MARTIN Phone No.: _____

INFORM PROCEDURE WRITERS: Johnson ☐ Per Telecon Date: 4/13/93

3. COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None

ARM GAMMA is a calculated tag & should be shown in that section of the I/O List. It is calculated from tag "ARMSEXP" as follows:

ARM GAMMA = 10 (ARMSEXP - 81.45) since as a 0-4V signal, it needed to go into a 0-5V channel (81.44 was set up 4-20mA and would not be a change. I discussed with JBT on the channel list with description "used to calculate ARM GAMMA", Range 0-5V and units of UNITS.

CHANGE COMPLETED BY: J. Vargo Date: 4/13/93 Phone No.: _____

4. CHANGE VERIFIED BY: J. Vargo Date: 4/13/93 Phone No.: _____

Apr 13, 1993 03:17PM FROM HANFORD

TO 887022953385

P.07

CR No. 168

SL 383

1.0 VDC = 1.0 mr/hr
2.0 VDC = 10. mr/hr
3.0 VDC = 100. mr/hr
4.0 VDC = 100. mr/hr

Please include this on the CR.

Thanks,

George

Notes per Telecon on 4/12/93 with G. F. Vargo.
ATP for ARM will be written by Ford.

CR No. 163
SL 2083

From: George F Vargo Jr at WHC35 4/12/93 3:46PM (3314 bytes: 59 ln)
 to: Ben E Mendoza at WHC15

Old R Rafus at WHC140, Guy T Bear at WHC216, Tony R Benegas at WHC208,
 J Roechler at WHC266, J R (Randy) Bunch at WHC15, James H Russell,
 on L Drury at WHC207, Gregory J Gauck at WHC82, Richard L Golberg at
 0172, William B Gregory at FNL55, Mark N Hall at WHC50, Carl E Hanson at
 0207, John Hanson at WHC177, Terance Laney at WHC95, Jack W Lentsch at
 0238, George J Miskho at WHC140, Mike J Ostrom at WHC208, Kris D Stauffer
 WHC160, Troy I Stokes at WHC207, Eric K Straalsund at WHC76,
 Michael E Tenvooren at KEH7, Data Acquisition Control Sys-1 at WHC95,
 at Alamos Nat Labs (DACS) at WHC95, Kathleen F (Kitty) Lund,
 01 F Schroeder, G W (Wayne) Shepherd at WHC207, Ray A Longwell at WHC207
 Subject: DACS ASSIGNMENTS FOR ARM

----- Message Contents -----

The ARM will be interfaced to the DACS via I/OH4. The
 signals are as follows:

0-4 VDC analog input representing gamma radiation. DACS
 location is 8.1.4.4. I will have the range to you as soon
 as I talk to R. Ford, the radiation engineer. Suggested tag
 name is "HMT GAMMA RADIATION". *ARM GAMMA*

0-24 VDC digital input representing high radiation alarm.
 This value will be set by radiation engineering at the time
 of the calibration of the instrument. The DACS will see +24
 VDC at location 8.2.4.11 when this alarm is activated.
 Suggested tag name is "HIGH HMT GAMMA RADIATION".

DACS tag ARMABORT

0-24 VDC digital input representing an alert radiation
 alarm.

This value will be set by radiation engineering at the time
 of the calibration of the instrument. The DACS will see a
 +24 VDC at location 8.2.4.12 when the alarm is activated.
 Suggested tag name is "ALERT HMT GAMMA RADIATION".

*Value to be determined
 by Ford.*

0-24 VDC digital input representing an instrument failure
 alarm.

DACS tag ARMALM

The DACS will see a +24 VDC signal under normal operating
 conditions. When an instrument failure condition is
 experienced the +24 VDC signal will be lost to the DACS.
 Suggested tag name is "ARM INSTRUMENT FAILURE". Note this
 alarm functions the opposite as the "HIGH HMT GAMMA
 RADIATION ALARM" and the "ALERT HMT GAMMA RADIATION" ALARMS.

*Value to be determined
 by Ford.*

Could you please generate the appropriate CRs to incorporate
 these changes by the 4/13 CCM?

*DACS tag ARMFAIL
 Digital In.*

Your attention to these matters is greatly appreciated.

George

Ruben:

The scaling for the ARM is as follows:

0.01 mr/hr - 100 mr/hr

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 168

Sheet 1 of 1

1. HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS software</u>		VERSION/REVISION: _____		CR TYPE: ☐ DEVELOPMENT ☐ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER	
DESCRIPTION OF CHANGE: ☐ See Attached					
<p>Add indications for high frequency alarms and aborts to the STNLM screen. Only indications (i.e. red light) will be provided, NOT the high frequency strain values.</p>					
<p>JUSTIFICATION FOR CHANGE: ☐ See Attached</p> <p>The STNLM screen currently has only low frequency alarm and abort indications - it should also provide indications for high freq. alarms/aborts.</p>					
HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:					
☐ FDC ☐ AIR ☐ SDO ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ APP ☐ NO Channelizer ☒ DACS Software ☐ Other					
PRIORITY: ☐ 1 = Mandatory ☐ 2 = Important ☐ 3 = Nice to have					
ORIGINATOR: <u>John Mendoza</u> Date: <u>4/13/93</u> Phone No.: <u>373-2207</u>					
2. CLASSIFICATION:		DISPOSITION:		WHEN TO IMPLEMENT CHANGE:	
☒ Approved ☐ Approve/Modify ☐ Upon completion of change ☐ Yes ☒ No		☐ Approve ☐ Reject ☐ Cancel		☐ Prepare change and wait for approval ☒ At next mandatory change	
APPROVAL:		<u>John Mendoza</u> <u>John Mendoza</u> <u>John Mendoza</u>		Date: <u>4/13/93</u> Date: <u>4/13/93</u> Date: <u>4/13/93</u>	
ASSIGNED TO:		<u>John Mendoza</u> <u>John Mendoza</u> <u>John Mendoza</u>		Phone No.: _____ Date: <u>4/13/93</u>	
INFORM PROCEDURE WRITERS:					
3. COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None					
CHANGE COMPLETED BY: _____ Date: <u>4/24/93</u> Phone No.: _____					
CHANGE VERIFIED BY: _____ Date: <u>4/24/93</u> Phone No.: _____					

HYDROGEN MITIGATION TEST PROJECT

Change Request

original

CR No.: 169

Sheet 1 of 1

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS channel List</u>		
	VERSION/REVISION: _____			
	CR TYPE: ☐ DEVELOPMENT ☐ CORRECT PROBLEM ☐ ENHANCEMENT ☒ OTHER			
	DESCRIPTION OF CHANGE: ☐ See Attached <u>Update DACS channel List per attached redline copy.</u>			
C C B	JUSTIFICATION FOR CHANGE: ☐ See Attached <u>channel List needs to be updated to reflect the changes in DACS software.</u>			
	HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:			
	☐ FDC ☒ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☒ I/O Channel List ☐ DACS Software ☐ Other _____			
	PRIORITY: ☐ 1 = Mandatory 2 = important 3 = Nice to have			
ORIGINATOR: <u>Ruben mendoya</u>		Date: <u>4/20/93</u> Phone No.: <u>373-2007</u>		
C C B	2.	CLASSIFICATION: ☐ I ☒ II	DISPOSITION: ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel ☐ Defer	WHEN TO IMPLEMENT CHANGE: ☒ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change
	IS AN ATP REQUIRED ☐ Yes ☒ No			
	APPROVAL: TRG ¹ /CCB ²		Date: <u>4/20/93</u> Date: <u>4/20/93</u> Date: <u>8/24/93</u>	
	ASSIGNED TO: <u>R. MENDOZA</u>		Phone No.: <u>3-2007</u>	
INFORM PROCEDURE WRITERS:		☐ Per Telecon Date: <u>/ /</u>		
3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None			
	CHANGE COMPLETED BY: <u>[Signature]</u> Date: <u>8/24/93</u> Phone No.: <u>373-1771</u>			
4.	CHANGE VERIFIED BY: <u>[Signature]</u> Date: <u>8/31/93</u> Phone No.: <u>376-0126</u>			

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 170

Sheet 1 of 1

1. HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS Software / Phase A TP</u>		VERSION/REVISION:		CR TYPE: ☒ DEVELOPMENT ☐ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER		DESCRIPTION OF CHANGE: ☒ See Attached		① Change Pump Bump about value to 1020 rpm ② Provide ability to manually set Pump Bump Speed 380 - 1000 rpm ③ Auto-link Pump Bump speed ALARM at 10 rpm > Pump Bump Speed ④ Provide ability to manually set Pump Bump time duration		JUSTIFICATION FOR CHANGE: ☒ See Attached ① ② ③ Rev 2 of SA permits pump bumping up to 1020 rpm w/ TRIG approval. DACS software currently accepts only 380 rpm ④ Due to DACS Acceleration Rate limitation, time duration may need to be extended to allow 8 seconds of Bump at full speed.		HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE: ☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel List ☐ DACS Software ☐ Other		PRIORITY: ☐ 1 = Mandatory 2 = Important 3 = Nice to have		ORIGINATOR: <u>J. Scar</u> Date: <u>4/12/93</u> Phone No.: <u>3-4254</u>			
2. CLASSIFICATION: ☒ I ☒ II ☐ III		DISPOSITION: ☒ Approve ☐ Approve/Modify ☐ Cancel		WHEN TO IMPLEMENT CHANGE: ☒ Upon completion of change ☐ Prepare changes and wait for approval ☐ No ☐ At next mandatory change		APPROVAL: <u>6. F. [Signature]</u> TRG/CCB? <u>✓</u>		ASSIGNED TO: <u>MARTIN / SOBOCINSKI</u> Phone No.: <u>✓</u>		INFORM PROCEDURE WRITERS: <u>✓</u> Date: <u>4/20/93</u>		3. COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None		ATP 046 ATP was completed 8-8-25-93		4. CHANGE COMPLETED BY: <u>[Signature]</u> Date: <u>8/31/93</u> Phone No.: <u>✓</u>		5. CHANGE VERIFIED BY: <u>[Signature]</u> Date: <u>8/31/93</u> Phone No.: <u>✓</u>	

HYDROGEN MITIGATION TEST PROJECT

Change Request

original.

