

#### IV. CONTROL PANEL SWITCHES, INDICATORS, AND ALARMS (CONTINUED)

##### C. Reactor Charge Panel (Continued)

###### Charge Meter Counters and Switches

This section of the charge panel includes the following charge meter counters and switches:

1. Recipe Number: This switch is used to tell the Modicon which formula to charge when automatically charging a reactor. The resin type (53850 in the old unit) is selected using the push-buttons which advance the display numbers. When changing a formula, the recipe number must show the formula ~~for~~<sup>on</sup> which the setpoint is being changed.
2. Register Number: This switch is used when changing a Modicon formula setpoint. If it used to display the setpoint number which is being changed <sup>and to tell the Modicon which setpoint to change</sup> (i.e., at the present time setpoint number 0006 represents the methocel cutoff setpoint). It must display 0000 when charging a reactor.
3. Setpoint Valve: This switch is used <sup>in</sup> conjunction with the Register Number switch <sup>(above)</sup> when changing a formula to set the desired valve for the setpoint shown on the Register Number switch (i.e., to set the methocel cutoff at 195 gallons, the Register number must show 0006 and the setpoint valve must show 0195). The setpoint valve should show 0000 when charging a reactor.

value?  
YES

#### IV. CONTROL PANEL SWITCHES, INDICATORS, AND ALARMS (CONTINUED)

##### C. Reactor Charge Panel (Continued)

##### Charge Meter Counters and Switches (Continued)

4. Enter Data: This single pushbutton switch is used in two ways:

- value?* →
- a. To enter a new valve<sup>u</sup> into the Modicon when changing a set-point. Pushing the Enter Data button will enter the displayed Set Point (Valve) into the displayed Register Number for the displayed formula (Recipe Number).
- b. To enter the charge formula into the Modicon before charging a reactor (must be pushed at the same time as the Meter Reset switch). When pushed, the Modicon checks the formula displayed versus the selector switch position and the reactor being charged<sup>a</sup> to make sure that a formula for the large reactors is not charged into the small reactors.
- →

5. Meter Reset: This single pushbutton switch is used to reset the charge meter counters and Modicon setpoints before charging a reactor.

6. Reactor Selector Switch: A selector switch that has SMALL and LARGE positions that can be selected. This tells the Modicon what size formula is to be charged and prevents the automatic charge READY light from coming on if the reactor being charged and the selector do not agree.

IV. CONTROL PANEL SWITCHES, INDICATORS, AND ALARMS (CONTINUED)

C. Reactor Charge Panel (Continued)

Alarms (Continued)

acknowledging the alarm, check the makeup valve to make sure it shows a closed light and also check the VCM transfer pumps to see if both green lights are off. If either one is on, verify that the new unit is making up VCM. If it is not, shut down the pump(s) manually and have the chief operator check the pumps and write a corrective action maintenance work order as needed.

2. VCM Bullet Deluge System: This alarm comes on when the deluge system on the VCM tank farm storage bullets is activated (at 3 psig air pressure on the valve). When the alarm is acknowledged, contact and notify the yard supervisor (on days) or operator that the bullet <sup>deluge</sup> system is on. Possible causes <sup>include</sup> ~~are~~ a VCM leak, low air pressure to the deluge valves, or a malfunction in the deluge system. Yard personnel will investigate the cause of the deluge system tripping and will notify the Vinyl Shift Supervisor if needed.

3. VCM Bullet Deluge Low Air Pressure: This low pressure alarm on the tank farm VCM Bullet deluge system comes on if the air pressure to the deluge valve drops below 25 psig. Notify the yard operator (or supervisor on days) of the alarm condition and have him check for air leaks in the system before it drops to 3 psig and sets off the deluge system.

Notifying the yard is not your pump. When a deluge goes off, notify immediately. Vinyl Shift Supervisor. This is not a deluge alarm. Deluge system don't go off yet.

