Monsanto	INSTRUMENT FUNCTION OUTLINE		CED LOOP NO. FIC-406-1 & Existing FICA-7		
	PLANT W. G. Krummrich		ISSUED BY C. J. Hans	DATE 7/23/71	PLANT LOOP NO.
DIVISION Organic	BLDG/DEPT 811.00	AUTH NO. 2417	REV. BY	DATE	REV / SHEET 1 OF

#6 CHLORINATOR BIPHENYL FEED CONTROLLER

1.0 NEED FOR LOOP

This loop is needed to assure that the proper amount of Biphenyl is added to the chlorinator. The parallel feed controller is needed to maximize the production of "mono" in the column system. The flow through-put of the existing FT-7 was too small to perform this function.

1.1 FUNCTION

1.1.1 Function

The function of this loop is to control the rate of flow of Biphenyl into the chlorinator and sound an alarm on low flow.

1.1.2 System Performance Required

The flow rate should be maintained $\pm$ 1/8 GPM of set point.

1.1.3 Accomplishment of Function

The Biphenyl flow rate is controlled by measuring the rate of flow in the line and transmitting an air signal proportional to this rate to an indicating controller; the measuring and transmitting is done by one of two differential pressure transmitters. One measures the flow across an orifice plate in the line for the "mono" operation and the other has an integral orifice for measuring the smaller flow in the 1016 operation. The indicating controller compares the air signal with a set point flow rate and sends a varying 3-15 psig signal to the Biphenyl control valve to compensate for variations from the set point. The transmitter also needs an air signal to a pressure switch which activates an alarm on low flow. The flow is also field indicated at #6 chlorimator and at the Biphenyl feed pump pushbutton.

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3.0 OPERATION

3.1 NORMAL OPERATION

a. 1016 Operation

1. Set selector switch in field to "1016" portion
2. Close valve to FT-406-1
3. Open valve to FT-7
4. Set controller set point to flow rate desired and place controller in "auto"position.
5. Open block valves in feed line

b. "Mono" Operation

1. Set selector switch in field to "Mono" position 100% = 35 gpm
2. Close valve to FT-7
3. Open valve to FT-406-1
4. Set controller set point to desired flow rate and place controller in "auto" position.
5. Open block valves in feed line.

3.1.1 Start-up

Same as above plus alarms should be checked.

3.1.2 Shutdown

a. Set FIC-7 set point to 0.

b. Close block valves in Biphenyl feed line

3.1.3 Manual Operating Instructions

a. Set FIC-7 on manual and control flow through FV-7 to #6 chlorinator by adjusting air output to valve.

3.2 INTERLOCKS

None.

3.3 ABNORMAL OPERATIONS

3.3.1 Air Failure

Air failure to the loop will cause control valve FV-7 to close.

3.3.2 Power

Power failure will cause the annunciator to be inoperative. The control valve will continue to operate.

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