

CONOCO

Interoffice Communication

To : Vinyl Shift Supervisors
From : C. R. Miller
Date : October 25, 1979
Subject : EMERGENCY SHUTDOWN PROCEDURES

EPA
OSHA

In the event of a runaway reaction the reactor will be killed with the addition of a minimum of 5 gallons AMS. A runaway reaction is defined as a 10°F increase or a 20 psig increase in 5385, 5425, 5465 resins or any temperature or pressure increase in 5305.

The following parameters are to be the maximum limits on a runaway reaction. The reaction should be immediately killed with NO if either one of the parameters is exceeded.

<u>Resin</u>	<u>Maximum Temperature</u>	<u>Maximum Pressure</u>
5385, 5425, 5465	142°F	145 psig
5305	162°F	165 psig

If the reaction is allowed to exceed these limits, it may not be controllable and result in a relief valve or rupture disc discharge to the atmosphere.

CAUTION: NO is a highly poisonous orange-colored gas. A Scott Air Pack must be worn while killing a reactor with the NO short stop system.

EMERGENCY SHUTDOWN DUE TO POWER FAILURE

During the event of a power failure the reactors must be killed with NO. The sequence of which reaction to be killed is as follows:

1. All 5305 reactors
2. Remaining reactors - the reactor in polymerization cycle the longest will be killed first.

In all cases of emergency kill the pressure rise in the reaction should continue to be monitored. If the pressure continues to rise, the following steps are to be taken:

1. Equalize the reactor with any other empty or killed reactor of the same type product.
2. If the pressure still continues to rise, vent through the main condenser valve to the recovery system and the recovered VCM receiver.

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3. If this will not relieve the pressure buildup, then equalize the reactor with a reactor of different type resin.
4. The reactor pressure buildup may become sufficient to cause opening of the reactor relief valve system. It is possible that the reactor pressure will continue to increase despite the relief valve discharge. If this occurs, the manual vent should be opened as often as needed to prevent failure of the double disc relief assembly.

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cjt

c: CLM, RAF, JEB, MPB