CR No.: 171

Sheet 1 of 1

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS SOFTWARE</u>			
	VERSION/REVISION: _____				
	CR TYPE: ☐ DEVELOPMENT ☒ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER				
	DESCRIPTION OF CHANGE: ☐ See Attached <u>INCORPORATE REQUIRED CHANGES TO</u> <u>CLEAR ATP TEST EXCEPTION # 65</u> <u>INSTRUMENT PROBLEM ALARM</u>				
C C B		JUSTIFICATION FOR CHANGE: ☐ See Attached <u>See Change Request #126.</u>			
		HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE: ☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel List ☒ DACS Software ☐ Other _____			
		PRIORITY: ☐ 1 ☐ 2 ☐ 3 1=Mandatory 2=Important 3=Nice to have			
		ORIGINATOR: <u>T. LANEY</u> Date: <u>4/24/93</u> Phone No.: <u>6-0126</u>			
	2.	CLASSIFICATION: ☐ I ☐ II	DISPOSITION: ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel ☐ Defer	WHEN TO IMPLEMENT CHANGE: ☐ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change	IS AN ATP REQUIRED ☒ Yes ☐ No
		APPROVAL: TRG ¹ /CCB ²	<u>G. F. Vargos</u> <u>Therese Z...</u> Date: <u>4/27/93</u> Date: <u>4/27/93</u> Date: <u>4/27/93</u>		
		ASSIGNED TO: _____		Phone No.: _____	
		INFORM PROCEDURE WRITERS: <u>Paul Cummins</u>		☐ Per Telecon Date: <u>4/27/93</u>	
	3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None <u>ATP-046 ATP completed per telecon with AC Zickler 8-25-93.</u>			
		CHANGE COMPLETED BY: <u>J. M...</u>		Date: <u>8/25/93</u> Phone No. _____	
	4.	CHANGE VERIFIED BY: <u>A. J. ...</u>		Date: <u>8/25/93</u> Phone No. _____	

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 172

Sheet 1 of 1

original

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS</u>			
	VERSION/REVISION: _____				
	CR TYPE: ☐ DEVELOPMENT ☒ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER				
	DESCRIPTION OF CHANGE: ☐ See Attached <u>EXCHANGE DATA BETWEEN FT-NH3C AND FT-N20C</u>				
C C B		JUSTIFICATION FOR CHANGE: ☐ See Attached <u>DATA RECORDING IS SWITCHED.</u>			
		HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE: ☐ FDC ☐ ATP ☐ SDO ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel List ☒ DACS Software ☐ Other _____			
		PRIORITY: ☒ 1 = Mandatory 2 = Important 3 = Nice to have			
		ORIGINATOR: <u>T. LANEY</u> Date: <u>4, 24, 93</u> Phone No.: <u>6-0126</u>			
	2.	CLASSIFICATION: ☐ I ☐ II	DISPOSITION: ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel ☐ Defer	WHEN TO IMPLEMENT CHANGE: ☐ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change	IS AN ATP REQUIRED ☒ Yes ☒ No <u>4, 24, 93</u>
		APPROVAL: TRG ¹ /CCB ² <u>[Signature]</u> Date: <u>4, 27, 93</u> <u>[Signature]</u> Date: <u>4, 27, 93</u> <u>[Signature]</u> Date: <u>4, 27, 93</u>			
		ASSIGNED TO: _____ Phone No.: _____			
		INFORM PROCEDURE WRITERS: <u>Pant Randall</u> ☐ Per Telecon Date: <u>4, 27, 93</u>			
	3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None <u>ATP-046 completed 8-25-93</u> <u>per telecon with AC Zudilke</u>			
		CHANGE COMPLETED BY: <u>[Signature]</u> Date: <u>8, 25, 93</u> Phone No.: _____			
	4.	CHANGE VERIFIED BY: <u>[Signature]</u> Date: <u>8, 15, 93</u> Phone No.: _____			

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.:

173

Sheet 1 of 1

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS SOFTWARE</u>		
	VERSION/REVISION: _____			
	CR TYPE: ☒ DEVELOPMENT ☐ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER			
	DESCRIPTION OF CHANGE: ☐ See Attached <u>REMOVE FROM STRATEGY AND SCREENS (MANABRT) ALL REFERENCE TO H2 RATE OF RELEASE DURING MIXER PUMP INSTALLATION.</u>			
	JUSTIFICATION FOR CHANGE: ☐ See Attached <u>NO LONGER REQUIRED.</u>			
C C B	HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:			
	☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel List ☒ DACS Software ☐ Other _____			
	PRIORITY: <u>[2]</u> 1 = Mandatory 2 = Important 3 = Nice to have			
	ORIGINATOR: <u>T. LANGY</u> Date: <u>4, 24, 93</u> Phone No.: <u>6-0126</u>			
	2. CLASSIFICATION: DISPOSITION: WHEN TO IMPLEMENT CHANGE: IS AN ATP REQUIRED			
☐ I ☐ II		☒ Approve ☐ Approve/Modify	☐ Upon completion of change	☐ Yes
		☐ Reject ☐ Cancel	☐ Prepare change and wait for approval	☒ No
		☐ Defer	☐ At next mandatory change	
APPROVAL:				
TRG ¹ /CCB ²		Date: <u>4, 22, 93</u>		
		Date: <u>4, 27, 93</u>		
		Date: <u>4, 27, 93</u>		
ASSIGNED TO:		Phone No.:		
INFORM PROCEDURE WRITERS: <u>Paul Campbell</u>		☐ Per Telecon Date: <u>4, 22, 93</u>		
3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None			
CHANGE COMPLETED BY: <u>[Signature]</u> Date: <u>4, 24, 93</u> Phone No.:				
4.	CHANGE VERIFIED BY: <u>[Signature]</u> Date: <u>4, 24, 93</u> Phone No.:			

HYDROGEN MITIGATION TEST PROJECT

Change Request

BEST AVAILABLE COPY

CR No.: 174

Sheet 1 of 1

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS SOFTWARE</u>		
	VERSION/REVISION: _____			
	CR TYPE: ☐ DEVELOPMENT ☐ CORRECT PROBLEM ☒ ENHANCEMENT ☐ OTHER			
	DESCRIPTION OF CHANGE: ☐ See Attached			
	1. ADD PHASE B TEST CONTROL LOGIC TO STATION 8. <u>Not Completed as of 8.25.93</u> 2. REMOVE PUMP PERFORMANCE LOGIC FROM STATION 8. <u>Completed 8.25.93</u>			
C C B	JUSTIFICATION FOR CHANGE: ☐ See Attached The pump performance curves are left over from the old test area and are no longer valid. This is changing the model strategy and improve its performance.			
	HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:			
	☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Chan ☐ List ☒ DACS Software ☐ Other _____			
	PRIORITY: ☐ 1 = Mandatory 2 = Important 3 = Nice to have			
	ORIGINATOR: <u>T. LANEY</u> Date: <u>4.24.93</u> Phone No.: <u>6-0126</u>			
C C B	2.	CLASSIFICATION:	DISPOSITION:	WHEN TO IMPLEMENT CHANGE:
	☐ I ☐ II	☐ Approve ☒ Approve/Modify 1 2	☐ Upon completion of change	☒ Yes
		☐ Reject ☐ Cancel	☐ Prepare change and wait for approval	☐ No
		☐ Defer	☐ At next mandatory change	
	APPROVAL:	<u>H. E. Varco</u> (Approval of #1) <u>Paul Curdall</u>		
C C B	TRG ¹ /CCB ²	Date: <u>4.27.93</u> Date: <u>4.27.93</u> Date: <u>4.27.93</u>		
	ASSIGNED TO:		Phone No.:	
	INFORM PROCEDURE WRITERS: <u>Paul Curdall</u>		☐ Per Telecon Date: <u>4.22.93</u>	
	3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None		
	ATP-062 (PB PB directory) has not been done This ATP must be completed, then once satisfactory will be called from PB PB directory to Runtime Motor directory <u>8.25.93</u>			
C C B	CHANGE COMPLETED BY:	<u>Paul Curdall</u> Date: <u>7.7.93</u> Phone No.: <u>373-4250</u>		
	CHANGE VERIFIED BY:	<u>#1 Paul Curdall 4/93</u> Date: <u>7.9.93</u> Phone No.: <u>373-1779</u>		

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 175
Sheet 1 of 1

1. HARDWARE/SOFTWARE/DOCUMENT NAME: DACS SOFTWARE

VERSION/REVISION: _____

ORIGINATOR

CR TYPE: ☐ DEVELOPMENT ☒ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER

DESCRIPTION OF CHANGE: ☐ See Attached Change DACS tag name for PDTMSY04 to PDTMSY12
CHANGE RANGE FOR PDTMSY12 (GC-3), PDITMSY6, GC
and PDITMSY9 (GC-2)
FROM: 0-25 in WG
TO: 0-250 in WG

JUSTIFICATION FOR CHANGE: ☐ See Attached
INCORRECT RANGE FOR TAG.

HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:

☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☒ Channel List ☒ DACS Software ☐ Other _____

PRIORITY: ☒ 1 = Mandatory 2 = Important 3 = Nice to have

ORIGINATOR: T. LANEY Date: 4/24/93 Phone No.: 6-0126

2. CLASSIFICATION: DISPOSITION: WHEN TO IMPLEMENT CHANGE: IS AN ATP REQUIRED

☐ I ☐ II ☐ Approve ☐ Approve/Modify ☐ Upon completion of change ☒ Yes

☐ Reject ☐ Cancel ☐ Prepare change and wait for approval ☐ No

☐ Defer ☐ At next mandatory change

APPROVAL:

TRG¹/CCB² [Signature] Date: 4/27/93

[Signature] Date: 4/27/93

[Signature] Date: 4/27/93

ASSIGNED TO: _____ Phone No.: _____

INFORM PROCEDURE WRITERS: Paul Cunniff ☐ Per Telecon Date: 4/27/93

3. COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None VIA

CHANGE COMPLETED BY: [Signature] Date: 4/27/93 Phone No.: _____

4. CHANGE VERIFIED BY: T. Laney Date: 4/24/93 Phone No.: _____

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 176

Sheet 1 of 1

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS SOFTWARE</u>			
	VERSION/REVISION: _____				
	CR TYPE: ☐ DEVELOPMENT ☐ CORRECT PROBLEM ☒ ENHANCEMENT ☐ OTHER				
	DESCRIPTION OF CHANGE: ☐ See Attached <u>ADD "ENABLE ABORT COIL" BUTTON</u> <u>TO HUTALARM TEMPALM</u> <u>PUMPALRM MANABRT</u> <u>STRNALM</u>				
C C B		JUSTIFICATION FOR CHANGE: ☐ See Attached <u>EASIER USE OF SCREENS</u> <u>Currently the only screen with "ENABLE ABORT COIL" is CS-MAIN</u>			
		HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE: ☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel List ☒ DACS Software ☐ Other _____			
		PRIORITY: <u>[3]</u> 1=Mandatory 2=Important 3=Nice to have			
		ORIGINATOR: <u>T. LANEY</u> Date: <u>4, 24, 93</u> Phone No.: <u>6-0126</u>			
	2.	CLASSIFICATION: ☐ I ☐ II	DISPOSITION: ☐ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel ☒ Defer	WHEN TO IMPLEMENT CHANGE: ☐ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change	IS AN ATP REQUIRED ☐ Yes ☒ No
		APPROVAL: TRG ¹ /CCB ² <u>[Signature]</u> Date: <u>4, 27, 93</u> _____ _____ _____ Date: _____ Date: _____			
		ASSIGNED TO: _____ Phone No.: _____			
		INFORM PROCEDURE WRITERS: <u>Paul Marshall</u> ☐ Per Telecon Date: <u>4, 27, 93</u>			
	3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None <u>V 1.9.5</u>			
		CHANGE COMPLETED BY: <u>[Signature]</u> Date: <u>4, 24, 93</u> Phone No.: _____			
	4.	CHANGE VERIFIED BY: <u>[Signature]</u> Date: <u>4, 24, 93</u> Phone No.: _____			