IV. CONTROL PANEL SWITCHES, INDICATORS, AND ALARMS (CONTINUED)

D. Recovery Panel (Continued)

Switches (Continued)

4. Slurry (Continued)

b. Exhauster - The start/stop switch for the motor on the ex-hauster that is over the dump screener.

c. Slurry Dump 72-496 - The start/stop switch for the east slurry transfer pump.

d. Slurry Dump 72-497 - The start/stop switch for the west slurry transfer pump.

e. Emy. Sweco Valve - The open/close switch for the actuated valve upstream of the dump bullseye in the reactor dump header.

f. To T-407 - The open/close switch for the actuated valve on the slurry dump header that goes to 407 blend tank.

g. Small Blend Tank - The open/close switch for the actuated valve on the slurry dump header that goes to the small blend tank header.

h. To T-747 - The open/close switch that operates the actuated valve between the slurry dump header and 747 blend tank.

i. To T-502 - The open/close switch that operates the actuated valve between the slurry dump header and 502 blend tank.

j. To T-501 - The open/close switch for the actuated valve between the slurry dump header and 501 blend tank.

*Dump or pump?  
The tag  
says "DUMP"*

IV. CONTROL PANEL SWITCHES, INDICATORS, AND ALARMS (CONTINUED)

D. Recovery Panel (Continued)

Switches (Continued)

7. Other Switches

a. Deluge Firewater - A specialized switch having an ON and OFF pushbutton and a green indicating light. When the ON pushbutton is pressed, the old unit deluge system is set off and the indicating light comes on. <sup>to indicate</sup> To shut off the deluge system, the water must be turned off and reset manually in the field. The control panel switch OFF pushbutton must be pressed (and the indicating light will go off), resetting the air valve for the system before it can be manually reset.

b. Test Lamp - When pushed, this switch should light all of the lights on the recovery panel. Any lights that are not burning must be replaced according to the Panel Light Test Procedure given in section B.

NOTE - The indicating light will also come on if the deluge system is automatically tripped by any of the general monitors. <sup>the general monitors trip the deluge system</sup> At a 1.0% VCM (18,000 ppm) concentration which is 50% of the lower explosive limit for VCM.

Immediate attention  
required by "A" OP, Lead OP,  
Chief OP & Super if deluge  
comes on.

#### IV. CONTROL PANEL SWITCHES, INDICATORS, & ALARMS (CONTINUED)

##### D. Recovery Panel (Continued)

###### Indicators

The following indicators are located on the old unit recovery panel, listed according to the labels on the indicators:

- normal set is? pt shown on label on controller* →
1. Recovery - This is the recovery pressure controller and indicator. In the automatic position it operates the automatic recovery valve that regulates the pressure going into the recovery knockout tanks. The setpoint is adjustable and the indicating pen shows the recovery line pressure downstream of the valve *in psig. from 30 in. Hg vacuum - 100 psig.*
  2. FA-951 Level - This indicator shows the level in the south batch water stripper. The level *is?* indicated from 0-100%.
  3. FA-951 Press. - This indicator shows the pressure in the south batch water stripper. The pressure is indicated from 30 in.Hg vacuum - 100 psig.
  4. FA-951 Temp. - This indicator shows the temperature in the south batch water stripper from 50°F - 300°F.
  5. Stripping Steam - This is the steam stripping controller and flow indicator for the batch water strippers. It controls the flow of steam going into the batch water stripper that has the stripping steam actuated valve open. The setpoint is adjustable and the indicating pen shows 0-10 roots of flow which corresponds to 0 - ~~2500~~ <sup>5500</sup> lbs/hr. of steam.

IV. CONTROL PANEL SWITCHES, INDICATORS, & ALARMS (CONTINUED)

D. Recovery Panel (Continued)

Indicators (Continued)

6. Pressuring Steam - This is the pressurizing steam controller for the batch water strippers. It controls the tank pressure by regulating the flow of steam through an automatic valve going into the top of the tank(s) that ~~have~~<sup>has</sup> the pressurizing steam actuated valve open. The indicating pen shows the pressure downstream of the automatic valve from 0 - 100 psig.

FA-952 - This indicator shows the level in the north batch water stripper. The level is indicated from 0 - 100%.

8. FA-952 Press. - This indicator shows the pressure in the north batch water stripper. The pressure is indicated from 30 in.Hg vacuum - 100 psig.

