PRESSURE SYSTEM OPERATIONS GUIDE

Industrial Process Unit 202

SYSTEM OVERVIEW

The pressure monitoring system uses differential pressure transmitters to monitor system pressure across critical process equipment. Normal operating pressure is 45 PSI with automatic safety systems activated at alarm setpoints.

Operating Parameters:

Normal Pressure: 40-50 PSI

High Alarm: 55 PSI

High-High Alarm: 65 PSI

Low Alarm: 35 PSI

PRESSURE ALARM RESPONSE

HIGH PRESSURE ALARM PROCEDURES:

1. Check downstream control valves for proper operation
2. Verify no blockages in discharge lines
3. Reduce feed pump speed if pressure continues rising
4. Monitor pressure trend for 5-minute intervals

HIGH-HIGH PRESSURE ALARM:

1. IMMEDIATELY reduce system throughput by 50%
2. Open pressure relief bypass if available
3. Check safety relief valve operation
4. Notify control room supervisor
5. Prepare for emergency depressurization

PRESSURE SPIKE TROUBLESHOOTING:

- Inspect control valve for sticking or failure
- Check for line blockages or restrictions
- Verify pump operation and discharge pressure
- Review recent process changes

CALIBRATION AND MAINTENANCE

Pressure transmitter calibration procedure:

1. Isolate transmitter from process
2. Apply known pressure using certified calibrator
3. Verify 4-20mA output corresponds to pressure range
4. Check zero and span adjustments
5. Document calibration results

Preventive Maintenance:

- Daily: Pressure readings verification
- Weekly: Visual inspection of transmitters and tubing
- Monthly: Calibration check
- Semi-annually: Impulse line flushing
- Annually: Complete transmitter replacement