

Station Health Check-Up



How Do Your Stations Stack Up?

Better Design Considerations

A station rooted in good design, operations and maintenance practices -and understanding of current conditions- is key to optimum station performance and minimizing system risk.

Pigging - Inline (ILI) Operations within a Station

Consideration should be given to what could possibly propagate downstream as a result of ILI operations and if any overpressurization events could occur as a result of the ILI.

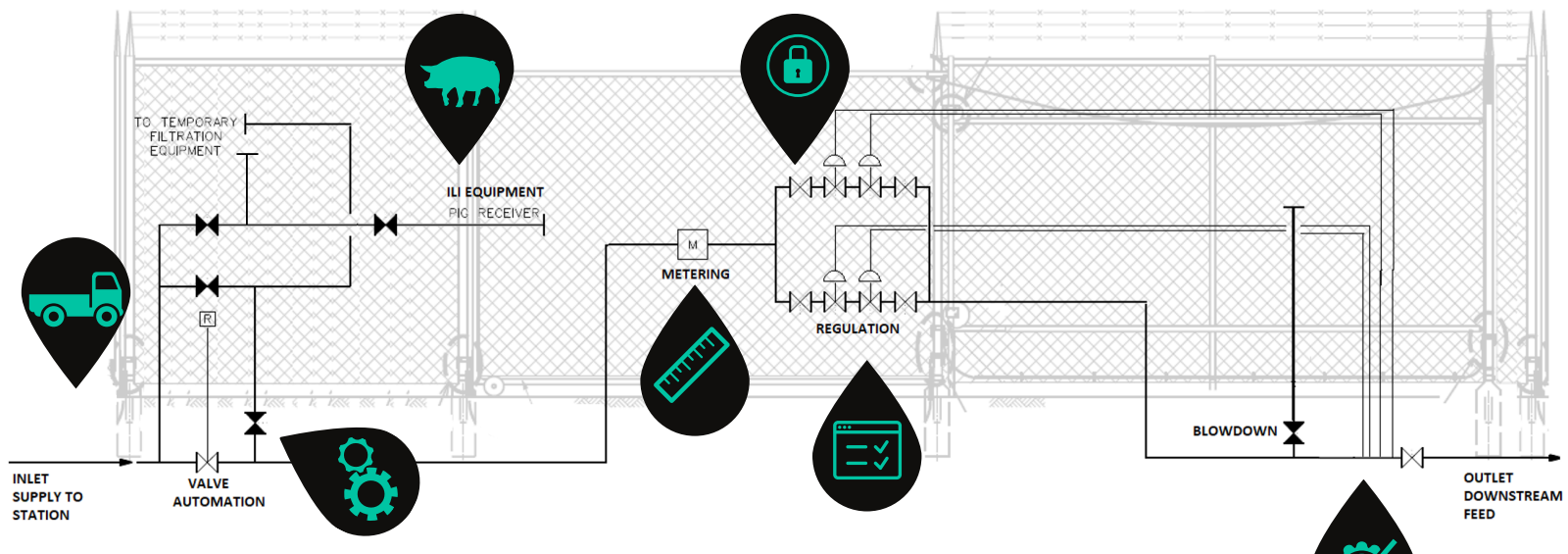
Metering

Accurate gas measurement is crucial for gas system operations including customer billing and system planning. Flow measurements can be useful SCADA data points which could be used for other purposes outside of billing and planning, for example, for valve automation and closure of an isolation valve.



Security

Different station types and "criticalness" of each facility should be evaluated for what levels of security should be in place.



Grading and Access

Proper station grading design and construction eliminate drainage problems, conveying water away from equipment and above ground appurtenances. Additionally, good station design takes into consideration access and vehicle movement through a station, especially critical for stations requiring large trucks for maintenance and operations activities.

Valve Automation

Starting Point: establishing company-wide philosophy and logic for if/where to automate valves, and ASV vs. RCV.

Regulation

Good design and maintenance practices are essential for safe operation of the downstream system. Considerations: are there solid, regimented design standards and practices in place for engineers in the installation of new stations (or rebuilds, or retrofits)? Are there good testing and maintenance procedures in place for configuring pressure control equipment? Are equipment issues captured, tracked and closed out via a work management process (via work tickets)?

Aware of PHMSA Rule Making "PHMSA-2013-0255"? Proposed regulation to install RCV, ASV or equivalent technology on all newly constructed and fully replaced gas transmission lines 6" or greater OR ensure a valve can be closed within a 40-minute timeframe. This is in addition to existing 49 CFR 192.935.

Valve Automation is going to become more prevalent, and consideration should be given to meeting and exceeding potential future code requirements. Are your operations set up for these future changes?

Sensing Lines

Considerations: are regulation equipment sensing lines located within the station boundaries? If not, are their locations known and marked? Are sensing lines protected? Is hard piping used over tubing? Are they located upstream of the outlet station block valve?

Records

Existing and accurate records are critical for asset knowledge, design, maintenance, and operations purposes. Operating Diagrams, or a high-level single line diagram of the station configuration, are typically the minimum drawing needed for understanding and safely operating a station.

Sensing lines with known locations and that are well protected minimizes risk for dig-ins and operations purposes (e.g., during clearances).

GTS can help you identify the status and health score of your stations. For more information contact our Business Area Lead Matt Leavy at mattleavy@gtcinc.us



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