

OPERATING LIMITS

TOTAL WASTE FEED CUTOFF CAUSES

- LOW SATURATOR BRINE FLOW (<300 GPM, HRA) FAL-2081, PI-204
- LOW 1st STAGE BRINE FLOW (<1960 GPM, HRA) FAL-2092, PI-204
- LOW 2nd STAGE BRINE FLOW (<2140 GPM, HRA) FAL-2095, PI-204
- LOW 1st STAGE FEED PH (<5.47, HRA) AAL-2104, PI-205
- LOW 2nd STAGE FEED PH (<6.23, HRA) AAL-2130, PI-206
- LOW 2nd STAGE RUNDOWN PH (<5.80, HRA) AAL-2129, PI-206
- INDUCED DRAFT FAN OFF, K-201, PI-212
- HIGH STACK CO (> 100 PPM, HRA, > 500 PPM, 60 SEC.) AT-2199, PI-212
- HIGH STACK THC (> 10 PPM, HRA) AT-2207, PI-212
- HIGH STACK GAS FLOW (> 77,800 ACFM, HRA OR 44,100 DSCFM HRA) FAH-2195, PI-212
- HIGH SATURATOR TEMPERATURE TAHH-2082 (>225°F), PI-204, 2/3 VOTE
- EMERGENCY STOP BUTTON, PB-0004, PI-101
- COMBUSTION EFFICIENCY (> 99.90) INSTANTANEOUS, TSCA
- FAILURE OF STACK EMISSION MONITORING (TSCA DEMONSTRATION BURN CONDITION 7) *
- FAILURE OF PCB MEASURING AND RECORDING, TSCA *
- LESS THAN 7 BAGHOUSE COMPARTMENTS ON LINE ZAL2020, PI-202
- BAGHOUSE OPACITY METER > 20 mgr/SCF AAH2020A, PI-202
- BAGHOUSE OPACITY METER > 50 AAH2020B, PI-202

- PI-101, PB-0005 WASTE FEED CUTOFF BUTTON
- PI-101, SWITCH, (UA-0001)
- PI-101, ZAO-1017
- 2 OF 3 VOTE - PI-101, PAHH-1006, (P. > 0.0" H₂O, 5 SEC.)
- 2 OF 3 VOTE - PI-101, TALL-1009 (< 2018°F HRA OR <1980°F W/60 SEC. DELAY)
- PI-101, AAL-1010 (< 3% 2MIN)
- PI-202, ZAL-2021
- PI-202, PDAL-2020 (< 1.8" H₂O)
- PI-201, TAH-2001 (>520°F)
- PI-201, TAH-2001R (>388°F HRA)
- PI-201, TAL-2001 (< 350°F W/15 MIN. DELAY)
- PI-201, TALL-2001 (< 250°F)
- PI-208, PAL-2044 (<300 PSI)
- PI-208, PAL-2045 (<300 PSI)
- PI-222, WT2037 (< 26.6 LB/HR, HRA)
- PI-222, FT2066 (< 80 SCFM, HRA)
- PI-205, FAL-2107 (< 2.36 LB/HR, HRA)

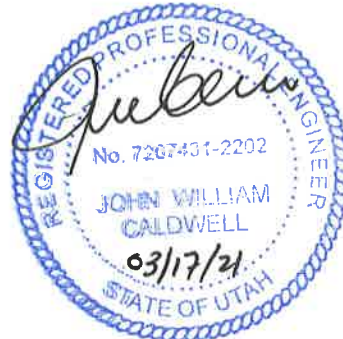
- MANUAL CUT OFF
- LOSS OF UTILITY POWER
- ABC SAFETY VENT OPEN
- ABC HIGH HIGH PRESSURE
- ABC LOW LOW TEMPERATURE
- ABC LOW OXYGEN
- BAGHOUSE ON BYPASS
- BAGHOUSE LOW PRESSURE DIFF.
- SPRAY DRYER HIGH EXIT TEMPERATURE
- SPRAY DRYER HIGH EXIT TEMPERATURE HRA
- SPRAY DRYER LOW EXIT TEMPERATURE
- SPRAY DRYER LOW EXIT TEMPERATURE HRA
- LOW SPRAY DRYER-UPPER BRINE PRESSURE
- LOW SPRAY DRYER-LOWER BRINE PRESSURE
- POWDERED ACTIVATED CARBON INJECTION RATE
- PAC EDUCTOR AIR FLOW RATE
- TMT-15 LOW FLOW