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 177

Sheet 1 of

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS SOFTWARE</u>			
	VERSION/REVISION: _____				
	CR TYPE: ☐ DEVELOPMENT ☒ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER				
	DESCRIPTION OF CHANGE: ☐ See Attached <u>ADD THE FOLLOWING SCREENS TO ASMAIN:</u> <u>MOSH2LOW</u> <u>PUMPSTRN</u> <u>MSPECPRS</u> <u>FLUIDVEL</u> <u>PUMPFLOW</u> <u>DOMEPRS</u> <u>PUMPPRES</u> <u>PUMPVIB</u> <u>PUMPOLT</u> <u>PUMPSPD</u> <u>VENTFLOW</u>				
C C B		JUSTIFICATION FOR CHANGE: ☐ See Attached <u>FILES (SCREENS) WERE MISSING FROM THE FILE</u> <u>TRANSFER THAT WAS CONDUCTED ON 4-24-93</u>			
		HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE: ☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel List ☒ DACS Software ☐ Other _____			
		PRIORITY: ☐ 1 ☐ 2 ☐ 3 1=Mandatory 2=Important 3=Nice to have			
		ORIGINATOR: <u>T. LANEY</u> Date: <u>4,24,93</u> Phone No.: <u>6-0126</u>			
	2.	CLASSIFICATION: ☐ I ☐ II	DISPOSITION: ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel ☐ Defer	WHEN TO IMPLEMENT CHANGE: ☐ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change	IS AN ATP REQUIRED ☐ Yes ☒ No
		APPROVAL: TRG ¹ /CCB ² <u>[Signature]</u> Date: <u>4,27,93</u> <u>[Signature]</u> Date: <u>4,27,93</u> <u>[Signature]</u> Date: <u>4,27,93</u>			
		ASSIGNED TO: _____ Phone No.: _____			
		INFORM PROCEDURE WRITERS: <u>Paul Randall</u> ☐ Per Telecon Date: <u>4,27,93</u>			
	3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None <u>V1.9.6</u>			
		CHANGE COMPLETED BY: <u>[Signature]</u> Date: <u>4,30,93</u> Phone No.: _____			
	4.	CHANGE VERIFIED BY: <u>[Signature]</u> Date: <u>4,30,93</u> Phone No.: _____			

HYDROGEN MITIGATION TEST PROJECT Change Request

CR No.: 178
Sheet 1 of 3

1.	Hardware/Software/Document Name: WHC-SD-WM-EL-001, SY-101 Hydrogen Mitigation Test DACS Input/Output Channel List Software Scaling Factors for Data Screen for 12 Strain Gages Version/Revision: 0		
2.	CR Type: ☐ Development ☒ Correct Problem ☐ Enhancement ☐ Other		
3.	Short Task Description/Justification: ☒ See Attached Range values for strain gages are being changed to improve sensitivity within expected voltage range. See attached table for new range values and alarm settings.		
4.	Detail Description: ☒ See Attached 1. Incorporate revised scaling factors into software so that strain values displayed are correct (see attachment). This change is required because of the addition of additional amplifiers in each strain gage circuit.		
5.	Originator Priority: ☒ 2 1=Critical 2=Very Important 3=Important 4=Interesting		
6.	Originator: J.H. Bussell Date: April 26, 1993 Phone No.: 376-9621		
7.	Disposition: Priority (See 5.) ☐ Classification: ☐ I ☐ II ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Defer	Implement: ☐ Yes ☐ Wait for approval ☐ At next mandatory change	☒ DACS test required
8.	TRG/CCB Approval: <div style="display: flex; justify-content: space-between;"> <div> <u>4/27/93</u> <i>[Signature]</i> <u>4/27/93</u> <i>[Signature]</i> <u>4/27/93</u> <i>[Signature]</i> </div> <div> Date: Date: Date: </div> </div>		
9.	Assigned to: _____ Phone No. _____		
10.	Copy to originator: ☐ After CCB/TRG disposition (Date: ____/____/____) ☐ After change implementation (Date: ____/____/____)		
11.	Change Comments or Hardware/Software/Documents Affected by Change : ☐ See Attached <div style="height: 40px; border: 1px solid black; margin-top: 5px;"> V1.9.6 </div>		
12.	How was change implemented? ☐ ECN _____ ☐ Ltr No. _____ ☐ This CR		
13.	Completed by: <i>[Signature]</i> Date: <u>4/30/93</u>		

CR No.: 17.8
Sheet 2 of 3

14.	WHC Verify Implementation: Phone No.	<u>D. Lamy</u>	Date: <u>1, 30, 93</u>
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Form #: HMTF-CR-1 (1-14-92)

1 = CLASS 1 2 = CLASS II

Change Request Attachment 1		Page 1 of 2	
DACS Tag No.	Description	Process Variable Range (microstrain)	I/O Location
WIR17B01	Strain Gage in Riser 17B at Level 465.5" [MIT]	New: +/- 684 Was: +/- 2139	14.2.5.4
WIR17B02	Strain Gage in Riser 17B at Level 465.5" [MIT]	New: +/- 684 Was: +/- 2139	14.2.6.4
WIR14A01	Strain Gage in Riser 17B at Level 502" [VDTT]	New: +/- 684 Was: +/- 2139	14.2.5.1
WIR14A02	Strain Gage in Riser 14A at Level 502" [VDTT]	New: +/- 684 Was: +/- 2139	14.2.6.1
WIR14A03	Strain Gage in Riser 14A at Level 502" [VDTT]	New: +/- 684 Was: +/- 2139	14.2.5.2
WIR18A01	Strain Gage in Riser 18 at Level 530" [VDTT]	New: +/- 684 Was: +/- 2139	14.2.6.2
WIR18A02	Strain Gage in Riser 18 at Level 530" [VDTT]	New: +/- 684 Was: +/- 2139	14.2.6.7
WIR18A03	Strain Gage in Riser 17B at Level 530" [VDTT]	New: +/- 684 Was: +/- 2139	14.2.6.3

Notes:

1. The range for the mixer pump strain gages is +/- 684 microstrain.

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 179Sheet 1 of 1

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS Software</u>	
		VERSION/REVISION: _____	
		CR TYPE: ☐ DEVELOPMENT ☐ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER	
		DESCRIPTION OF CHANGE: ☐ See Attached <u>Remove DACS tag GC3 Area or at a minimum, remove its alarm setpoints.</u>	
		JUSTIFICATION FOR CHANGE: ☐ See Attached <u>This tag is not needed because it provides duplicate information (same info. as GC3-H2). GC3-H2 has appropriate alarm(s).</u>	
	HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:		
	☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☒ I/O Channel List ☒ DACS Software ☐ Other _____		
	PRIORITY: ☐ 1 = Mandatory 2 = Important 3 = Nice to have		
	ORIGINATOR: <u>Rube mendoza</u> Date: <u>04, 27, 93</u> Phone No.: <u>3-2007</u>		

C C B	2.	CLASSIFICATION:	DISPOSITION:	WHEN TO IMPLEMENT CHANGE:	IS AN ATP REQUIRED
		☐ I ☐ II	☒ Approve ⁴⁻²⁹⁻⁹³ ☐ Approve/Modify	☐ Upon compie	
			☐ Reject ☐ Cancel	☐ Prepare chan	
			☒ Defer	☐ At next man	
		APPROVAL:	<u>[Signature]</u>	<u>4-29-93</u>	
	TRG ¹ /CCB ²	<u>A.F. Vargos</u>	<u>4/29/93</u>		
		<u>[Signature]</u>	<u>4/29/93</u>		
	ASSIGNED TO:	Phone No.: _____			
	INFORM PROCEDURE WRITERS:	<u>Paul Lundell</u> ☐ Per Telecon Date: <u>4/27/93</u>			

3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None <u>v1.9.6</u>
	CHANGE COMPLETED BY: <u>[Signature]</u> Date: <u>4, 30, 93</u> Phone No. _____
4.	CHANGE VERIFIED BY: <u>[Signature]</u> Date: <u>4-1-0, 93</u> Phone No. _____

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 180

Sheet 1 of

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>Minimum Instrument Report</u>																					
	VERSION/REVISION: _____																						
	CR TYPE: ☐ DEVELOPMENT ☒ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER																						
	DESCRIPTION OF CHANGE: ☐ See Attached <u>Correct unit discrepancies and Descriptions associated with Minimum Instrument Report. See Greg Gank for further explanation if needed.</u>																						
	JUSTIFICATION FOR CHANGE: ☐ See Attached																						
C C B	HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:																						
	☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel List ☐ DACS Software ☐ Other _____																						
	PRIORITY: <u>[2]</u> 1=Mandatory 2=Important 3=Nice to have																						
	ORIGINATOR: <u>Greg Gank</u> Date: <u>4/27/93</u> Phone No.: <u>373-1777</u>																						
	<table border="0"> <tr> <td>2.</td> <td>CLASSIFICATION: <u>I</u></td> <td>DISPOSITION:</td> <td>WHEN TO IMPLEMENT CHANGE:</td> <td>IS AN ATP REQUIRED</td> </tr> <tr> <td></td> <td>☐ I ☐ II</td> <td>☐ Approve ☐ Approve/Modify</td> <td>☐ Upon completion of change</td> <td>☐ Yes</td> </tr> <tr> <td></td> <td></td> <td>☐ Reject ☐ Cancel</td> <td>☐ Prepare change and wait for approval</td> <td>☐ No</td> </tr> <tr> <td></td> <td></td> <td>☐ Defer</td> <td>☐ At next mandatory change</td> <td></td> </tr> </table>				2.	CLASSIFICATION: <u>I</u>	DISPOSITION:	WHEN TO IMPLEMENT CHANGE:	IS AN ATP REQUIRED		☐ I ☐ II	☐ Approve ☐ Approve/Modify	☐ Upon completion of change	☐ Yes			☐ Reject ☐ Cancel	☐ Prepare change and wait for approval	☐ No			☐ Defer	☐ At next mandatory change
2.	CLASSIFICATION: <u>I</u>	DISPOSITION:	WHEN TO IMPLEMENT CHANGE:	IS AN ATP REQUIRED																			
	☐ I ☐ II	☐ Approve ☐ Approve/Modify	☐ Upon completion of change	☐ Yes																			
		☐ Reject ☐ Cancel	☐ Prepare change and wait for approval	☐ No																			
		☐ Defer	☐ At next mandatory change																				
APPROVAL: <u>Greg Gank</u> Date: <u>4/27/93</u> TRG ¹ /CCB ² <u>U. G. Vargo</u> Date: <u>4/27/93</u> <u>Frankie V. D.</u> Date: <u>4/27/93</u>																							
ASSIGNED TO: _____ Phone No.: _____																							
INFORM PROCEDURE WRITERS: <u>Paul Candall</u> ☐ Per Telecon Date: <u>4/27/93</u>																							
3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None <u>PIR 7804, PIR 1101 units from PSI to INWK. LIR 19201 removed.</u> <u>FICKBORT added. V1.9.6</u>																						
CHANGE COMPLETED BY: <u>L. J. Mott</u> Date: <u>4/30/93</u> Phone No.: _____																							
4.	CHANGE VERIFIED BY: <u>J. Carney</u> Date: <u>4/30/93</u> Phone No.: _____																						

