

Astec TTU System Interlocks

No.	COMPONENT	EQUIPMENT REQUIRED TO OPERATE	SETPOINT OR STATUS REQUIRED	SCHEMATIC REFERENCE
1	Discharge Conveyor and Pugmill (44)	Discharge Conveyor Pugmill Selector Switch Pugmill (forward) OR Pugmill (reverse)	On-motor starter Aux seal in On-(Discharge Pugmill) On-motor starter Aux seal in On-motor starter Aux seal in	44 44 44 46
2	Pugmill Water Supply Valve (128)	None		128
3	PTU Drum Drive (ECD) (489)	Discharge Conveyor and Pugmill PTU Drum Drive	On On	43 489
4	Feed System Conveyor to Drum (Weigh Scale) (63)	Conveyor to Drum Safety Switch AWFCO PTU Drum Drive	Push button seals Aux contact Not Pulled On On	63 63 64 63
5	Feed Bin #2 (498)	Feed System Conveyor to Drum Feed Bin # 2	On Push button seals Aux contact	498 498
6	Feed System Screen (73)	Feed System Conveyor to Drum Feed System Screen	On Push button seals Aux contact	63 73
7	Feed System Conveyor to Screen (78)	Feed System Screen Feed System Conveyor to Screen	On Push button seals Aux contact	73 78
8	Feed System Bin #1 (493) and Speed Controller (455)	Clay Shredder Feed System Bin # 1 Baghouse Temp	On On motor starter Aux seal in Not low	68 493 455
9	Air Compressor (92)	None	Push button seals in with motor starter Aux contact	92
10	Quench Pump A (36)	None	Push button seals in with motor starter Aux contact	36
11	Quench Tank Water Atomizing Air Solenoid (116) Removed From Service	Quench pump water valve	On when valve starts to open	116
12	Induced Draft Fan (2)	Baghouse exit temperature Baghouse exhaust damper	Not high Damper closed	254 207
13	Baghouse Damper Actuator Motor (202)	Induced draft fan	On	7
14	Baghouse Pulse Control (Air Cleaning Valve) E90043-4	Pulse Switch Baghouse Exit Temperature Baghouse Hopper Screws A, B & C	On Not High On	

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15	Dust Return Transfer Screw (30) Baghouse Airlock (31)	Drum Discharge Screw Water Pump (Removed from Service) Dust Return Transfer Screw Baghouse Airlock	On Motor Starter Aux seal in On Motor Starter Aux seal in	399 30 31
16	Baghouse Cross Screw (26) Baghouse Hopper Screws A, B & C (26)	Baghouse Airlock Baghouse Crossover Screw Baghouse Hopper Screws A, B & C	On On motor starter Aux seal in On motor starter Aux seal in	31 26 26
17	Discharge Cyclone Airlock (49)	Pugmill Discharge Cyclone Airlock	ON ON motor starter Aux seal in	44 49
18	PTU Burner Blower (17)	ID Exhaust Fan PTU Burner Blower	On On motor starter Aux seal in	5 17
19	PTU Burner Limits Closed (E90043-5)	PTU Combustion Air Pressure Switch PTU Burner Blower ID Exhaust Fan Air Pressure Switch ID Exhaust Fan Quench Thermo Couple PTU Exhaust Exit Temp Fuel Low Gas Pressure Switch Fuel High Gas Pressure Switch Limits Closed	Not low pressure On Not Low On Not High Not High Not Low Not High Indicator Lit when all above true	E90043-5 38 99 5 110 E90043-5 E90043-5 E90043-5 E90043-5
20	PTU Burner Pilot Flame (E90043-5)	Limits Complete Flame Safeguard Reset Pilot Start Button Purge Complete & Latched PTU Burner Low Fire Ignition Transformer Pilot Solenoid Valve Flame Proof	Limits proved – Closed Honeywell Relay not in alarm Push Button < 10 seconds Honeywell Flame Safeguard Micro Switches Closed On for 10 seconds Open Flame Scanner (UV) Sees Flame	
21	PTU Burner Main Flame (1111)	Pilot Flame Maxon Valves Aux Switches Fuel Selector Switches PTU Burner Main Flame Start Flame Proof	PSP On Micro Switches Open Gas Position Start Button Flame Proof On (UV detector)	E90043-5

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22	PTU Burner Control (Switch in Auto) E90043-5	Ready to Control Relay 3TR Burner control is from Honeywell TIC (PTU Product T/C) Burner control is from Honeywell TIC (PTU Product T/C)	Relay 3TR On Burner control switch selected to "Gas" Burner control switch selected to "soil"	E90043-5
23	PTU Burner Control (Switch in Manual) (1118)	Ready to Control Relay 3TR Burner control is from Open/Close Switch	Relay 3 TR On Burner control switch selected to "Open" opens valve position Burner control switch selected to "Closed" closes valve position	E90043-5
24	STU Burner Blower (21)	ID Exhaust FAN STU Burner Blower	On On motor starter Aux Seal in	7 21
25	STU Burner Limits Closed E90043-7	STU combustion Air pressure switch STU burner blower ID exhaust fan air pressure switch ID exhaust fan Quench exit temp STU exit temp Fuel low gas pressure switch Fuel high gas pressure switch Limits closed	Not low pressure On APS not low pressure On Not high Not high Not low Not high Lit when all above true	E90043-7 21 99 5 110 E90043-7 E90043-7 E90043-7 E90043-7
26	STU Burner Pilot Flame E90043-7	Limits complete Flame safeguard reset Pilot start button Purge complete & latched STU Burner low fire Ignition transformer Pilot Solenoid valve Flame Proof	Limits proved "closed" Honeywell relay not in alarm Push button , 10 seconds Honeywell flame safeguard Micro switches closed On for 10 seconds Open Flame scanner (UV) sees flame	E90043-7
27	STU Burner Main Flame E90043-7	Pilot Flame Maxon Valves Aux switches Fuel selector switches STU burner main flame start Flame proof	SSP on Micro switches open Gas position Start Button Flame Proof On (UV detector)	E90043-7

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No.	COMPONENT	EQUIPMENT REQUIRED TO OPERATE	SETPOINT OR STATUS REQUIRED	SCHEMATIC REFERENCE
28	STU Burner Control (Switch in Auto) (E90043-7)	Ready to control relay 3TR Burner control is from Honeywell TIC (STU gas outlet T/C)	Relay 3TR on	E90043-7
29	STU Burner Control (Switch in Manual) (E90043-7)	Ready to control Relay 3TR Burner control is from Open/Close switch	Relay 3TR on Burner control switch selected to “Open” opens valve position Burner control switch selected to 30“Close” closes valve position	E90043-7