9. FA-952 Temp. - This indicator shows the temperature in the north batch water stripper from 50°F - 300°F.

10. Caustic Stg. Tk. - This indicator shows the level in the old unit chem wash tank, from 0 -100%.

11. The following ammeters for the recovery vacuum pumps and compressors are on the recovery panel. They show the motor amps from 0 - 300 amps.

a. Vacuum Pump 72-501 - "A" vacuum pump

b. Vacuum Pump 72-502 - "B" vacuum pump

c. Compressor 72-503 - "A" compressor

d. Compressor 72-504 - "B" compressor

e. Compressor 72-505 - Disconnected from any field equipment.

*Normal set pt  
& pressure?  
Operation is  
described under  
Batch Water Strippers  
Operating Procedures?*

*[Handwritten mark]*

IV. CONTROL PANEL SWITCHES, INDICATORS, & ALARMS (CONTINUED)

D. Recovery Panel (Continued)

Alarms (Continued)

2. <sup>N</sup>BH-691,LS-602 - This is the high level alarm for silo 691 and is to be handled the same as the alarm for 690 (above).
3. <sup>N</sup>LS-603,BH-689 - This is the <sup>high</sup>~~light~~ level alarm for silo 689 and is to be handled the same as the alarms for 690 and 691 (above).

4. Emission Recovery Sys. Shutdown - This is the shutdown alarm for the emission recovery system. When the system shuts down, the vacuum pumps and compressors shut off. Upon acknowledging the alarm, notify the chief operator. The local panel should show the reason for the shutdown.

<sup>5</sup>Chem Wash High Level - This is the high level alarm for the old unit chem wash tank. It comes on when the level in the tank reaches the probe that is 1½ feet from the top of the tank (~~and~~ 8" below the overflow pipe). The alarm comes on at about 85% on the level indicator. Upon acknowledging the alarm, the lead operator <sup>u</sup>must check the chem wash system and shut down any equipment that would cause the tank level to rise. If there is not equipment running or valves open, the lead operator will notify the "A" operator to check for material going into the tank and the lead operator will monitor the tank level to make sure it does not continue rising. If the level keeps rising and the problem cannot be found

*Any action required?  
notify Chief Op?  
Yes- Make sure inlet valve shut automatically.  
(So don't backpressure tanks)*

IV. CONTROL PANEL SWITCHES, INDICATORS, & ALARMS (CONTINUED)

D. Recovery Panel (Continued)

Alarms (Continued)

5. Chem Wash High Level (Continued)

promptly, <sup>or</sup> if the level alarm comes on below 85%, notify the Shift Supervisor. The lead operator must continue to monitor the level after it stabilizes until chem wash is used and the alarm goes out. *The "A" Op should check to see if the tank is overflowing to the sewer*

NOTE: If the level continues rising or rises more after the alarm light comes on, the chem wash in the tank could overflow causing a pH problem for the waste water ponds.

6. Slurry Tank High Level - This is the high level alarm for the slurry dump box on the suction of the slurry transfer pumps. It is set off by the level in the tank reading a level about 6" from the top of the tank and about 3" below the overflow pipe. If dumping when the alarm comes on, shut the emergency Sweco valve and notify the "A" operator. The pumps or lines may be plugged and may have to be flushed out before resuming dump.

*If not shut off, resin product will be lost to the sewer*

The alarm normally comes on in between dumps as the flush water for the level float fills the dump box. The alarm should be acknowledged and the lead operator will check to make sure that nothing is ~~dumping~~ <sup>being dumped</sup>. The light should go out when the transfer pumps start, <sup>that a slurry</sup> prior to dumping, or it may indicate a plugged line <sup>is plugged</sup>.

IV. CONTROL PANEL SWITCHES, INDICATORS, & ALARMS (CONTINUED)

D. Recovery Panel (Continued)

Alarms (Continued)

7. Calcium Stearate Tank Low Level - This alarm is not connected to any field equipment.

8. LS-1506,T-502 - This is the high level alarm for blend tank 502. It comes on when the slurry level in the tank reaches the high level probe  $3\frac{1}{2}$  feet from the top of the tank (at about a 90% level). Use the following troubleshooting procedures:

- ✓ First check to see if overflowing to sewer. Then →
- a. If the level indicator shows a level of around 90% or higher, identify any sources of material flowing to the tank (either from the control panel or the field) and shut them off. If the level does not stabilize according to the level indicators, notify the Shift Supervisor.