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 181

Sheet 1 of 1

<p>1. HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS SCREEN (RECOVER)</u></p>	<p>VERSION/REVISION: _____</p>	<p>CR TYPE: ☒ DEVELOPMENT ☒ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER</p>	<p>DESCRIPTION OF CHANGE: ☐ See Attached</p> <p>LINK TAG FTS0001 SUCH THAT WHEN LOW ALARM LIMIT (BELOW 425 CFM) IS REACHED, DISPLAYED TAG NAME & VALUE TURNS RED.</p>	<p>JUSTIFICATION FOR CHANGE: ☐ See Attached</p> <p>AT PRESENT TIME, COLOR CHANGE OCCURS ONLY FOR HIGH ALARM (ABOVE 675 CFM)</p>	<p>HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE: _____</p>	<p>PRIORITY: ☒ 1 = Mandatory 2 = Important 3 = Nice to have</p> <p>ORIGINATOR: <u>T. LANEY</u> Date: <u>4/29/93</u> Phone No.: <u>6-0126</u></p>	<p>2. CLASSIFICATION: _____ DISPOSITION: _____ WHEN TO IMPLEMENT CHANGE: _____ IS AN ATP REQUIRED ☐</p> <p>☐ I ☐ II ☐ Approve ☐ Approve/Modify ☐ Upon completion of change ☐ No ☐ Yes</p> <p>☐ Defect ☐ Reject ☐ Cancel ☐ Prepare change and wait for approval ☐ At next mandatory change</p> <p>APPROVAL: _____ TRG¹/CCB² _____</p> <p>ASSIGNED TO: _____</p> <p>INFORM PROCEDURE WRITERS: _____</p> <p>COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None</p>	<p>3. CHANGE COMPLETED BY: _____</p> <p>4. CHANGE VERIFIED BY: _____</p>
---	--------------------------------	---	--	--	--	--	--	--

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 182

Sheet 1 of

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS SOFTWARE</u>																					
	VERSION/REVISION: _____																						
	CR TYPE: ☐ DEVELOPMENT ☐ CORRECT PROBLEM ☒ ENHANCEMENT ☐ OTHER																						
	DESCRIPTION OF CHANGE: ☐ See Attached <u>DELETE SCREENS ITR14A & ITR1B (VDTT'S)</u> <u>CREATE NEW SCREEN VDTT THAT COMBINES</u> <u>REMAINING VALID DATA: STRAINS, FLUID FLOW,</u> <u>TR1B02 AND 1B PRESSURE. REMOVE DEAD SENSOR</u> <u>FROM STRATEGY</u>																						
	JUSTIFICATION FOR CHANGE: ☐ See Attached <u>VDTT'S ARE NEARLY DEAD AND DATA FROM</u> <u>FAULTY SENSORS SHOULD BE REMOVED FROM</u> <u>STRATEGY.</u>																						
C C B	HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:																						
	☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ LAOP ☐ ARP ☒ I/O Channel List ☒ DACS Software ☐ Other _____																						
	PRIORITY: <u>[2]</u> 1=Mandatory 2=Important 3=Nice to have																						
	ORIGINATOR: <u>T. LANEY</u> Date: <u>5/3/93</u> Phone No.: <u>6-0126</u>																						
	<table border="0"> <tr> <td>2.</td> <td>CLASSIFICATION:</td> <td>DISPOSITION:</td> <td>WHEN TO IMPLEMENT CHANGE:</td> <td>IS AN ATP REQUIRED</td> </tr> <tr> <td></td> <td>☐ I ☐ II</td> <td>☐ Approve ☐ Approve/Modify</td> <td>☐ Upon completion of change</td> <td>☐ Yes</td> </tr> <tr> <td></td> <td></td> <td>☒ Reject ☐ Cancel</td> <td>☐ Prepare change and wait for approval</td> <td>☐ No</td> </tr> <tr> <td></td> <td></td> <td>☒ Defer</td> <td>☐ At next mandatory change</td> <td></td> </tr> </table>				2.	CLASSIFICATION:	DISPOSITION:	WHEN TO IMPLEMENT CHANGE:	IS AN ATP REQUIRED		☐ I ☐ II	☐ Approve ☐ Approve/Modify	☐ Upon completion of change	☐ Yes			☒ Reject ☐ Cancel	☐ Prepare change and wait for approval	☐ No			☒ Defer	☐ At next mandatory change
2.	CLASSIFICATION:	DISPOSITION:	WHEN TO IMPLEMENT CHANGE:	IS AN ATP REQUIRED																			
	☐ I ☐ II	☐ Approve ☐ Approve/Modify	☐ Upon completion of change	☐ Yes																			
		☒ Reject ☐ Cancel	☐ Prepare change and wait for approval	☐ No																			
		☒ Defer	☐ At next mandatory change																				
APPROVAL:																							
TRG ¹ /CCS ² _____ Date: ____/____/____																							
_____ Date: ____/____/____																							
_____ Date: ____/____/____																							
ASSIGNED TO: _____ Phone No.: _____																							
INFORM PROCEDURE WRITERS: _____ [] Per Telecon Date: ____/____/____																							
3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None																						
CHANGE COMPLETED BY: _____ Date: ____/____/____ Phone No. _____																							
4.	CHANGE VERIFIED BY: _____ Date: ____/____/____ Phone No. _____																						

STATION 8 VIC. 121701

Page Back	UDTT INSTRUMENT TREE RISERS 1B AND 14A I UDTT I	MAP	CS	MS	AS
HH:MM:SS					MM/DD/YY

PARAMETER	1B	14A
TEMPERATURE	TIR1B02 ???.?°F	----
PRESSURE	DCR01B02.2 ???.? PSID	----
FLUID FLOW 1	FIR01B01 ???.? FT/SEC	FIR14A01 ???.? FT/SEC
FLUID FLOW 2	FIR01B02 ???.? FT/SEC	FIR14A02 ???.? FT/SEC
STRAIN	WIR1BA01 ???.? U"/IN	WIR14A01 ???.? U"/IN
	WIR1BA02 ???.? U"/IN	WIR14A02 ???.? U"/IN
	WIR1BA03 ???.? U"/IN	WIR14A03 ???.? U"/IN

Note: PSID is Sensor to Vapor Space

			DYN

Page
Back

INSTRUMENT TREE (1) RISER 1B (UDT) [ITR1B]

MAP

CS

MS

AS

16:38:41

05/03/93

PIR1BA01 0.0 PSIA

14A

WIR1BA01 20.0 u"/IN

1B

WIR1BA03 -14.4 u"/IN

WIR1BA02 574.5 u"/IN

377"

TIR1B07 140.0 °F
DCR01B07.2 1.0 PSID
DCR01B07.3 0.9 SPG

309"

TIR1B06 0.0 0.0 °F
DCR01B06.2 0.0 0.0 PSID
DCR01B06.3 0.0 0.0 SPG

261"

TIR1B05 0.0 0.0 °F
DCR01B05.2 0.0 0.0 PSID
DCR01B05.3 0.0 0.0 SPG

213"

TIR1B04 0.0 0.0 °F
DCR01B04.2 0.0 0.0 PSID
DCR01B04.3 0.0 0.0 SPG

165"

TIR1B03 0.0 0.0 °F
DCR01B03.2 0.0 0.0 PSID
DCR01B03.3 0.0 0.0 SPG

106"

TIR1B02 126.4 °F
DCR01B02.2 17.7 PSID
DCR01B02.3 1.6 SPG

47"

TIR1B01 0.0 0.0 °F
DCR01B01.2 0.0 0.0 PSID
DCR01B01.3 0.0 0.0 SPG

FIR01B02 0.0 FT/SEC

FIR01B01 0.0 FT/SEC

Note: PSID is Sensor to Vapor Space

TAG TIR1B07

AIN

WASTE TEMP 1B, LUL 360"

SCAN 6.00 sec

out 140.0

DEG F HRC 140.00 LRG 80.00 PRIORITY 0

evl 144.5

TRK Y HALM 130.00 LALM 0.000 RALM 400.00

SQRT N INIT N FILT 0.000 IALM N

ALARM LALM FTE50002 GEN-NE

Page Back	INSTRUMENT TREE (2) RISER 14A (UDT) [ITR14A]				MAP	CS	MS	AS
PIR14A01 14.3 PSIA					16:37:00 05/03/93			
WIR14A02 -47.8 u"/IN					1B			
14					[WIR14A03 -20.0 u"/IN			
A					[WIR14A01 11.4 u"/IN			
374"					[ITR14A01 3.0 0.0 0.0 0.0			
306"					[DCR14A07.2 25.9 PSID			
258"					[DCR14A07.3 20.7 SPG			
210"					[ITR14A03 3.0 0.0 0.0 0.0			
162"					[DCR14A03 3.0 0.0 0.0 0.0			
114"					[ITR14A03 3.0 0.0 0.0 0.0			
44"					[DCR14A03 3.0 0.0 0.0 0.0			
FIR14A02 0.0 FT/SEC					[ITR14A01 3.0 0.0 0.0 0.0			
FIR14A01 0.0 FT/SEC					[DCR14A01 3.0 0.0 0.0 0.0			
Note: PSID is Sensor to Vapor Space.								
TAG TIR14A04	AIN	WASTE TEMP 14A, LVL 216"	SCAN 6.00	sec				
out	A 80.0	DEG F	HRC 140.00	LRG 88.00	PRIORITY 0			
evl	37.6	TRK Y	HALM 130.00	LALM 0.000	HALM 400.00			
				SORT N	FILT 0.000	IALM N		
COMM. PORT 1				SCANNER OVERRUN	ALARM LALM FTE50002	GEN-NE		

HYDROGEN MITIGATION TEST PROJECT

Change Request

original

CR No.: 183

Sheet 1 of 1

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS SOFTWARE</u>			
	VERSION/REVISION: _____				
	CR TYPE: ☐ DEVELOPMENT ☒ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER				
	DESCRIPTION OF CHANGE: ☐ See Attached CHANGE SENSORS FOR AA VDTT'S TO S.O.O.C AS FOLLOWS: PIRIBA01 TIRI4A04 REMOVE FROM STRATEGY TIRIB07 DCR14A07.2 DCR01B07.2 DCR14A07.3 DCR01B07.3 DIR14A07				
C C B		JUSTIFICATION FOR CHANGE: ☐ See Attached SENSORS ARE 00°C			
	HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE: ☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel List ☒ DACS Software ☐ Other _____				
	PRIORITY: [2] 1=Mandatory 2=Important 3=Nice to have				
	ORIGINATOR: <u>T. LANEY</u> Date: <u>5/4/93</u> Phone No.: <u>6-0126</u>				
C C B	2.	CLASSIFICATION: ☐ I ☐ II	DISPOSITION: ☐ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel ☐ Defer	WHEN TO IMPLEMENT CHANGE: ☐ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change	IS AN ATP REQUIRED ☐ Yes ☐ No
	APPROVAL: TRG ¹ /CCB ² <u>[Signature]</u> Date: <u>5/4/93</u> <u>[Signature]</u> Date: <u>5/4/93</u> <u>[Signature]</u> Date: <u>5/4/93</u>				
	ASSIGNED TO: _____ Phone No.: _____				
	INFORM PROCEDURE WRITERS: <u>Paul Randall</u> ☐ Per Telecon Date: <u>5/4/93</u>				
3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None <u>DIR14A07 + DIR01B07 removed also.</u> <u>DCR14A04 (uses TIRI4A04)</u>				
	CHANGE COMPLETED BY: <u>[Signature]</u> Date: <u>5/5/93</u> Phone No. _____				
4.	CHANGE VERIFIED BY: <u>J. Laney</u> Date: <u>5/5/93</u> Phone No. _____				

