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ENGINEERING CHANGE NOTICE

1. ECN 647046

Proj. ECN

2. ECN Category (mark one)	3. Originator's Name, Organization, MSIN, and Telephone No.	4. USQ Required?	5. Date
Supplemental [] Direct Revision [X] Change ECN [] Temporary [] Standby [] Supersedure [] Cancel/Void []	GR Porter,NHC,R3-47,2-2648	[] Yes [X] No	March 27, 1998
	6. Project Title/No./Work Order No. Project W-058,RCSTS,N58PM	7. Bldg./Sys./Fac. No. N/A	8. Approval Designator N/A
	9. Document Numbers Changed by this ECN (includes sheet no. and rev.) HNF-1955, Rev 0	10. Related ECN No(s). N/A	11. Related PO No. N/A

12a. Modification Work	12b. Work Package No.	12c. Modification Work Complete	12d. Restored to Original Condition (Temp. or Standby ECN only)
[] Yes (fill out Blk. 12b) [X] No (NA Blks. 12b, 12c, 12d)	N/A	N/A Design Authority/Cog. Engineer Signature & Date	N/A Design Authority/Cog. Engineer Signature & Date

13a. Description of Change

13b. Design Baseline Document? [] Yes [X] No

Revised document to reflect updated information and new listing of additional equipment set points.

14a. Justification (mark one)

Criteria Change	[]	Design Improvement	[]	Environmental	[]	Facility Deactivation	[]
As-Found	[X]	Facilitate Const	[]	Const. Error/Omission	[]	Design Error/Omission	[]

14b. Justification Details

Updated information and design authority approval.

15. Distribution (include name, MSIN, and no. of copies)

See distribution sheet

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ID: 2

A-7900-013-2 (05/96) GEF095

ENGINEERING CHANGE NOTICE

1. ECN (use no. from pg. 1): 647046

16. Design Verification Required	17. Cost Impact				18. Schedule Impact (days)	
	ENGINEERING		CONSTRUCTION			
[] Yes	Additional	[] $	Additional	[] $	Improvement	[]
[X] No	Savings	[] $N/A	Savings	[] $ N/A	Delay	[] N/A

19. Change Impact Review: Indicate the related documents (other than the engineering documents identified on Side 1) that will be affected by the change described in Block 13. Enter the affected document number in Block 20.

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Criticality Specification	[]	Calibration Procedure	[]	Test Procedures/Specification	[]
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Const. Spec.	[]	Engineering Procedure	[]	Human Factor Consideration	[]
Procurement Spec.	[]	Operating Instruction	[]	Computer Software	[]
Vendor Information	[]	Operating Procedure	[]	Electric Circuit Schedule	[]
OM Manual	[] NA DRP	Operational Safety Requirement	[]	ICRS Procedure	[]
FSAR/SAR	[]	IEFD Drawing	[]	Process Control Manual/Plan	[]
Safety Equipment List	[]	Cell Arrangement Drawing	[]	Process Flow Chart	[]
Radiation Work Permit	[]	Essential Material Specification	[]	Purchase Requisition	[]
Environmental Impact Statement	[]	Fac. Proc. Samp. Schedule	[]	Tickler File	[]
Environmental Report	[]	Inspection Plan	[]		[]
Environmental Permit	[]	Inventory Adjustment Request	[]		[]

20. Other Affected Documents: (NOTE: Documents listed below will not be revised by this ECN.) Signatures below indicate that the signing organization has been notified of other affected documents listed below.

Document Number/Revision	Document Number/Revision	Document Number Revision
NONE		

21. Approvals

	Signature	Date		Signature	Date
Design Authority WG Brown	Warren G Brown	3/30/98	Design Agent	NA	NA
Proj. Eng. JL Gilbert	J L Gilbert	3-30-98	PE		
Proj. Mgr. GL Parsons	G L Parsons	3-30-98	QA		
QA	NA	NA	Safety		
Safety			Design		
Environ.			Environ.		
Other			Other		
			DEPARTMENT OF ENERGY		
			Signature or a Control Number that tracks the Approval Signature		
			ADDITIONAL		

W-058 Monitor and Control System Alarm/Shutdown Setpoints

J.L. Gilbert
Numatec Hanford Corporation, Richland, WA 99352
U.S. Department of Energy Contract DE-AC06-96RL13200

EDT/ECN: 647046 UC: 2030
Org Code: 8C473 Charge Code: N58PM
B&R Code: 39EW31301 Total Pages: 87 Kma 3/30/98

Key Words: Project W-058, Alarms, Shutdown, Setpoints, Control system, Cross-Site Transfer System

Abstract: This document identifies the alarm/shutdown setpoints for the Monitor and Control System and individual equipment setpoints for the replacement Cross-Site Transfer System. This information was determined by the design media, design calculations and vendor information and recommendations.