NOTE: If dumping into a slurry blend tank when the alarm comes on, dumping can continue if an operator with a radio is stationed on top of the blend tank and is visually watching the slurry level.

If the level does stop rising <sup>after</sup> taking correction <sup>ve</sup> action, continue to closely monitor the level until the alarm condition is corrected and the light goes out. Close

IV. CONTROL PANEL SWITCHES, INDICATORS, & ALARMS (CONTINUED)

D. Recovery Panel (Continued)

Alarms (Continued)

16. AMS Kill Sys. Old Rx. Instru. N<sub>2</sub> Low Press. (Continued)

the old unit have low pressure on the instrument nitrogen. The alarm is set off if the pressure on any of the instrument nitrogen systems for the Emergency AMS Kill System falls below 600 psig. Upon acknowledging the alarm, the lead operator will notify the "A" operator who will check the Emergency AMS Kill Systems for low pressure instrument nitrogen and will charge out the nitrogen bottle, if needed. If the problem cannot be solved promptly, notify the Shift Supervisor who will take action steps to clear the alarm condition so that the Emergency Kill System is functionable, if needed.

17. So. Wt. Strppr. Valve Out of Order - This alarm indicates that the valves are out of order on the south batch water stripper.

The following conditions may cause the alarm:

- a. Modicon problems - Get instrument maintenance to repair as soon as possible. Manual operation <sup>at the Strppr</sup> may be necessary until repairs are made.
- b. A valve open or closed in the wrong mode - Correct the problem from the panel by operating a valve, or have the "A" operator check the valve in the field and apply the Troubleshooting Procedures given in section III, V. of this manual.

IV. CONTROL ROOM SWITCHES, INDICATORS, & ALARMS (CONTINUED)

D. Recovery Panel (Continued)

Alarms (Continued)

19. South Water Stripper High Press. (Continued)

If the pressure indicator does not show a high pressure when the alarm goes off, have the "A" operator check the pressure in the field using a reliable pressure gauge. The pressure alarm or indicator may have malfunctioned and must be repaired promptly.

NOTE: Vinyl operators are responsible for changing out pressure gauges in the field as needed and for keeping reliable pressure gauges installed on equipment.

20. North Water Stripper High Press. - This is the high pressure alarm for the north batch water stripper. The alarm setpoint is 40 psig. Troubleshooting procedures and corrective action are the same as for the South Stripper High Pressure (above).

21. South Water Stripper High Level - This is the high level alarm for the south batch water stripper which comes on when an 80% level is reached in the tank. A high level capacitance probe located 86 inches from the ~~top~~ <sup>bottom</sup> of the tank sets off the alarm. When the alarm is acknowledged, the lead operator

is this the  
right no.?  
Number is  
right but  
position isn't.

IV. CONTROL PANEL SWITCHES, INDICATORS, AND ALARMS (CONTINUED)

D. Recovery Panel (Continued)

Alarms (Continued)

21. South Water Stripper High Level (Continued)

will check the tank level indication and will check for sources of the high level if it is high. If the tank is stripping, the lead operator must closely monitor the level during stripping to make sure the tank does not get above 90%. Notify the Shift Supervisor if the level gets above 90% and follow his instructions for clearing the alarm. If the level is high for no apparent reason from the control panel, have the "A" operator check in the field for sources of the high level, and continue monitoring the level. If the problem is not found and promptly solved, notify the Shift Supervisor. When corrective action is take and the level stops rising, the lead operator will continue to monitor the level until the alarm is cleared, in case it starts rising again.

If the level indicator does not show a high level and an alarm occurs, have the "A" operator check the level by the sight glasses on the tank. The level alarm or indicator may have malfunctioned and must be repaired by instrument maintenance personnel promptly. Use the sight glass level to go by until the instrument is repaired.

