

CRCS RETROFIT - CCR PLATFORMING[™]



Honeywell UOP provides tailored Aftermarket solutions that allow customers to focus on proactive maintenance strategies, operational optimizations and improvements, and reduction in total cost of ownership. UOP is committed to providing customers with proven control system technology to help ensure the long-term performance and reliability of UOP equipment. UOP proudly offers CRCS retrofits that provide customers with control systems designed to improve existing operations to most efficiently meet business goals.

Control System Modernization

UOP's investment in continuous product design shows our commitment to technology development and updates for improved lifecycle management.

- Modernization of your CCR control systems allows you to take advantage of new functionality with enhanced troubleshooting tools
- As technology advances, hardware capabilities are quickly surpassed by new platforms

Why should you retrofit?

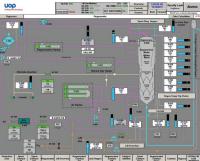
With the pace of technology advancements, system components are becoming obsolete more quickly. The UOP control system retrofits have been developed to offer the following benefits:

- Overcome obsolete spare part availability issues
- Utilize current technology
- Additional Safety features
- Additional catalyst safety features

Technology Evolution

The UOP retrofit designs use the latest in critical control and capture enhancements from current CCR technology. By integrating this with our accrued process knowledge, the systems can provide the following benefits in:

- Process (functionality)
- Operating (ease of use)
- Training (troubleshooting)
- Equipment protection (hardware)



White Burn Inhibit

UOD		FRAME IN	15-530 MCA30		1246/001	Englaser Alarm		
				Plints / Leck Hopper Surge Drum Switchpoint	186 DEC 7856	Catalyst Flow Setup		
B Site	Black		Trip Point			Carrent Value		
			Setting Range	Description	_	Wuku Dem		
650 °C	660 °C	660 °C 0	- 650 °C R	generator Burn Zone 1 High High Trip Poin	nt - 11-671	660 °C		
650 °C	650 °C	660 °C 0	- 650 °C R	igenerator Burn Zone 2 High High Trip Poln	t - T1-672	650 °C		
660 °C	650 °C	660 °C 0	- 650 °C R	rgenerator Burn Zone 3 High High Trip Poin	t - T1673	660 °C		
660 °C	650 °C	660 °C 0	- 650 °C R	igenerator Bum Zone 4 High High Trip Poin	nt - 11-674	660 °C		
660 °C	460 °C	660 °C 0	- 650 °C R	generator Burn Zone 5 High High Trip Poin	H . TI-676	660 °C		
660 °C	650 °C	660 °C	- 650 °C R	generator Burn Zone 6 High High Trip Poin	H - TI-676	660 °C		
660 °C	660 °C	660 °C 0	- 660 °C R	gen Chlorination Zone 1 High High Trip Pa	int - 11604	660 °C		
550 °C	550 °C	560 °C 6	. 550 °C R	igen Chlorination Zone 2 High High Trip Pe	ere - 11.686	660 °C		
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	- 10	s 1- 30 s	Switchover			aya ca		
antinen Samer Galager	COLUMN DAMAS	s 1. 30 s		Delay Time	ent Regenerates average Catalyst - Regenerates			

Regen Screen Protection

UOP	HEATER FEM	LR Can Dissort HS 530: MEE STATE BY A280 FEM HS 548: MEE STATE BY A287 100	SM COMM GOOD GOOD	Oven-lew Ceeksis Screens	12/1	47 AM 6(2917	Security Level	Alarm
Dypess	press and	ola			WER	Cooldown Schup	an	
Conditions Required to turn on	Cooldown Mode			64		0.		
IS 518 Emergency Step Swite VPM Valve Power is not O		Reset		Firset H0404A		et alla		
Nitragen Finader Pressure in not Lo F1.501.PV: 18.62 >		Ship H0-502D		Step HD 504D		510p		
Catalyz Cocalation OFF Spent Catalyst Instation CL052D		Regeneration Heater		Air Heater		Robert Gas		
1. After turning on Cooldown, the follow 9 secs remaining Recycle Gas to Purge Excha	sant flow is not I aw			En .	-	01	_	
Finduction Can to Red Can II Fiscal		Reset HS-SIZA		Peset HS-508A				
Mittagen Parge to Catalyst Callect @ seconds remaining 1		Dep HS-4010		5 Mp				
2. Then the following are tripped: S XY432 Regen Cet Lill Lin FX582 Reservated Cets		Reduction Heater 1		Reduction Heater 2				
3. Then the following candidon must be PL561 Regenerated Cets								
4. Then the fullowing happen in order: XY 577 Buoster Gas Value XY 521 Confidence Lift Lin FE 554 Confidence Primar				_	_			_
5 THEN California Second		Cel						
beith 30 second switchover irip delay 30 seconds remaining af 30		MA HISSISA						
F1200 or F1504 Recp F1505 Nikogen Par		C# HS-5258						
Gase W	idow Legend	Legeod			Cooldown			

Dynamic Help Screens

Justification

"Our current unit has been running just fine for years. How can I justify replacing it?" If you've had issues with the following, it may be time to consider upgrading:

- Performance
- Number of Shutdowns & recovery time
- Regen screen failures
- Maintenance budgets

What Can UOP Offer for Control System Retrofits?

- More efficient output for optimum catalyst regeneration for maximum process profitability
- High on-stream factor/reliability
- Faster start-up and recovery from non-steady state operation
- Protection of catalyst and equipment resulting in maximum catalyst life and minimum maintenance requirements
- Safe operation automatic regenerator shutdown should abnormal conditions be encountered; independent operation from the DCS if required

Top Features

• White Burn Inhibit

Enhanced safety mechanism prevents operators from unintentionally regenerating twice-coked catalyst in the lower part of the regeneration tower. This feature helps to reduce chances of mechanical damage to the equipment or catalyst which can cause unplanned shutdowns.

Regen Screen Protection

Enhanced safety mechanism gives customers the ability to set and adjust their own temperature trip values in the burn zone; reducing the potential risk of thermally damaging the catalyst or screen.

• Dynamic Help Screens

Troubleshooting aid delivers faster diagnostics through logic step requirements and what conditions need to be satisfied for the operation to continue or to diagnose trips that may have occurred.

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