HYDROGEN MITIGATION TEST PROJECT

Change Request

original

CR No.: 184

Sheet 1 of 1

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS SOFTWARE</u>		
		VERSION/REVISION: _____		
		CR TYPE: ☐ DEVELOPMENT ☒ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER		
		DESCRIPTION OF CHANGE: ☐ See Attached <u>TANK SCREEN.</u> <u>1. REMOVE MOS'S FROM SCREEN</u> <u>2. ADD MIT ELEVATIONS.</u> <u>3. FIX TIME INTERVAL: SAYS 10 MIN. SHOULD BE 10 MIN RUNS 30 MIN.</u>		
		JUSTIFICATION FOR CHANGE: ☐ See Attached <u>NOT REQUIRED</u>		
		HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE: ☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel List ☒ DACS Software ☐ Other _____		
		PRIORITY: <u>[2]</u> 1=Mandatory 2=Important 3=Nice to have ORIGINATOR: <u>T. LANEY</u> Date: <u>5/4/93</u> Phone No.: <u>6-0126</u>		
C C B	2.	CLASSIFICATION: ☐ I ☐ II	DISPOSITION: ☐ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel ☐ Defer	WHEN TO IMPLEMENT CHANGE: ☐ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change
		IS AN ATP REQUIRED ☐ Yes ☐ No		
		APPROVAL: TRG ¹ /CCB ²		Date: <u>5/7/93</u> Date: <u>5/4/93</u> Date: <u>5/4/93</u>
		ASSIGNED TO: _____		Phone No.: _____
		INFORM PROCEDURE WRITERS: <u>Paul Randall</u> ☐ Per Telecon Date: <u>5/4/93</u>		
	3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None <u>TIME INTERVAL CHANGED TO 12 MIN. DUE TO 3 SEC SCREEN DISPLAY UPDATE RATE.</u> <u>(CANNOT DO 10 MIN.)</u>		
		CHANGE COMPLETED BY: <u>T. Laney</u> Date: <u>5/5/93</u> Phone No.: _____		
	4.	CHANGE VERIFIED BY: <u>T. Laney</u> Date: <u>5/5/93</u> Phone No.: <u>6-0126</u>		

1. HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS SOFTWARE</u> VERSION/REVISION: _____ CR TYPE: ☒ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER		R O T A T I O N A L
DESCRIPTION OF CHANGE: ☐ See Attached 1. LINK "RESET ABOUT COIL" ON TEMPALM SCREEN 2. LINK "WITH2" BUTTON ON ASMAIN SCREEN 3. CHANGE SCREEN "TANK" PER SCREEN LOCATED IN DIRECTORY JLIST IN WAREHOOM. 4. CHANGE TANK SCREEN MITIC TAG FROM XXX178 TO XXX17C JUSTIFICATION FOR CHANGE: ☐ See Attached CORRECT ERRORS		
HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE: _____ ☐ FDC ☐ ATP ☐ SDO ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel List ☐ DACS Software ☐ Other		
PRIORITY: [2] 1 = Mandatory 2 = Important 3 = Nice to have ORIGINATOR: <u>T. LAWLEY</u> Date: <u>5/11/93</u> Phone No.: <u>6-0126</u>		
2. CLASSIFICATION: ☒ U ☐ S ☐ C ☐ R DISPOSITION: ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel WHEN TO IMPLEMENT CHANGE: ☒ Upon completion of change ☐ Yes ☐ No IS AN ATP REQUIRED: ☐ Yes ☒ No		B C C
APPROVAL: <u>[Signature]</u> TRG/CCB2 Date: <u>5/11/93</u> Date: <u>5/11/93</u> Date: <u>5/11/93</u>		
ASSIGNED TO: <u>J. MARTIN (CANL)</u> Phone No.: _____ INFORM PROCEDURE WRITERS: <u>[Signature]</u> Date: <u>5/11/93</u>		
3. COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None Ver 1.9.8		
4. CHANGE COMPLETED BY: <u>[Signature]</u> Date: <u>5/11/93</u> Phone No. <u>702/295-3143</u> CHANGE VERIFIED BY: <u>[Signature]</u>		6.

Sheet 1 of 1

CR No.: 185

Change Request

HYDROGEN MITIGATION TEST PROJECT

ORIGINAL

HYDROGEN MITIGATION TEST PROJECT

ORIGINAL

Change Request

CR No.: 186

Sheet 1 of 1

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS</u>			
		VERSION/REVISION: _____			
		CR TYPE: ☐ DEVELOPMENT ☒ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER			
		DESCRIPTION OF CHANGE: ☐ See Attached 1. Remove the low alarm from tag NITKSY11. 2. FOR ROLLOVER SCREEN, LINK FTE50002 TO LOW ALARM			
		JUSTIFICATION FOR CHANGE: ☐ See Attached 1. Not using MOS devices for alarms. 2. TAG NOT LINKED			
	HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE: ☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☒ ARP ☒ I/O Channel List ☒ DACS Software ☐ Other _____				
	PRIORITY: [2] 1=Mandatory 2=Important 3=Nice to have				
	ORIGINATOR: <u>Rube mendosa</u> Date: <u>5, 11, 93</u> Phone No.: <u>373-2007</u>				
C C B	2.	CLASSIFICATION: ☐ I ☒ II	DISPOSITION: ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel ☐ Defer	WHEN TO IMPLEMENT CHANGE: ☒ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change	IS AN ATP REQUIRED ☐ Yes ☒ No
		APPROVAL: TRG ¹ /CCB ²	<u>J. Caney</u> Date: <u>5/11/93</u> <u>A.F. Vargo</u> Date: <u>5/11/93</u> <u>J.P. [Signature]</u> Date: <u>5/11/93</u>		
		ASSIGNED TO: <u>J. MARTIN (LANC)</u> Phone No.: _____			
		INFORM PROCEDURE WRITERS: <u>Paul Randall</u> ☐ Per Telecon Date: <u>5/11/93</u>			
		3. COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None Ver 1.9.8			
	CHANGE COMPLETED BY: <u>Rene Echave</u> Date: <u>5/11/93</u> Phone No. <u>702/295-3143</u>				
	4. CHANGE VERIFIED BY: <u>Rube mendosa</u> Date: <u>5/11/93</u> Phone No. <u>509 373-2007</u>				

HYDROGEN MITIGATION TEST PROJECT

ORIGINAL

Change Request

CR No.: 187

Sheet 1 of 1

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS SOFTWARE</u>			
	VERSION/REVISION: _____				
	CR TYPE: ☐ DEVELOPMENT ☒ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER				
	DESCRIPTION OF CHANGE: ☐ See Attached <u>REDO THE FOLLOWING SCREENS:</u> HUTALARM PUMP PUMPALARM DACS STRNALM MAP CSMAIN IOSTATUS				
	JUSTIFICATION FOR CHANGE: ☐ See Attached <u>SCREENS ARE CORRUPT (LINKAGE PROBLEMS)</u>				
C C B	HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:				
	☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel List ☒ DACS Software ☐ Other _____				
	PRIORITY: ☒ 1 = Mandatory 2 = Important 3 = Nice to have				
	ORIGINATOR: <u>T. Cane</u> Date: <u>5/11/93</u> Phone No.: <u>6-0126</u>				
	2. CLASSIFICATION: ☐ I ☒ II DISPOSITION: ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel ☐ Defer WHEN TO IMPLEMENT CHANGE: ☒ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change IS AN ATP REQUIRED: ☐ Yes ☒ No				
APPROVAL: <u>T. Cane</u> Date: <u>5/11/93</u> <u>G.F. Vargon</u> Date: <u>5/11/93</u> <u>JA H</u> Date: <u>5/11/93</u> TRG ¹ /CCB ²					
ASSIGNED TO: <u>J. MARTIN (LANL)</u> Phone No.: _____					
INFORM PROCEDURE WRITERS: <u>Paul Randall</u> ☐ Per Telecon Date: <u>5/11/93</u>					
3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None				
	CHANGE COMPLETED BY: <u>[Signature]</u> Date: <u>5/15/93</u> Phone No.: _____ <u>8/13/93</u>				
4.	CHANGE VERIFIED BY: <u>A. Smith</u> Date: <u>5/15/93</u> Phone No.: _____				

HYDROGEN MITIGATION TEST PROJECT

ORIGINAL

Change Request

CR No.: 188

Sheet 1 of 1

O R I G I N A T O R	1. HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS SOFTWARE</u>
	VERSION/REVISION: _____
	CR TYPE: ☐ DEVELOPMENT ☒ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER
	DESCRIPTION OF CHANGE: ☐ See Attached FIX STATION 8 STARTUP. STATION 8 SHOULD BOOT TO MAIN TEST SCREEN. INSTEAD IT BOOTS TO WELCOME SCREEN REQUIRING GOING TO DIRECTORY TO GET TO TEST SCREEN.
	JUSTIFICATION FOR CHANGE: ☐ See Attached MAIN TEST SCREEN SHOULD SHOW ON SCREEN AFTER STATION 8 STARTUP.
	HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE: ☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel List ☒ DACS Software ☐ Other _____
	PRIORITY: [2] 1=Mandatory 2=Important 3=Nice to have ORIGINATOR: <u>T. Carey</u> Date: <u>5/11/93</u> Phone No.: <u>6-0126</u>

C C B	2. CLASSIFICATION: ☐ ☒ DISPOSITION: ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel ☐ Defer	WHEN TO IMPLEMENT CHANGE: ☒ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change	IS AN ATP REQUIRED ☐ Yes ☒ No	
	APPROVAL: <u>J. Carey</u> TRG ¹ /CCB ² <u>H.F. Vargo</u> <u>JA P. V.</u>	Date: <u>5/11/93</u> Date: <u>5/11/93</u> Date: <u>5/11/93</u>		
	ASSIGNED TO: <u>J. MARTIN (LANC)</u>	Phone No.: _____		
	INFORM PROCEDURE WRITERS: <u>Paul Cardall</u>	☐ Per Telecon Date: <u>5/11/93</u>		

3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None Ver 1.9.8
	CHANGE COMPLETED BY: <u>Pere Echaz</u> Date: <u>5/11/93</u> Phone No. <u>702/295-3143</u>

4.	CHANGE VERIFIED BY: <u>Rube mendez</u> Date: <u>5/11/93</u> Phone No. <u>509 373-2007</u>
----	---

HYDROGEN MITIGATION TEST PROJECT

Change Request

original.