IV. CONTROL PANEL SWITCHES, INDICATORS, & ALARMS (CONTINUED)

D. Recovery Panel (Continued)

Alarms (Continued)

22. North Water Stripper High Level - This alarm is set off by a probe that is 86 inches from the top of the tank (approximately 80% on the level indicator). Use the troubleshooting procedures and corrective action given for the south stripper *high level*

*alarm*(above).

23. Wt. Stripper Low Press. Dump - This alarm indicates a low pressure in either of the batch water strippers. It goes off if the pressure of the tank falls below 2 psig. This is not a hazard unless the dump valve <sup>is</sup> ~~and~~ the tank is open, and the alarm should only come on if one of the strippers is in the DUMP mode. If the tank pressure is low and the dump valve is open, there is a chance of getting air into the stripper which could be a hazardous situation. Upon acknowledging the alarm, the lead operator should check the modes <sup>that</sup> ~~on~~ the strippers <sup>are in</sup> ~~and~~ If a stripper is dumping, the dump valve should have automatically closed when the alarm <sup>came</sup> ~~come~~ on. If it did not, have the "A" operator close the valve in the field. Pressurizing steam must then be used to pressurize the tank above 2 psig and clear the alarm.

IV. CONTROL PANEL SWITCHES, INDICATORS, & ALARMS (CONTINUED)

D. Recovery Panel (Continued)

Alarms (Continued)

24. Wt. Stripper Ready to Dump - This alarm indicates that the timer has gone out in the batch water STRIP mode and the stripper is ready to be prepared for dumping. Upon acknowledging the alarm, the lead operator will follow the operating procedures for the Batch Water Strippers (section III, I), Procedure number 7.

*Sound to me like the timer has failed, i.e. "has gone out"*

25. South Water Stripper Low Level - This alarm indicates a low level in the south batch water stripper and comes on 1½ feet from the bottom of the tank at approximately a 5% level on the level indicator. When this alarm is acknowledged, the lead operator will check the dump valve to make sure it is closed. If it is not, it must be closed either from the panel or the field, and the level should stop dropping. The lead operator will monitor the level until the alarm condition is corrected to make sure the level does not continue dropping, or drop after it had stabilized. If the tank empties, it can allow air into the tank, causing a hazardous situation.

IV. CONTROL PANEL SWITCHES, INDICATORS, & ALARMS (CONTINUED)

D. Recovery Panel (Continued)

Alarms (Continued)

26. North Water Stripper Low Level - This alarm indicates a low level in the South batch water stripper and is activated by a probe 1½ feet from the bottom of the tank (5% on the level indicator). Corrective action is the same as for the South Stripper Low Level Alarm (above).

E. Small Reactor Panels

Switches

The following switches are located on each old unit small reactor panel, D-300 through D-600. They are listed according to the labels above the switches and are the same for each of the reactors unless noted. The common name for the valve is given in parenthesis by each switch labeled. All of the switches are open/close switches unless specifically stated after the switch label given below:

1. Evacuation and Recovery

- a. Cond. Recov. Valve - (Condenser Valve) - Operates the valve at the top of the reactor condenser that is between the condenser and the recovery or evacuation valve.
- b. Evacuate Reactor - (Evacuation Valve) - Operates the valve between the condenser and the evacuation header.
- c. VCM Recovery Valve - (Recovery Valve) - Operates the valve between the condenser valve and the recovery header.

#### IV. CONTROL PANEL SWITCHES, INDICATORS & ALARMS (CONTINUED)

##### E. Small Reactor Panels (Continued)

##### Switches (Continued)

##### 6. Chemical Wash (Continued)

- b. To Condenser - (Condenser Chem Wash Valve) - Operates the valve between the chem wash header and the reactor condenser sprayhead.

##### 7. Cleaning

- a. Rinse To React. - (Reactor Rinse Valve) - Operates the valve between the rinse header and the reactor shell sprayhead.
- b. Wash Return - (Chem Wash Return Valve) - Operates the valve between the reactor manifold and the chem wash return header.

##### 8. Rinse

- a. Rinse to Cond. - (Condenser Rinse Valve) - Operates the valve between the rinse header and the reactor shell sprayhead.
- b. Rinse to Sewer - (Sewer Valve) - Operates the valve on the reactor manifold that goes to the sewer system (to the waste water ponds).

