



HCN COMPLEX
INTERNAL PROCEDURE FOR CONTROL OF BYPASSING AND TESTING PROTECTIVE DEVICES

POLICY

No protective devices will be intentionally bypassed or made inoperative without:

1. Providing adequate alternate protection to the system that the device protects.
2. Continuing communications that the device is bypassed.
3. The approval of the appropriate level of authority.

PROCEDURE

In the event that a protective device must be taken out of service, it will be the responsibility of the chief operator to:

1. Give or acquire the appropriate approval to remove the protective device from service.
2. Define and implement alternate means of protection normally provided by the device before the device is removed from service.
3. See that the alternate means of protection is maintained until the device bypassed is returned to service.
4. Place a control tag on the bypass device status board in the control room with all the information regarding the device bypassed filled in.

COMMUNICATION

The chief operator will check the bypass device status board at the beginning of each shift. Those devices requiring maintenance will be expedited.

<u>Protective Device</u>	<u>Level of Approval Required to Bypass Device</u>	<u>Requirements for Bypassing & Testing Frequency</u>
Safety Shower Alarms	Chief Operator Foreman Specialist Gen. Superintendent	Control tag required Alternate adequate protection must be provided (Test Frequency - 1/day)
HCN Detector	Chief Operator Foreman Specialist	Control tag required Operator stationed at HCN storage tanks monitoring operations (Test Frequency - 1/week)
HCN Alarms	Chief Operator Foreman Specialist Superintendent	Control tag required Alternate adequate protection required (Test Frequency - 1/week)
N ₂ Backflow Preventers	Chief Operator Foreman Specialist	Control tag required Operator monitoring pressures with capability of closing valve if required (Test Frequency - 1/quarter)
Closing Block Valves Under Relief Valves	Chief Operator Foreman Specialist	Control tag required Alternate adequate protection must be provided (Test Frequency - car seal check list reviewed 1/week)
CT-2 Turbine Electronic Overspeed Trips	Chief Operator Foreman	Control tag required Turbine speed set with manual tachometer—mechanical overspeed trip as backup (Test Frequency - 2/year)
CT-2 Fan Vibration Trips	Chief Operator Foreman	Control tag required Alternate adequate protection must be provided (Test Frequency - 2/year)

<u>Protective Device</u>	<u>Level of Approval Required to Bypass Device</u>	<u>Requirements for Bypassing & Testing Frequency</u>
27R1 Low Temp. S/D.	Chief Operator Foreman Specialist	Control tag required Alternate adequate protection must be provided (Test Frequency - 1/quarter)
27R1 Low HCN Flow	Chief Operator (for startup)	Nothing for startup
Low Ach Flow HCN/Ach Ratio Deviation	Chief Operator Foreman Specialist (For testing or bypassing)	Control tag required for testing along with operator monitoring (Testing Frequency - 1/quarter)
27TAH 508 for 27T1	Chief Operator Foreman Specialist	Control tag required for test- ing along with operator monitoring (Testing Frequency - 1/quarter)
High HCN Level in 25N2's Shuts off HCN Feed	Chief Operator Foreman Specialist	Control tag required Adequate alternate protection provided (Test Frequency - 1/quarter)
High Level in 25N2's Shuts off IBY Flow	Chief Operator Foreman Specialist	Control tag required Adequate alternate protection provided (Test Frequency - 1/quarter)
Low Level in Premix Tanks (25N2's) Closes Reactor Feed Valves	Chief Operator Foreman Specialist	Control tag required Adequate alternate protection provided (Test Frequency - 1/quarter)
Low Reactor Temp. Closes TBA Reactor Feed Valve	Chief Operator Foreman Specialist	Control tag required Adequate alternative protection provided (Test Frequency - 1/quarter)

<u>Protective Device</u>	<u>Level of Approval Required to Bypass Device</u>	<u>Requirements for Bypassing & Testing Frequency</u>
High Reactor Temp. Closes TBA Reactor Feed Valve		Bypassing this interlock is not permitted (Test Frequency - 1/quarter)
TBA Reactor and Hydrolyzer Tenor Step Advance	Chief Operator	Reactor or hydrolyzer con- ditions verified in the field Chief notes problem in daily log
TBA Premix Tank out of Tolerance Override (clear)	(<25 lbs) Chief Operator (>25 lbs) Chief Operator Foreman	Premix tank level verified Plan made for high HCN in hydrolyzer bottoms Problem noted in daily log
ACY Generator	For Startup Chief Operator	Nothing for startup
Shutdown Interlocks Low DMK Flow Low HCN Flow Low DMK/HCN Ratio High Temp. Low Caustic Flow Low Circulation Low Agitator Amps	Any period longer than startup Chief Operator Foreman Specialist	Control tag required Adequate alternate protection provided (Test Frequency - 1/month)
Dilute Filter Inter- locks for High D/P (3)	1 shift Chief Operator >1 shift Chief Operator Foreman	Control tag required Alternate adequate protection provided (Test Frequency - 1/quarter)
High D/P on 29D201	Chief Operator Foreman Specialist	Control tag required Adequate alternate protection provided (Test Frequency - 1/quarter)
High D/P on 29D202	Chief Operator Foreman Specialist	Control tag required Adequate alternate protection provided (Test Frequency - 1/quarter)

<u>Protective Device</u>	<u>Level of Approval Required to Bypass Device</u>	<u>Requirements for Bypassing & Testing Frequency</u>
High Level Alarms in ACY and DMK Storage Tanks	Chief Operator Foreman Specialist	Control tag required Adequate alternate protection provided (Test Frequency - 1/year)
High Pressure 29D203	Chief Operator Foreman	Control tag required Adequate alternate protection provided (Test Frequency - 1/quarter)
Low Temp. 29D203	Chief Operator Foreman	Control tag required Adequate alternate protection provided (Test Frequency - 1/quarter)
Low Pressure PS247 Low Pressure PS229	Chief Operator for Purging Any other Foreman Specialist	Control tag required Adequate alternate protection provided (Test Frequency - 1/quarter)
Instrument Alarm Cards that are not Critical and have Downstream Alarms	Chief Operator	Control tag required Alternate problem identification system noted on tag Annunciator labeled "Pulled"
HCN Tanks High Level Alarms	Chief Operator Foreman Specialist	Control tag required Adequate alternate protection provided (Test Frequency - 1/month)
HCN Tank High Temp. Alarms	Chief Operator Foreman	Control tag required Adequate alternative protection provided (Test Frequency - 1/quarter)
Chlorine Tank Relief Valve Alarms	Chief Operator Foreman Specialist	Should not be bypassed Work to completion if malfunctioning Control tag required (Test Frequency - 1/week)
Breathing Air Low Pressure Alarm	Chief Operator Foreman Specialist	Control tag required Adequate alternate protection provided (Test Frequency - 1/quarter)