CR No.: 189

Sheet 1 of 1

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS Software</u>																		
	VERSION/REVISION: _____																			
	CR TYPE: ☒ DEVELOPMENT ☐ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER <u>For ATTN GC(2)</u>																			
	DESCRIPTION OF CHANGE: ☐ See Attached <u>Add PLC Ladder Logic, Modify ASCII Basic Module Program, Add necessary Genesis Strategy blocks, and modify screens to allow the logging and display of GC2 gas data. (SEE R. MENDOZA OR J. LECHLEY REGARDING SPECIFIC SCREEN OR ACCURACY NEEDS).</u>																			
	JUSTIFICATION FOR CHANGE: ☐ See Attached <u>This data provides a valuable gas measurement. This section will need to be added to ATP 46 since it will be displayed on DACS if it is to be used eventually. It should be exempted by ATP 46 since it is not a safety related function.</u>																			
C C B	HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:																			
	☐ FDC ☒ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☒ VO Channel List ☒ DACS Software ☐ Other <u>GC(2)</u>																			
	PRIORITY: ☒ 1 = Mandatory 2 = Important 3 = Nice to have																			
	ORIGINATOR: <u>J. Martin</u> Date: <u>5/18/93</u> Phone No.: <u>762 285 0252</u>																			
	<table border="1"> <thead> <tr> <th>CLASSIFICATION:</th> <th>DISPOSITION:</th> <th>WHEN TO IMPLEMENT CHANGE:</th> <th>IS AN ATP REQUIRED</th> </tr> </thead> <tbody> <tr> <td>☐ ☒ ☐</td> <td>☒ Approve ☐ Approve/Modify</td> <td>☒ Upon completion of change</td> <td>☒ Yes</td> </tr> <tr> <td></td> <td>☐ Reject ☐ Cancel</td> <td>☐ Prepare change and wait for approval</td> <td>☒ No</td> </tr> <tr> <td></td> <td>☐ Defer</td> <td>☐ At next mandatory change</td> <td><u>Not Necessary</u></td> </tr> </tbody> </table>					CLASSIFICATION:	DISPOSITION:	WHEN TO IMPLEMENT CHANGE:	IS AN ATP REQUIRED	☐ ☒ ☐	☒ Approve ☐ Approve/Modify	☒ Upon completion of change	☒ Yes		☐ Reject ☐ Cancel	☐ Prepare change and wait for approval	☒ No		☐ Defer	☐ At next mandatory change
CLASSIFICATION:	DISPOSITION:	WHEN TO IMPLEMENT CHANGE:	IS AN ATP REQUIRED																	
☐ ☒ ☐	☒ Approve ☐ Approve/Modify	☒ Upon completion of change	☒ Yes																	
	☐ Reject ☐ Cancel	☐ Prepare change and wait for approval	☒ No																	
	☐ Defer	☐ At next mandatory change	<u>Not Necessary</u>																	
APPROVAL: <u>H.T. Vangph</u> Date: <u>5/20/93</u> <u>Greg</u> Date: <u>5/25/93</u> <u>John A. P.</u> Date: <u>5/20/93</u> TRG ¹ /CCB ²																				
ASSIGNED TO: _____ Phone No.: _____																				
INFORM PROCEDURE WRITERS: <u>Hobocinski</u> ☐ Per Telecon Date: <u>5/25/93</u>																				
3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None <u>V3.02</u>																			
	CHANGE COMPLETED BY: <u>J. Martin</u> Date: <u>5/19/93</u> Phone No.: _____																			
4.	CHANGE VERIFIED BY: <u>D.C. Larson</u> Date: <u>6/9/93</u> Phone No.: _____																			

HYDROGEN MITIGATION TEST PROJECT

ORIGINAL

Change Request

CR No.: 190

Sheet 1 of 2

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS Hardware Configuration</u>			
	VERSION/REVISION: _____				
	CR TYPE: ☐ DEVELOPMENT ☐ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER				
	DESCRIPTION OF CHANGE: ☒ See Attached diagram 1. Reconfigure Station 8: remove bus mouse, replace mouse w/ serial mouse on COM2. Reconfigure Station 7: replace bus mouse w/ serial mouse on COM2 (same as Sta. 8). Configure serial I/O on COM1 for station 7 to back up station 5 or station 8, according to attached diagram. 2. Rean configuration software to recognize above changes.				
C C B	JUSTIFICATION FOR CHANGE: ☐ See Attached				
	1. Configure All stations with the same serial I/O 2. Remove memory conflicts caused by bus mouse (station 7 & 8)				
	HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:				
	☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel List ☒ DACS Software ☒ Other <u>wiring for Computers</u>				
PRIORITY: ☒ 1 = Mandatory 2 = Important 3 = Nice to have					
ORIGINATOR: <u>T. POONDS (CALL)</u> Date: <u>5, 20, 93</u> Phone No.: _____					
C C B	2.	CLASSIFICATION:	DISPOSITION:	WHEN TO IMPLEMENT CHANGE:	IS AN ATP REQUIRED
	☐ 1 ☒ 4		☒ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel ☐ Defer	☒ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change	☐ Yes ☒ No
	APPROVAL:		<u>J. Carney</u> <u>George F. Vangon</u> <u>Jeffrey A. Aggen</u>		Date: <u>5, 25, 93</u> Date: <u>5, 20, 93</u> Date: <u>5, 20, 93</u>
	TRG ¹ /CCB ²		ASSIGNED TO: <u>J. Martin</u> Phone No.: <u>(702) 295-0252</u> INFORM PROCEDURE WRITERS: <u>Jobocumb</u> ☐ Per Telecon Date: <u>5, 25, 93</u>		
3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None				
	CHANGE COMPLETED BY: <u>[Signature]</u> Date: <u>8, 24, 93</u> Phone No.: _____				
4.	CHANGE VERIFIED BY: <u>[Signature]</u> Date: <u>8, 25, 93</u> Phone No.: <u>546-5014</u>				

ORIGINAL

HYDROGEN MITIGATION TEST PROJECT

Change Request (Continuation Sheet)

CR No.: 190

Sheet 2 of 2

[] Description [] Justification [] Change Comments

Signature:

Date: / /

HYDROGEN MITIGATION TEST PROJECT

ORIGINAL

Change Request

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CR No.: 191

Sheet 1 of

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>ASCI BASIC PROGRAM, DACS Software, DACS Study</u>			
	VERSION/REVISION: _____				
	CR TYPE: ☐ DEVELOPMENT ☒ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER				
	DESCRIPTION OF CHANGE: ☐ See Attached <u>Change scaling of mass spec Hydrogen measurement to allow 4 decimal points of precision. The scaling is done in the ASCII Basic program. Change display scale is 10 strategy to reflect the range change.</u>				
C C B		JUSTIFICATION FOR CHANGE: ☐ See Attached <u>Currently, only 3 decimal point precision is provided by DACS even though the mass spec provides greater precision.</u>			
		HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:			
		☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☒ I/O Channel List ☒ DACS Software ☒ Other <u>ASCII Basic Program</u>			
		PRIORITY: <u>[2]</u> 1=Mandatory 2=Important 3=Nice to have			
	ORIGINATOR:	<u>Jeff Martin</u>	Date: <u>5/20/93</u>	Phone No.: _____	
C C B	2.	CLASSIFICATION:	DISPOSITION:	WHEN TO IMPLEMENT CHANGE:	
		☐ I ☒ II	☒ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel ☐ Defer	☒ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change	IS AN ATP REQUIRED
					☐ Yes ☒ No
		APPROVAL:	Date: <u>5/25/93</u>		
		Date: <u>5/20/93</u>			
		Date: <u>5/20/93</u>			
		ASSIGNED TO: <u>Jeff Martin</u> Phone No.: <u>(702) 295-0252</u>			
		INFORM PROCEDURE WRITERS: <u>Hobson</u> ☐ Per Telecon Date: <u>5/25/93</u>			
	3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None			
		CHANGE COMPLETED BY: <u>Jeff Martin</u> Date: <u>8/31/93</u> Phone No.: _____			
	4.	CHANGE VERIFIED BY: <u>Jeff Martin</u> Date: <u>8/31/93</u> Phone No.: _____			

HYDROGEN MITIGATION TEST PROJECT

Change Request

CR No.: 172

Sheet 1 of

Canceled 6-1-93

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS SOFTWARE</u>		
		VERSION/REVISION: _____		
		CR TYPE: ☐ DEVELOPMENT ☐ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER		
		DESCRIPTION OF CHANGE: ☐ See Attached 1. CHANGE ABORT LIMIT FOR PUMP RPM TO 940. 2. CHANGE PUMP DISCHARGE PRESSURE; ALARM: FM: 18 PSID TO: 70 PSID ABORT: FM: 21 PSID TO: 82 PSID 3. CHANGE MOTOR AMP ^{ALARM} ABORT LIMIT AND ^{ALARM} ABORT LIMIT FM: 120/140 TO: 160/200		
		JUSTIFICATION FOR CHANGE: ☐ See Attached PUMP BUMPING WITH PLUGGING INDICATION ALLOWS SPEED TO INCREASE TO 920 RPM. RPM ABORT LIMIT WILL CHANGE THE LIMIT THAT IS CURRENTLY REQUIRED VIA CR 170.		
		HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:		
		☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☒ ARP ☒ I/O Channel List ☒ DACS Software ☐ Other _____		
		PRIORITY: ☒ 1 = Mandatory 2 = Important 3 = Nice to have ORIGINATOR: <u>LARRY EFFERDING</u> Date: <u>5/25/93</u> Phone No.: <u>6-5377</u>		
C C B	2.	CLASSIFICATION:	DISPOSITION:	WHEN TO IMPLEMENT CHANGE:
		☐ I ☒ II ☐ III	☒ Approve ☐ Approve/Modify <u>6-1-93</u> ☐ Reject ☒ Cancel ☐ Defer	☒ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change
		IS AN ATP REQUIRED		☒ Yes ☐ No
		APPROVAL:		Date: <u>5/25/93</u>
		TRG ¹ /CCB ² <u>J. Camp</u> <u>H. L. Vancor</u> <u>Ken - Eckert</u>		Date: <u>5/25/93</u> Date: <u>5/25/93</u> Date: <u>5/25/93</u>
		ASSIGNED TO:		Phone No.: _____
		INFORM PROCEDURE WRITERS: <u>Paul Crawford</u>		☐ Per Telecon Date: <u>5/25/93</u>
	3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None		
		CHANGE COMPLETED BY: _____ Date: ____/____/____ Phone No. _____		
	4.	CHANGE VERIFIED BY: _____ Date: ____/____/____ Phone No. _____		

