Interlock	Applicable To:	Alarm	Limit	Action
1	RA-TK-138 Reagent Water Tank Level, **RA-LIT-138**	LALL-138	≤ 10%	RA-P-139 Reagent Water Pump Stops RA-P-130 Caustic Pump Stops RA-HTR-156 Tank Heater Off RA-CHL-166 Tank Chiller Stops
2A	RA-TK-127A Caustic Drum Level, **RA-LT-127A**	LALL-127A	≤ 10%	RA-P-139 Reagent Water Pump Stops RA-P-130 Caustic Pump Stops
2B	RA-TK-127B Caustic Drum Level, **RA-LT-127B**	LALL-127B	≤ 10%	RA-P-139 Reagent Water Pump Stops RA-P-130 Caustic Pump Stops
3	Service Air Mis-Route Prevention, **SA-PDIT-220**	PDALL-220	< 5 psid	SA-AOV-232 closes
4	Reagent Mis-Route Prevention, **RA-PDIT-150**	PDALL-150	< 2 psid	RA-AOV-152 closes
5	LAW Feed Temperature, **WP-TT-300**	TAHH-300	≥ 100 °F	WP-FCV-306 closes
6	Filter DP, **WP-PDI-325**	PDAHH-325	$[PDI_{(9)} - PDI_{(10)}] \geq 5$ psid	WP-FCV-306 closes
7	WP-IX-400A Vent Line Level Switch, **WP-LS-423A**	LALL-423A	Closed (Activated)	WP-AOV-424A (vent drain valve) opens
8	WP-IX-400B Vent Line Level Switch, **WP-LS-423B**	LALL-423B	Closed (Activated)	WP-AOV-424B (vent drain valve) opens
9	WP-IX-400C Vent Line Level Switch, **WP-LS-423C**	LALL-423C	Closed (Activated)	WP-AOV-424C (vent drain valve) opens
10	WP-IX-400A Pressure Differential, **WP-PDI-400A**	PDAHH-400A	≥ 25 psid	WP-FCV-306 closes
11	WP-IX-400B Pressure Differential, **WP-PDI-400B**	PDAHH-400B	≥ 25 psid	WP-FCV-306 closes
12	WP-IX-400C Pressure Differential, **WP-PDI-400C**	PDAHH-400C	≥ 25 psid	WP-FCV-306 closes
13	WP-RT-500 Media Trap Pressure Differential, **WP-PDI-500**	PDAHH-500	≥ 10 psid	WP-FCV-306 closes
14	Treated LAW Temperature, **WP-TT-500**	TAHH-500	≥ 104 °F	WP-FCV-306 closes
15	WP-TK-550 Delay Tank Pressure Differential, **WP-PDI-550**	PDAHH-550	≥ 5 psid	WP-FCV-306 closes
16	Effluent Average Gamma, **WP-RIT-559A/B Average**	RAHH-559	≥ 170 nCi/cc	WP-FCV-306 closes
17	Effluent Gamma Differential, **WP-RIT-559A/B Difference**	RDAHH-559	± 30 nCi/cc	WP-FCV-306 closes
18	Sump Leak Detector, **WP-LDK-618**	LDA-618	Switch Activated	241-AP-107-P-001/002 Feed Pump Stops RA-P-130 Caustic Pump Stops RA-P-139 Reagent Water Pump Stops
19	Treated LAW Differential Temperature, **WP-TT-500**	TDAHH-500	TT-500 ≥ (TT-300 + 15 °F)	WP-FCV-306 closes
20	WP-ENCL-004 Airlock Cabinet Leak Detector, **WP-LD-610**	LAHH-610	Switch Activated	241-AP-107-P-001/002 Feed Pump Stops RA-P-130 Caustic Pump Stops RA-P-139 Reagent Water Pump Stops WP-AOV-610 opens
21	Instrument Air Pressure, **IA-PIT-259**	PALL-259	< 70 psig	If condition persists for 60 seconds then WP-FCV-306 closes
22	241-AP-106 Leak Detector, **AP106-WT-LDE-001**	LDAH-001	Leak Detected	WP-FCV-306 closes
23	241-AP-107 Leak Detector, **AP07F-WT-LDE-001**	LDAH-001	Leak Detected	WP-FCV-306 closes
24	241-AP-108 Leak Detector, **AP108-WT-LDE-001**	LDAH-001	Leak Detected	WP-FCV-306 closes

JEREMIAH JOSEPH ROGERS
STATE OF WASHINGTON
48968
REGISTERED
PROFESSIONAL ENGINEER
8/27/19

REV	DESCRIPTION	ORIG	CHK	APVD	IDV	DATE
3	Open 90% Comments Incorporated	JS	RW	JR		8/27/19

REV NO.	DESCRIPTION

REVISIONS

AVANTech INCORPORATED

AVANTECH PROJECT NO.: 1813

DWG NUMBER	TITLE	REF NUMBER	TITLE
H-14-111241	Block Flow Diagram		
H-14-111242	Process Flow Diagram		

DRAWING TRACEABILITY LIST — REFERENCES — NEXT USED ON

BLDG NO.

INDEX NO.

CAUTION
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ENGINEER		

US DEPARTMENT OF ENERGY
Office of River Protection

TSCR P&ID
INTERLOCK TABLE

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