*These are listed according to the way the panel is labeled.*

*IN training sessions we point out which labels are incorrect. Once they get used to it there is no problem.*

IV. CONTROL PANEL SWITCHES, INDICATORS, & ALARMS (CONTINUED)

E. Small Reactor Panels (Continued)

Switches (Continued)

9. Slurry - Switch labeled "Slurry Dump" and valve is called the Slurry Dump Valve. This switch operates the valve ~~on the main-~~  
~~ifold~~ between the manifold and the dump header.

10. Emergency

- a. Emergency Cooling H<sub>2</sub>O - (Emergency Cooling Water Valve) -

This open/close switch ~~operates the reactor automatic~~  
~~cooling water valve~~ and overrides the temperature controller. When opened, the switch ~~c~~loses the automatic reactor cooling water valve and opens the automatic condenser cooling water valve wide open. When closed, the valves are controlled according to the reactor temperature controller.

- b. Emergency Mode - This is a specialized switch that has a red EMER. indicating light with ON and OFF pushbuttons. Normally, the reactor runs with the emergency mode switch off, and the ON and OFF pushbuttons are in the "up" position and the indicator light is not on. To bypass the Modicon and operate any of the reactor valves manually, push the ON pushbutton (it will stay down) and the red EMER. light should come on. The Modicon is then bypassed

IV. CONTROL PANEL SWITCHES, INDICATORS, & ALARMS (CONTINUED)

E. Small Reactor Panels (Continued)

Switches (Continued)

11. Other Switches (Continued)

b. Emer. AMS Injection - This specialized switch operates the actuated double block valves in the Emergency AMS Kill line at the top of the reactor. It has AUTO KILL and MAN pushbuttons with green and red indicator lights. When AUTO KILL is pushed, both actuated valves for that reactor will open and the green indicator light will come on showing that the valves are open. After about 30 seconds, the low level probe will shut the valves automatically and the red indicator light will come on showing that the valves are closed. When MAN is pushed, the valves will open and a green indicator light will come on showing that the valves are open, and the valves will only stay open as long as the MAN pushbutton is held down. When it is released, the valves close and the red indicator light comes on confirming valve closure.

c. Lamp Test - When pushed, this switch should light all of the lights on the recovery panel. Any lights that are not burning must be replaced according to the Panel Light Test Procedure give in section B.

*Need to say  
what to do if  
valves don't close  
due to no low  
level indication.*

*on the  
rec. panel.  
No  
Each Small reactor panel*

IV. CONTROL PANEL SWITCHES, INDICATORS, & ALARMS (CONTINUED)

E. Small Reactor Panels (Continued)

Alarms (Continued)

2. Agitator Amps (Continued)

<sup>Small</sup>  
under Reactor Panel Indicators, item 1 (above). Either a high or low amps signal will give an alarm on the panel. Upon acknowledging the alarm, the lead operator will check the amps indicator for the reactor and respond according to the following:

- a. Low Amps - If the amps have fallen off completely, try to restart the agitator using the start switch. If there is no response and the power is on, have the "A" operator reset the breaker. If the reactor is <sup>has been initiated,</sup> ~~"live"~~ (has been initiated but not killed) notify the "A" operator accordingly so that he will realize there is a potential emergency condition, and notify the Shift Supervisor (while monitoring the reactor pressure). Emergency AMS Kill Procedures (Operating Procedures, section C) must be followed.

If charging the reactor, stop the charge. If there is a plant power failure, follow the guidelines in Operating Procedures, section S. If the reactor <sup>has</sup> ~~is~~ not <sup>been initiated,</sup> ~~alive~~, correct the problem before charging it.

*Requires immediate attention if not a S/D agitator, low amps, be loss of agitation which is an emergency condition!*

IV. CONTROL PANEL SWITCHES, INDICATORS, & ALARMS (CONTINUED)

E. Small Reactor Panels (Continued)

Alarms (Continued)

3. AMS Kill Pot Low Level (Continued)

closed on the Emergency AMS Kill System used (the red light on the switch should come on).