HYDROGEN MITIGATION TEST PROJECT

ORIGINAL

Change Request

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Sheet 1 of 1

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>AREA RADIATION MONITOR (ARM) SIGNAL</u> <u>ASSIGNMENTS TO DACS</u>			
	VERSION/REVISION: _____				
	CR TYPE: ☐ DEVELOPMENT ☐ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER				
	DESCRIPTION OF CHANGE: ☐ See Attached CHANGE "INST" FAIL-ALARM FROM 8.2.4.13 TO 8.2.4.12 (+24VDC = ARMALM) CHANGE "ALERT" ALARM FROM 8.2.4.12 TO 8.2.4.11 (+24VDC = ALARM) CHANGE "HIGH" ALARM FROM 8.2.4.11 TO 8.2.4.13 (+24VDC = ALARM) TAGS AFFECTED: ARMFAIL (INST. FAIL ALARM) ARMALM (ALERT HMT GAMMA RADIATION) ARMABORT (HIGH HMT GAMMA RADIATION)				
C C B	JUSTIFICATION FOR CHANGE: ☐ See Attached <u>REQUIRED TO SYNCHRONIZE HARDWARE WITH SOFTWARE (AS BUILT)</u>				
	HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:				
	☐ FDC ☒ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☒ I/O Channel List ☒ DACS Software ☐ Other _____				
	PRIORITY: ☐ 1 = Mandatory 2 = Important 3 = Nice to have ORIGINATOR: <u>G.F. Vargo</u> Date: <u>5, 29, 93</u> Phone No.: <u>6-5387</u>				
C C B	2.	CLASSIFICATION:	DISPOSITION:	WHEN TO IMPLEMENT CHANGE:	
		☐ I ☐ II	☒ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel ☐ Defer	☐ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change	IS AN ATP REQUIRED ☒ Yes ☒ No
	APPROVAL:		Date: <u>5, 29, 93</u>		
	TRG ¹ /CCS ²		Date: <u>5, 28, 93</u>		
C C B	ASSIGNED TO: <u>L.A.L.</u>		Phone No.: _____		
	INFORM PROCEDURE WRITERS: <u>Paul Cranball</u>		☐ Per Telecon Date: <u>6, 11, 93</u>		
	3. COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None <u>ATP'd under ATP-046 for ARMALM, ARMFAIL, and ARMABORT A 8-25-93</u> <u>per AC Zuehlke.</u>				
	CHANGE COMPLETED BY: <u>Don Echave</u>		Date: <u>5, 27, 93</u> Phone No. _____		
C C B	4.	CHANGE VERIFIED BY: <u>P. Carter</u>		Date: <u>5, 28, 93</u> Phone No. _____	

HYDROGEN MITIGATION TEST PROJECT

Change Request

original

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Sheet 1 of 426

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS SOFTWARE</u>		
	VERSION/REVISION: _____			
	CR TYPE: ☐ DEVELOPMENT ☐ CORRECT PROBLEM ☒ ENHANCEMENT ☐ OTHER			
	DESCRIPTION OF CHANGE: ☒ See Attached 1. CHANGE UPPER ABORT LIMIT TO 1020 RPM (VERIFY) (20 RPM RPM ABOVE MAX ALLOWED SET SPEED) 2. CHANGE PUMP DISCHARGE PRESSURES (ALARM & ABORT) TO BE INPUT BASED ON ATTACHED EQUATIONS. 3. CHANGE THE INITIALIZATION OF PDPBASE. UPDATE VALUE ON A CONTINUOUS BASIS UNTIL PUMP IS ENABLED.			
C C B	JUSTIFICATION FOR CHANGE: ☐ See Attached REQUIRE CHANGES FOR PUMP BUMP & PHASE B.			
	HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:			
	☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ ACP ☒ ARP ☒ I/O Channel List ☒ DACS Software ☐ Other _____			
	PRIORITY: ☐ 1 = Mandatory 2 = important 3 = Nice to have ORIGINATOR: <u>LARRY EFFERDING</u> Date: <u>6/1/93</u> Phone No.: <u>6-5377</u>			
C C B	2.	CLASSIFICATION:	DISPOSITION:	WHEN TO IMPLEMENT CHANGE:
	☐ I ☒ II		☒ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel ☐ Defer	☒ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change
	IS AN ATP REQUIRED		☒ Yes ☐ No	
	APPROVAL:		Date: <u>6/1/93</u> TRG ¹ /CCB ² <u>T. C. VARGO</u> <u>T. C. VARGO</u> <u>J. M. W. F. J. W. F.</u> Date: <u>6/1/93</u> Date: <u>6/1/93</u>	
ASSIGNED TO:		Phone No.:		
INFORM PROCEDURE WRITERS:		<u>Paul Crawford</u> ☐ Per Telecon Date: <u>6/1/93</u>		
C C B	3.	COMPLETED CHANGE COMMENTS: ☒ See Attached ☐ None Page 5-6 have the correct version of the curves used to determine discharge pressure and motor current alarm points. The value of X on page 2 was found to be 5.25 seconds. The delay time will therefore be 10.3 seconds. V202 of TEST V202 of MOTOR ATP's under ATP-046 per AC 2-416-4 8-25-93		
	CHANGE COMPLETED BY:		Date: <u>6/9/93</u> Phone No.: _____	
C C B	4.	CHANGE VERIFIED BY: <u>J. M. W. F.</u> Date: <u>6/9/93</u> Phone No.: _____		

HYDROGEN MITIGATION TEST PROJECT
Change Request (Continuation Sheet)

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Sheet 2 of 4

[] Description [] Justification [] Change Comments

4. A. PERFORM TEST TO DETERMINE HOW LONG (TIME) IT TAKES FOR STATION 8 TO COMMUNICATE TO ~~DO~~ PLC.

THIS VALUE IS X

B. CALCULATE DECAY TIME:

$$(X) 1.2 + 4 \text{ sec.} = \text{DECAY TIME. (DT)}$$

INPUT
GRAPH
FOR CURRENT
ALARM & ABORT

Signature: *P. Carver*

Date: 6/1/93

SY-101 Pump Discharge Pressure "Best-Estimate" (Mixed Condition)

SY-101 Motor Current "Best-Estimate" (Early Operation) ("shear-thinning")

CR 194
 4/4

SY-101 Pump Discharge Pressure

CR 194
5/6

CR 194
6/6

SY-101 Pump Current

HYDROGEN MITIGATION TEST PROJECT

Change Request

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original.

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Sheet 1 of

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS</u> VERSION/REVISION: _____ CR TYPE: ☐ DEVELOPMENT ☐ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER DESCRIPTION OF CHANGE: ☐ See Attached 1. Remove tags AIR17B01, BYJYSO10, and BYKSYO10. 2. Remove tags for VDTT high temperature aborts. 3. Add the thermocouple elevations to the MIT17C thermocouple tag descriptions (elevations are attached). 4. Modify screen MIT17C to correct the thermocouple elevations for thermocouples 18-22. 5. Incorporate J. Lechelt's tank screen into system (currently TANKNEW.GRP). 6. Modify the MIT17B and MIT17C screens to display strains with four digits i.e. "-232". 7. Modify the IOSTATUS screen to display IO #2 status. 8. Fix "PUMP discharge" link on TEMPALM screen. 9. CHANGE STATION 8 LEVEL 3 PASSWORD TO BE THE SAME AS STATION 5. JUSTIFICATION FOR CHANGE: ☐ See Attached 1. These tags are no longer being used (they are redundant hydrogen alarms set at 0.8%). 2. There are no longer aborts for the VDTT temperatures. 3. Currently the tag descriptions do not have correct elevations (they only say "xxx inches") 4. The elevations for T/Cs 18-22 are incorrect on screen MIT17C. 5. There are errors in the current TANK screen. This new screen has been corrected. 6. Currently, the screens are capable of displaying only three digits i.e. "-23". 7. IO #2 is now being used but its status is not displayed on the IOSTATUS screen. 8. Currently, link is made to MPR12A.GRP which does not exist - should be PUMP.GRP. 9. CONSISTANCY HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE: ☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☒ I/O Channel List ☒ DACS Software ☐ Other _____ PRIORITY: ☒ 2 1=Mandatory 2=Important 3=Nice to have ORIGINATOR: R.E. Mendoza Date: 6 / 29 / 93 Phone No.: 373-2007		
	C C B	2.	CLASSIFICATION: ☐ I ☒ II DISPOSITION: ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel ☐ Defer WHEN TO IMPLEMENT CHANGE: ☒ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change IS AN ATP REQUIRED: ☐ Yes ☒ No APPROVAL: <u>J. Carey for G. BEAR</u> Date: 6/29/93 <u>J. H. Vargo</u> Date: 6/29/93 <u>J. H. Vargo</u> Date: 6/29/93 ASSIGNED TO: _____ Phone No.: _____ INFORM PROCEDURE WRITERS: ☐ Per Telecon Date: 1 / 1	
		3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None 10. Also added VR22040, VR22050, and VR22020 tags to Pump screen. 11. Removed color change for BIPND's, FIPND's and PITND's on pump screen since these tags do not have associated results associated with them. CHANGE COMPLETED BY: <u>J. H. Vargo</u> Date: 8/31/93 Phone No.: _____ Verified by: <u>J. H. Vargo</u> 8/31/93	

Change Request

original

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Sheet 1 of

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS Software</u>	BEST AVAILABLE COPY	
	VERSION/REVISION: _____			
	CR TYPE: ☒ DEVELOPMENT ☐ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER			
	DESCRIPTION OF CHANGE: ☐ See Attached <u>Change range capability of GC2-H2 controller from 0-9909 ppm to 0-10%</u>			
	JUSTIFICATION FOR CHANGE: ☐ See Attached <u>Hardware work during the trip was small with spec.</u>			
C C B	HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:			
	☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☒ I/O Channel List ☒ DACS Software ☐ Other _____			
	PRIORITY: ☐ 1 ☒ 2 ☐ 3 1=Mandatory 2=Important 3=Nice to have			
	ORIGINATOR: <u>J. L. Martin</u> Date: <u>6/29/93</u> Phone No.: <u>545-4504</u>			
	<div style="display: flex; justify-content: space-between;"> <div> CLASSIFICATION: ☐ I ☒ II </div> <div> DISPOSITION: ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel ☐ Defer </div> <div> WHEN TO IMPLEMENT CHANGE: ☐ Upon completion of change ☒ Prepare change and wait for approval ☐ At next mandatory change </div> <div> IS AN ATP REQUIRED ☒ Yes ☐ No </div> </div>			
APPROVAL: <u>J. Caney for G. BEAR</u> Date: <u>6/29/93</u> <u>J. Martin</u> Date: <u>6/29/93</u> <u>G. T. Vargo</u> Date: <u>6/29/93</u>				
ASSIGNED TO: _____ Phone No.: _____				
INFORM PROCEDURE WRITERS: _____ ☐ Per Telecon Date: <u>7/1/93</u>				
3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None			
	<u>This was satisfactory ATP'd under ATP-C6 2, per JC Zuckler.</u>			
	<u>A 8-25-93.</u>			
4.	CHANGE COMPLETED BY: <u>J. Martin</u> Date: <u>8/31/93</u> Phone No. _____			
	CHANGE VERIFIED BY: <u>A. L. Leland</u> Date: <u>8/31/93</u> Phone No. _____			

HYDROGEN MITIGATION TEST PROJECT

Change Request

original.