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Release Approval 3/30/98 Date

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Approved for Public Release

RECORD OF REVISION	(1) Document Number HNF-1955	Page ii

(2) Title
W-058 Monitor and Control System Alarm/Shutdown Setpoints

CHANGE CONTROL RECORD

(3) Revision	(4) Description of Change - Replace, Add, and Delete Pages	Authorized for Release (5) Cog. Engr.	(6) Cog. Mgr. Date
0	(7) EDT-623659, 12/12/97		
1 RS	Direct revision by ECN 647046	JL Gilbert	GL Parsons 3-30-98

W-058 MONITOR AND CONTROL SYSTEM (MCS)
ALARM/SHUTDOWN SETPOINTS

DRAWING NO.	INDICATION	HARDWARE SETPOINT	SOFTWARE SETPOINT	RANGE	EXPLANATION
H-2-822400 Sheet 1	--	TIC-302C-4C TAH-302C-1A (180°F) Shutdown (200°F)	--	--	Prevent boiling of heated water
	--	TIC-302C-4E Shutdown (375°F)	--	--	Prevent overheating of element*
	--	TIC-302C-4D TAH-302C-1B (180°F) Shutdown (200°F)	--	--	Same as 4C above
	--	TIC-302C-4F Shutdown (375°F)	--	--	Same as 4E above
H-2-822400 Sheet 2	TIR-3125A1	--	TAH-3125A1 (190°F) Shutdown (200°F)	0-220°F	Prevent overheating of pump bearing*
	VIR-3125A1	--	VAH-3125A1 (0.3in/sec) Shutdown (0.6in/sec)	0-1.0in/sec	Prevent damage to pump from vibration*
	TIR-3125A2	--	TAH-3125A2 (190°F) Shutdown (200°F)	0-220°F	Same as A1 above
	VIR-3125A2	--	VAH-3125A2 (0.3in/sec) Shutdown (0.6in/sec)	0-1.0in/sec	Same as A1 above
	--	FSH-3125A1 11 scfh	--	--	Pump seal failure*

DRAWING NO.	INDICATION	HARDWARE SETPOINT	SOFTWARE SETPOINT	RANGE	EXPLANATION
	--	PSL-3125A1 90 psig	--	--	Insufficient air pressure at seals*
	--	TSH-3125A 175°F	--	--	Overheating of pump bearing*
	--	FSH-3125A2 11 scfh	--	--	Same as A1 above
	--	PSL-3125A2 90 psig	--	--	Same as A1 above
H-2-822400 Sheet 3	TIR-3125B1	--	TAH-3125B1 (190°F) Shutdown (200°F)	0-220°F	Same as for pump 3125A shown above
	VIR-3125B1	--	VAH-3125B1 (0.3in/sec) Shutdown (0.6in/sec)	0-1.0in/sec	Same as for pump 3125A shown above
	TIR-3125B2	--	TAH-3125B2 (190°F) Shutdown (200°F)	0-220°F	Same as for pump 3125A shown above
	VIR-3125B2	--	VAH-3125B2 (0.3in/sec) Shutdown (0.6in/sec)	0-1.0in/sec	Same as for pump 3125A shown above
	--	FSH-3125B1 11 scfh	--	--	Same as for pump 3125A shown above
	--	PSL-3125B1 90 psig	--	--	Same as for pump 3125A shown above
	--	TSH-3125B 175°F	--	--	Same as for pump 3125A shown above
	--	FSH-3125B2 11 scfh	--	--	Same as for pump 3125A shown above
	--	PSL-3125B2 90 psig	--	--	Same as for pump 3125A shown above
H-2-822402 Sheet 1		PSH-3113A 10 psig	--	0-300 psig	Set per BIO requirement to indicate valve leakage
		PSH-3113B 10 psig	--	0-300 psig	Set per BIO requirement to indicate valve leakage

DRAWING NO.	INDICATION	HARDWARE SETPOINT	SOFTWARE SETPOINT	RANGE	EXPLANATION
H-2-822403 Sheet 1	PI-3125A	--	PAH-3125A (70 psig) Shutdown (70 & <10 psig)	0-100 psig	Prevent pump seal damage (high) or pump cavitation (low)*
	PI-3125B	--	PAH-3125B (70 psig) Shutdown (70 & <10 psig)	0-100 psig	Same as A above
	PI-3125C	--	PAH-3125C (1250 psig) Shutdown (1250 psig)	0-3000 psig	Prevent overpressurization of slurry piping per FDNW design calculations
	PI-3125D	--	PAH-3125D (1250 psig) Shutdown (1250 psig)	0-3000 psig	Same as C above
	PI-3125E	--	Interlock (>0 psig)	0-300 psig	Prevent opening vent valve with positive line pressure
	PI-3173	--	PAH-3173 (10 psig) Shutdown (10 psig)	0-100 psig	Prevent leakage from supernate line into sump per FDNW recommendation
	PI-3182	--	PAH-3182 (200 psig)	0-300 psig	Pressure indication with high pressure alarm
	PI-3183	--	PAH-3183 (10 psig) Shutdown (10 psig)	0-300 psig	Indicate leakage through slurry line block valves per FDNW recommendation
	--	PSE-3101A 60 psig	--	--	Indicate excessive annulus pressure per FDNW recommendation
	--	PSE-3101B 60 psig	--	--	Same as PSE-3101A
	--	PSE-3101C 60 psig	--	--	Same as PSE-3101A