If the alarm occurs when not using the Emergency Kill System, have the "A" operator check out the system and identify the problem. The sight glass should give the level in the pot (make sure it is not valved off). Check for leaks from the pot, refill the pot if needed, or write necessary work orders to repair the switches and alarms.

4. High Temp. - This is the reactor high temperature alarm. The setpoints for high temperature are set according to the product, as follows:

- a. 5385, 5425, 5465: 140°F
- b. 5305 (with CTA): 150°F
- c. 5265 (with CTA): 155°F

NOTE: The old unit small reactors normally only run 5385 resin, so the setpoint will be 140°F.

DTH 000110392

*A rx should never  
be changed if this  
alarm is on.*

IV. CONTROL PANEL SWITCHES, INDICATORS, & ALARMS (CONTINUED)

E. Small Reactor Panels (Continued)

Alarms (Continued)

5. High Press. (Continued)

Upon acknowledging the alarm, the lead operator will check the reactor pressure according to the indicator on the control panel. If charging the reactor, immediately move the reactor mode switch to POLYMERIZATION which will close all the reactor valves except steam to the jacket. Then follow Troubleshooting Procedures Number 8 (High Pressure) given in the Charge section of this manual, section III, B,2. If the reactor is "live" (has been initiated but not killed) follow Troubleshooting Procedures Number 5 (Temperature and Pressure Runaway) under Polymerization Operating Procedures, section III, C, in this manual.

If the reactor is not "live", determine the source of the pressure (either from the panel or in the field) and shut it off. If the pressure continues rising, notify the Shift Supervisor immediately. When stabilized, continue to monitor the reactor pressure until the alarm is cleared, to make sure that it does not start rising again.

DTH 000110393

IV. CONTROL PANEL SWITCHES, INDICATORS, & ALARMS (CONTINUED)

F. D-700 Panel (Continued)

Switches (Continued)

2. Reactor Charge (Continued)

- b. VCM Charge, CV-101 - ("A" VCM Charge Valve) - Operates the upstream (away from the reactor) VCM charge valve that is between the VCM charge header and "B" VCM charge valve.

The VCM charge line does not connect to the charge manifold

on D-700. *Instead, the VCM charge line is piped directly into the charge manifold.*

- c. Hot Water Charge - (Hot Water Charge Valve) - Operates the valve between the hot water charge line and the reactor manifold.

- d. Colloid Charge - (Methocel Charge Valve) - Operates the valve between the methocel charge header and the bottom of the reactor.

- e. VCM Charge, CV-134 - ("B" VCM Charge Valve) - Operates the downstream (closest to the <sup>reactor</sup> manifold) VCM charge valve that

is between the "A" VCM charge valve and the reactor ~~manifold~~.

*error. The VCM charge line does not connect to the charge manifold on D-700.*

- f. Initiator Charge - (Catalyst Charge) - This is an indicator switch that shows a green light when the catalyst charge valve is open and shows a red light when it is closed. The valve is operated from a switch in the field.

IV. CONTROL PANEL SWITCHES, INDICATORS, & ALARMS (CONTINUED)

F. D-700 Panel (Continued)

Alarms (Continued)

9. AMS Kill Pot Low Press. - This is the low pressure alarm for the Emergency AMS Kill Pot. The alarm indicates <sup>that</sup> a pressure below 250 psig exists in the D-700 Emergency AMS Kill Pot. Upon acknowledging the alarm under the normal operating conditions, the lead operator will notify the "A" operator to find the cause of the low pressure condition and to repressurize the pot correctly to 300 psig. Reasons for a low pressure may include nitrogen leakage from the tank, AMS leakage, or a low pressure nitrogen cycliner. If the reason for the low pressure cannot be found and corrected, notify the Shift Supervisor.

Under Emergency conditions when AMS is added to a reactor from the Emergency AMS Kill Pot, the low pressure alarm may come on, indicating that the AMS is flowing into the reactor as it should.

10. Agit Lube Oil High Temp. - This alarm indicates a high temperature on the D-700 agitator gearbox lube oil. The setpoint is  180°F. Upon acknowledging the alarm, the lead operator will notify the "A" operator to start the agitator lube oil pump if it is not running. If it is running, have the "A" operator