A

B

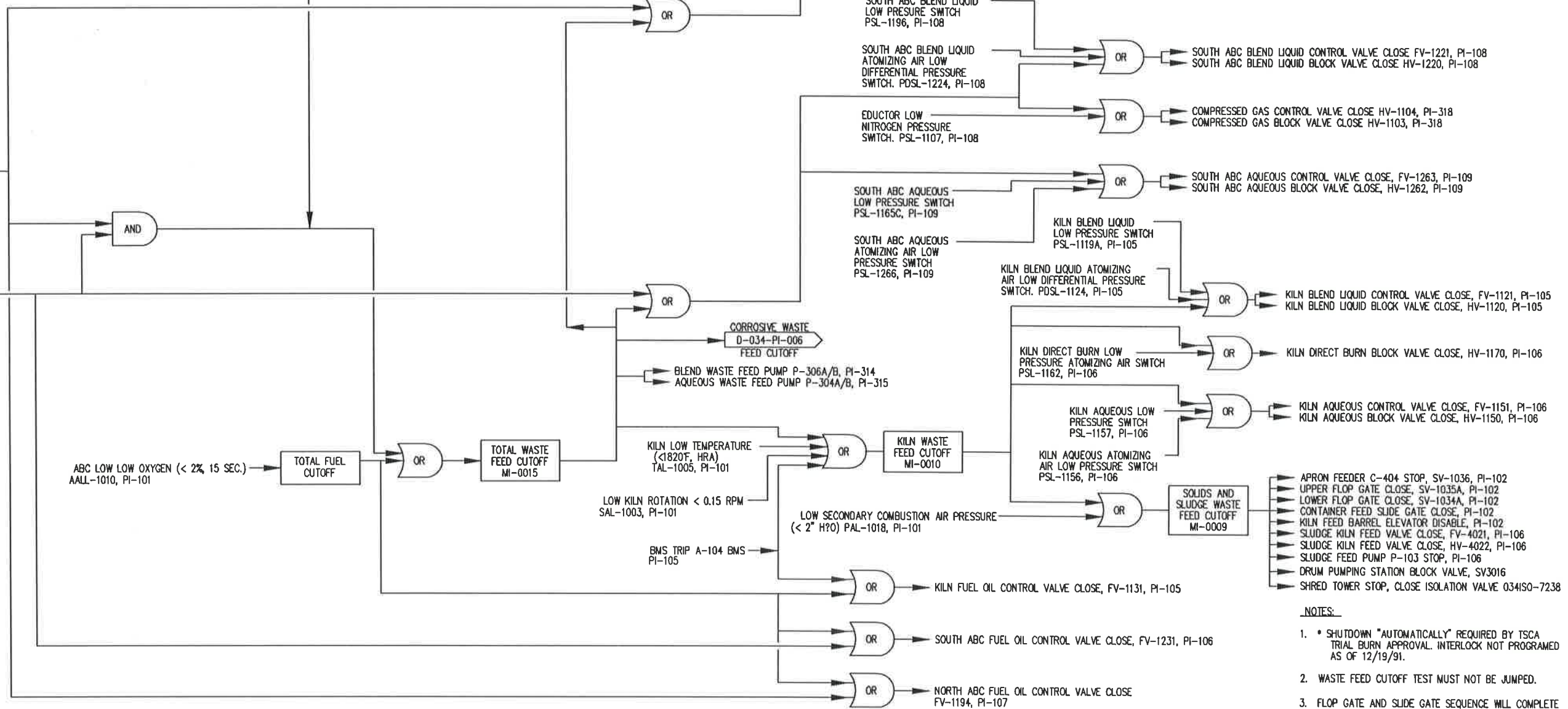
C

D



AIR QUALITY LIMITS (NOT INTERLOCKED, REPORTABLE IF EXCEEDED FOR 30 MINUTES.)
 ABC EXIT TEMPERATURE NOT GREATER THAN 2400°F, 5 MIN/HR
 STACK SO₂ LESS THAN 149 PPM
 STACK NO_x LESS THAN 114 PPM
 TOTAL FEED TO KILN AND AFTERBURNER NOT GREATER THAN 35,175 LB/HR HRA

NOT ALL INTERLOCK CONDITIONS APPLY TO THE RCRA PERMIT



- NOTES:**
- * SHUTDOWN "AUTOMATICALLY" REQUIRED BY TSCA TRIAL BURN APPROVAL. INTERLOCK NOT PROGRAMMED AS OF 12/19/91.
 - WASTE FEED CUTOFF TEST MUST NOT BE JUMPED.
 - FLOP GATE AND SLIDE GATE SEQUENCE WILL COMPLETE ONCE BEGUN.

INTERLOCK DESCRIPTION	
NO	DESCRIPTION
1	ADDED LINK TO CAUSTIC WASTE FEED CUTOFF
2	ADDED LINK TO SHRED TOWER STOP CUTOFF
3	AS-BUILT
4	CHANGED FEED RATE
5	ADDED COMPRESSED GAS CUT OFF

REVISIONS						
NO	DESCRIPTION	DATE	BY	CHK	ENG MGR	
1	ADDED LINK TO CAUSTIC WASTE FEED CUTOFF	3-18-08	LCC			
2	ADDED LINK TO SHRED TOWER STOP CUTOFF	03-19-19	PEC			
3	AS-BUILT	03-16-21	KB	TH	SS	KB
4	CHANGED FEED RATE	05-14-02	LCC			
5	ADDED COMPRESSED GAS CUT OFF	06-19-03	LCC			

REVISIONS						
NO	DESCRIPTION	DATE	BY	CHK	ENG MGR	
1	REMOVED WESP CUTOFFS, ADDED NEW OPACITY METER CUTOFF, THC AND PAC CUTOFFS,	02-15-05	LCC			
2	ADDED SV3016 CUTOFF AND NOTE 3					
3	ADDED TMT-15 CUTOFF	10-12-05	LCC			
4	ADDED NOTE	12-14-06	LCC			

APPROVALS		
BY	DATE	
GRN	01-19-98	
AS BUILT		

REGISTERED PROFESSIONAL ENGINEER
 DATE: _____

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TITLE		CAD NO.	
UTAH ENVIRONMENTAL SERVICE CENTER INCINERATION PLANT FOR INDUSTRIAL WASTES OPERATING INTERLOCK SYSTEM, SHEET 1		MA273T	
FOR	TOOLES SITE	SCALE	JOB NO
NA		SAFETY-KLEEN DWG NO	REV
		D-034-PI-005	19