DRAWING NO.	INDICATION	HARDWARE SETPOINT	SOFTWARE SETPOINT	RANGE	EXPLANATION
	--	PSE-3101D 60 psig	--	--	Same as PSE-3101A
	--	PSE-3101E 1600 psig	--	--	Protect downstream piping
	--	PSE-3101F 1370 psig	--	--	Same as PSE-3101E
	--	PSE-3101G 1600 psig	--	--	Same as PSE-3101E
	--	PSE-3101H 1370 psig	--	--	Same as PSE-3101E
H-2-822404 Sheet 1	PI-3126A	--	Interlock (>0 psig)	0-300 psig	Prevent opening of vent valve with positive line pressure
	PI-3126B	--	Interlock (>0 psig)	0-1000 psig	Same as A above
	PI-3167	--	PAH-3167 (10 psig) Shutdown (10 psig)	0-100 psig	Prevent leakage from supernate line into sump per FDNW recommendation
	PI-3168	--	PAH-3168 (10 psig) Shutdown (10 psig)	30" Hg 30 psig	Prevent waste flow into vent station HEPA filters per FDNW recommendation
	PI-3185	--	PAH-3185 (10 psig) Shutdown (10 psig)	30" Hg 30 psig	Same as PI-3168
	--	PSE-3102A 60 psig	--	--	Same as PSE-3101A
	--	PSE-3102B 60 psig	--	--	Same as PSE-3101A
	--	PSE-3102C 60 psig	--	--	Same as PSE-3101A
	--	PSE-3102D 60 psig	--	--	Same as PSE-3101A

DRAWING NO.	INDICATION	HARDWARE SETPOINT	SOFTWARE SETPOINT	RANGE	EXPLANATION
H-2-822405 Sheet 1	PI-842	--	PAH-842 (200 psig) Shutdown (200 psig)	0-300 psig	Prevent over pressurization of existing T.F. piping per input from TWRS
	--	YAS 841 30 psig	--	--	Indicate leakage/failure of rupture disk per FDNW recommendation
	--	YAS 842 30 psig	--	--	Same as YAS 841 above
H-2-822406 Sheet 1	--	PAL-3100A (115 psig)	--	--	Indicate low pressure in instrument air system per pump and valve manufacturer's recommendations
H-2-822407 Sheet 1	--	PAL-3100B (115 psig)	--	--	Same as PAL-3100A above
H-2-822409 Sheet 1	LI-302C-1	--	LAL-302C-1 (5 ft) Shutdown (5 ft)	0-20 ft	Prevent excessive tank drawdown and possible pump cavitation per FDNW recommendation

* Per Manufacturer's Recommendations.

DISTRIBUTION SHEET

To	From	Page 1 of 1
Distribution	G.L. Parsons	Date March 27, 1998
Project Title/Work Order		EDT No. N/A
Project W-058, RCSTS, N58PM		ECN No. 647046

Name	MSIN	Text With All Attach.	Text Only	Attach./ Appendix Only	EDT/ECN Only
W. G. Brown	T4-07	X			
J. L. Gilbert	R3-47	X			
G. L. Parsons	R3-47	X			
G. R. Porter	R3-47	X			
M. J. Sutey	T4-08	X			
M. Al-Wazani	T4-07	X			
R. E. Larson	T4-07	X			
D. R. Nunamaker	T4-07	X			
C. R. Reichmuth	T4-07	X			
L. R. Hall	R3-47	X			
J. R. LaPoint	R2-88	X			
D. B. Smet	R1-56	X			
Project Files	R1-29	X			

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ENGINEERING CHANGE NOTICE

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[] Yes (fill out Blk. 12b) [X] No (NA Blks. 12b, 12c, 12d)	N/A	N/A Design Authority/Cog. Engineer Signature & Date	N/A Design Authority/Cog. Engineer Signature & Date

13a. Description of Change

13b. Design Baseline Document? [] Yes [X] No

Revised document to reflect updated information and new listing of additional equipment set points.

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ID: 2

A-7900-013-2 (05/96) GEF095

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Document Number/Revision	Document Number/Revision	Document Number Revision
NONE		

21. Approvals

	Signature	Date		Signature	Date
Design Authority WG Brown	Warren G Brown	3/30/98	Design Agent	NA	NA
Proj. Eng. JL Gilbert	J L Gilbert	3-30-98	PE		
Proj. Mgr. GL Parsons	N L Parsons	3-30-98	QA		
QA	NA	NA	Safety		
Safety			Design		
Environ.			Environ.		
Other			Other		
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			Signature or a Control Number that tracks the Approval Signature		
			ADDITIONAL		