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Sheet 1 of 1

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS SOFTWARE</u>			
	VERSION/REVISION: <u>2.06</u>				
	CR TYPE: ☐ DEVELOPMENT ☒ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER				
	DESCRIPTION OF CHANGE: ☐ See Attached <u>REMOVE AUTO/MANUAL BLOCK REPORT</u>				
C C B		JUSTIFICATION FOR CHANGE: ☐ See Attached <u>NOT REQUIRED</u>			
		HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE: ☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel List ☒ DACS Software ☐ Other _____			
		PRIORITY: ☐ 1 ☒ 2 ☐ 3 1=Mandatory 2=Important 3=Nice to have			
		ORIGINATOR: <u>D. LARSEN</u> Date: <u>7, 6, 93</u> Phone No.: <u>323-3296</u>			
	2.	CLASSIFICATION: ☐ I ☒ II	DISPOSITION: ☒ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel ☐ Defer	WHEN TO IMPLEMENT CHANGE: ☒ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change	IS AN ATP REQUIRED ☐ Yes ☒ No
		APPROVAL: TRG ¹ /CCB ²	<u>J. Canes Jr</u> Date: <u>7, 6, 93</u> <u>A. F. Vargo</u> Date: <u>7, 6, 93</u> <u>John D. P.</u> Date: <u>7, 6, 93</u>		
		ASSIGNED TO: <u>LANL Jeff Martin</u>	Phone No.: _____		
		INFORM PROCEDURE WRITERS: <u>H. Brown</u>	[] Per Telecon Date: <u>7/13/93</u>		
	3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None			
		CHANGE COMPLETED BY: <u>J. Martin</u>	Date: <u>8/13/93</u> Phone No.: _____		
	4.	CHANGE VERIFIED BY: <u>E. J. Bank</u>	Date: <u>8/31/93</u> Phone No.: _____		

HYDROGEN MITIGATION TEST PROJECT

Change Request

original.

CR No.: 198

Sheet 1 of 1

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: DACS TEST STRATEGY/GASSUM SCREEN		
		VERSION/REVISION: _____		
		CR TYPE: ☐ DEVELOPMENT ☒ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER		
		DESCRIPTION OF CHANGE: ☐ See Attached		
		1. Modify the Kinetics computer program to send FTIR data to the DACS so that the lowest value is 1 ppm (highest value 9999 ppm). 2. Change the format for displayed values of ammonia and nitrous oxide from XX.XX to XXXX on the screen GASSUM. 3. Change the format for displayed values of hydrogen for GC2 and GC3 from XX.XX to XXXX on the screen GASSUM. 4. Modify, if necessary, the TEST strategy for recording history file MASS, to accept these gas concentrations properly (tags FT-NH3C, FT-N2OC, GC2-H2, and GC3-H2). Note: The screen TANK shows the display limits of GC2, GC3 and FTIR gases to be 0-1000 ppm. IF RANGE WILL NOT WORK, USE "FLOATING POINT" CHANGE FROM FILES AS REQUIRED.		
		JUSTIFICATION FOR CHANGE: ☐ See Attached		
		Modify Kinetics computer program, TEST strategy and GASSUM screen to accommodate up to 9999 ppm of FTIR, GC2 and GC3 gases.		
		HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:		
		☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel List ☒ DACS Software ☐ Other _____		
		PRIORITY: ☐ 1 ☐ 2 ☐ 3 1=Mandatory 2=Important 3=Nice to have		
		ORIGINATOR: JEANNE LECHLT Date: 7/6/93 Phone No.: 373-3296		
C C B	2.	CLASSIFICATION:	DISPOSITION:	WHEN TO IMPLEMENT CHANGE:
		☐ I ☒ II	☒ Approve ☐ Approve/Modify ☐ Reject ☐ Cancel ☐ Defer	☒ Upon completion of change ☐ Prepare change and wait for approval ☐ At next mandatory change
				IS AN ATP REQUIRED
				☐ Yes ☒ No
		APPROVAL:		
		TRG ¹ /CCB ²	Date: 7/6/93 Date: 7/6/93 Date: 7/6/93	
		ASSIGNED TO:	Phone No.:	
		INFORM PROCEDURE WRITERS:	[] Per Telecon Date: 7/13/93	
3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None			
	CHANGE COMPLETED BY: _____ Date: 8/13/93 Phone No.:			
4.	CHANGE VERIFIED BY: _____ Date: 8/13/93 Phone No.:			

HYDROGEN MITIGATION TEST PROJECT

Change Request

original.

CR No.: 199

Sheet 1 of 1

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS HARDWARE CONFIGURATION</u>																						
	VERSION/REVISION: _____																							
	CR TYPE: ☐ DEVELOPMENT ☒ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER																							
	DESCRIPTION OF CHANGE: ☐ See Attached <u>Reconfigure All DACS & 275D RSS stations ARCNET from present hybrid configuration, to a "STAR" configuration</u>																							
	JUSTIFICATION FOR CHANGE: ☐ See Attached <u>Network errors will be alleviated by switching to star config.</u>																							
C C B	HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE:																							
	☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel List ☐ DACS Software ☒ Other <u>ARCNET CARDS</u>																							
	PRIORITY: ☐ 1 ☒ 2 ☐ 3 1=Mandatory 2=Important 3=Nice to have																							
	ORIGINATOR: <u>Thomas Pounds</u> Date: <u>7/6/93</u> Phone No.: <u>(505) 699-1592</u>																							
	<table border="0"> <tr> <td>2.</td> <td>CLASSIFICATION:</td> <td>DISPOSITION:</td> <td>WHEN TO IMPLEMENT CHANGE:</td> <td>IS AN ATP REQUIRED</td> </tr> <tr> <td></td> <td>☐ 1 ☒ 2</td> <td>☒ Approve ☐ Approve/Modify</td> <td>☒ Upon completion of change</td> <td>☐ Yes</td> </tr> <tr> <td></td> <td></td> <td>☐ Reject ☐ Cancel</td> <td>☐ Prepare change and wait for approval</td> <td>☒ No</td> </tr> <tr> <td></td> <td></td> <td>☐ Defer</td> <td>☐ At next mandatory change</td> <td></td> </tr> </table>					2.	CLASSIFICATION:	DISPOSITION:	WHEN TO IMPLEMENT CHANGE:	IS AN ATP REQUIRED		☐ 1 ☒ 2	☒ Approve ☐ Approve/Modify	☒ Upon completion of change	☐ Yes			☐ Reject ☐ Cancel	☐ Prepare change and wait for approval	☒ No			☐ Defer	☐ At next mandatory change
2.	CLASSIFICATION:	DISPOSITION:	WHEN TO IMPLEMENT CHANGE:	IS AN ATP REQUIRED																				
	☐ 1 ☒ 2	☒ Approve ☐ Approve/Modify	☒ Upon completion of change	☐ Yes																				
		☐ Reject ☐ Cancel	☐ Prepare change and wait for approval	☒ No																				
		☐ Defer	☐ At next mandatory change																					
<table border="0"> <tr> <td>APPROVAL:</td> <td><u>G.F. Vargo</u></td> <td>Date: <u>7/6/93</u></td> </tr> <tr> <td>TRG¹/CCB²</td> <td><u>T. Carey</u></td> <td>Date: <u>7/6/93</u></td> </tr> <tr> <td></td> <td><u>John A.H. P.</u></td> <td>Date: <u>7/6/93</u></td> </tr> </table>					APPROVAL:	<u>G.F. Vargo</u>	Date: <u>7/6/93</u>	TRG ¹ /CCB ²	<u>T. Carey</u>	Date: <u>7/6/93</u>		<u>John A.H. P.</u>	Date: <u>7/6/93</u>											
APPROVAL:	<u>G.F. Vargo</u>	Date: <u>7/6/93</u>																						
TRG ¹ /CCB ²	<u>T. Carey</u>	Date: <u>7/6/93</u>																						
	<u>John A.H. P.</u>	Date: <u>7/6/93</u>																						
ASSIGNED TO: <u>T. Martin</u> Phone No.: _____																								
INFORM PROCEDURE WRITERS: <u>Advent</u> ☐ Per Telecon Date: <u>7/13/93</u>																								
3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None																							
	<table border="0"> <tr> <td>CHANGE COMPLETED BY:</td> <td><u>T. Martin</u></td> <td>Date: <u>8/13/93</u></td> <td>Phone No.:</td> </tr> </table>				CHANGE COMPLETED BY:	<u>T. Martin</u>	Date: <u>8/13/93</u>	Phone No.:																
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4.	<table border="0"> <tr> <td>CHANGE VERIFIED BY:</td> <td><u>TL</u></td> <td>Date: <u>8/13/93</u></td> <td>Phone No.:</td> </tr> </table>				CHANGE VERIFIED BY:	<u>TL</u>	Date: <u>8/13/93</u>	Phone No.:																
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HYDROGEN MITIGATION TEST PROJECT

ORIGINAL

Change Request

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CR No.: 200

Sheet 1 of

O R I G I N A T O R	1.	HARDWARE/SOFTWARE/DOCUMENT NAME: <u>DACS PLC Logic</u>			
		VERSION/REVISION: _____			
		CR TYPE: ☐ DEVELOPMENT ☒ CORRECT PROBLEM ☐ ENHANCEMENT ☐ OTHER			
		DESCRIPTION OF CHANGE: ☐ See Attached <u>WHILE HYDROGEN SIGNALS SHOW EITHER DROP-OUTS OR NOISE WHICH CAUSES A PLC OUT-OF-RANGE ABORTS. SPORADIC</u> <u>ADD A 1 second timer in the PLC to filter these noise spikes. PLC will only generate an abort if the abort condition is sustained for 1 second or more.</u> JUSTIFICATION FOR CHANGE: ☐ See Attached. <u>Spurious noise on hydrogen can cause an abort during a test.</u> HARDWARE, SOFTWARE, OR DOCUMENTS THAT MUST BE REVISED DUE TO THIS CHANGE: ☐ FDC ☐ ATP ☐ SDD ☐ Phase A TP ☐ Phase B TP ☐ AOP ☐ ARP ☐ I/O Channel List ☐ DACS Software ☒ Other <u>PLC Logic</u> PRIORITY: ☒ 2 1=Mandatory 2=important 3=Nice to have ORIGINATOR: <u>Jeff Martin / Eric Strickland</u> Date: <u>1/19/93</u> Phone No.: _____			
C C B	2.	CLASSIFICATION:	DISPOSITION:	WHEN TO IMPLEMENT CHANGE:	IS AN ATP REQUIRED
		☐ I ☐ II	☐ Approve ☐ Approve/Modify	☐ Upon completion of change	☐ Yes
			☐ Reject ☐ Cancel	☐ Prepare change and wait for approval	☒ No
			☐ Defer	☐ At next mandatory change	
		APPROVAL:		Date: <u>7/9/93</u>	
		TRG ¹ /CCB ²		Date: <u>7/9/93</u>	
		ASSIGNED TO: <u>Jeff Martin</u>		Phone No.: _____	
		INFORM PROCEDURE WRITERS: <u>N/A</u>		[] Per Telecon Date: <u>1/1</u>	
	3.	COMPLETED CHANGE COMMENTS: ☐ See Attached ☐ None			
		CHANGE COMPLETED BY: <u>J. Martin</u> Date: <u>8/31/93</u> Phone No.: _____			
	4.	CHANGE VERIFIED BY: <u>A. H.</u> Date: <u>8/31/93</u> Phone No.: _____			