OGA Technical seminar
Expanding Use of Excess Flow Valves
Beyond SFR Service Lines

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Today’s presentation based on presentation given at the AGA webcast given on February 5, 2013 by Bruce Paskett.
Agenda

• Background on EFVs
• NTSB Study and Recommendations
• 2006 PIPES Act
• DIMP / EFVs
• PHMSA Large EFV Team /Interim Evaluation
• PHMSA ANPRM Large EFVs & EFV Census
• 2011 Pipeline Safety Reauthorization
• Industry Proposal for Expanding Use of EFVs
• Operator Considerations for Expanding EFV Use
• Summary
Operators have installed EFVs for over 30 years
Over 9 million EFVs installed to date, primarily SFR applications
NTSB’s involvement began as early as 1972 with a special study (NTSB-PSS-81-1) published in Sept 1981
Regulatory focus started in 1988
First EFV regulation in 1998
Prior to regulation, some operators installed EFVs voluntarily as risk management practice
Typical EFV Installation on SFR
Issued recommendations P-81-38 and P-81-39

Safety Board stated it is especially concerned about non-availability of EFVs suitable for gas services for schools, churches, and places of public assembly.

P-81-38 – Issue rulemaking to require the installation of EFVs on all new and renewed single-family residential service lines.

P-81-39 – Use findings of research concerning additional locations where effective use can be made of EFVs so to extend the requirements for the use of EFVs.
• Issued after numerous incidents in Kansas City

• “Require the installation of EFVs on new and renewed single-family, residential high pressure service lines which have operating conditions compatible with the rated performance parameters of at least one model of commercially available excess flow valve”
NTSB EFV Recommendations  
P-96-2, 3/6/96

• Issued after incident at 8 story retirement home

• “Require gas-distribution operators to notify all customers of the availability of excess flow valves; any customer to be served by a new or renewed service line with operating parameters that are compatible with any commercially available excess flow valve should be notified; an operator should not refuse to notify a customer because of the customer’s classification or the diameter or operating pressure of the service line”
DOT/ RSPA issued the *Excess flow valve customer notification* rule (192.383)

Required operators to notify customers of the availability of excess flow valves on newly installed or replaced services lines to a single residence at customer’s expense

Notification not required if operators voluntarily installed EFV
NTSB EFV Recommendations
P-01-2, 6/22/01

• Issued in response to findings of South Riding, Virginia Incident (7/7/1998)

• “Require that excess flow valves be installed in all new and renewed gas service lines, regardless of a customer’s classification, when the operating conditions are compatible with readily available valves”
2006 PIPES Act

• Congress mandated that PHMSA prescribe minimum standards for integrity management programs for distribution pipelines (DIMP)

• Also mandated that DIMP include requirement for operators to install EFVs on new or entirely replaced SFR service lines after June 1, 2008

• Required operators to report number of EFVs installed to DOT annually
DIMP Final Rule

- PHMSA issued Final DIMP Rule 12/4/2009
- Revised Subpart H (192.383) to eliminate customer notification and require EFVs on new or replaced service lines to SFR customers after February 2, 2010 (Note: Congressional mandate June 1, 2008)
- Operators to report the number of EFVs installed annually on Distribution Annual Report
- Operators using EFVs as a risk-based A/A Action as part of DIMP Programs
Industry believed that SFR EFV requirements in the PIPES Act and use of EFVs under DIMP satisfied NTSB Recommendation P-01-2

However, NTSB reiterated Recommendation P-01-2 was not closed satisfactorily

In response, PHMSA formed “Large EFV Team” to study NTSB EFV Recommendation (6/23/2009)

PHMSA issued a draft technical report “Interim Evaluation: NTSB Recommendation P-01-2” to evaluate alternatives to satisfy NTSB
Industry Concerns re Large EFVs

• EFVs only work for significant line breaks. Can’t distinguish between a leak and a load
• Larger diameter service lines less susceptible to full line break than smaller SFR lines
• Operators don’t know the life-cycle load for customers at the time of installation- difficult to size
• Multi-family, commercial and industrial customers have great load variability over time. Change loads w/o notice to operators
• Inadvertent shut-off could create a greater hazard than the leak- unintended consequences
Requested Comments re *Interim Evaluation: NTSB Recommendation P-01-2* in four key areas:

- Technical Challenges
- Economic Analysis Considerations
- Technical Standards and Guidance for specification of EFVs
- Incorporation by reference of consensus standards; development of standards for sizing, specifying and installing EFVs
SEC. 22 Excess Flow Valves-

• Requires DOT to issue final report on evaluation of NTSB’s Recommendation on EFVs in applications other than services to SFR

• Not later than 2 yrs. after enactment, requires DOT, if appropriate, to issue rule requiring EFVs

  “where economically, technically and operationally feasible on new or entirely replaced distribution branch services, multi-family facilities, and small commercial facilities”
PHMSA EFV ANPRM

- Issued Nov 25, 2011
- In response to NTSB recommendation P-01-2, PHMSA is seeking public comment on several issues relating to the expanded use of excess flow valves (EFVs) in gas distribution systems.
Supported expansion of EFVs beyond SFR where “economically, technically and operationally feasible” (E,T & O)

“Interim Evaluation” understates complexities of expanding EFVs to other classes of customers

Defined specific applications beyond SFR where AGA supports installation of EFVs

Proposed applications cover > 95% of all new/replaced service lines
Proposed one-time data collection on EFVs

Census of gas operators to gather data on operator experience, benefits and costs w/ EFVs

Data for cost-benefit analysis for expanding EFVs

Census extremely comprehensive, but requested significant data that was unavailable

AGA worked with PHMSA, NAPSR & APGA to eliminate the EFV Census

Reaffirmed applications beyond SFR that industry supports as E, T & O feasible
AGA Proposal For EFV Installations That Are E, T & O Feasible

• Service line to single family residence (SFR)
• Branched service line to SFR
• Multi-family installations, including duplexes, triplexes and four-plexes with known load at time of service installation, based on installed meter capacity, up to 1,000 SCFH per service where load is not expected to increase significantly
• A single small commercial customer with known load at time of service installation, based on installed meter capacity, up to 1,000 SCFH on a single service line where load not expected to increase significantly
AGA Proposal For EFV Installations That Are E, T & O Feasible

• Proactively defines reasonable applications for installations that are “economically, technically and operationally (E, T & O) feasible”
• Addresses > 95% of all service lines going forward (retains existing EFV exemptions)
• AGA developed draft language for 192.381 and 192.383 consistent w/ industry criteria
• AGA has reviewed criteria and draft language w/ PHMSA and NAPSR leadership
Operator Considerations for Expanding EFVs Beyond SFR Applications by 6/30/13

- Update service line sizing/pressure drop calculations to reflect larger EFVs and diameters
- Determine EFV sizing relative to meter size
- Evaluate and purchase larger capacity EFVs
- Revise Policy and Procedures Manual to reflect new EFV Policy
- Revise Field Operations Manual to reflect new policy and train construction and Customer Service personnel
- Update documentation requirements
- Notify other departments of policy
Summary

- NTSB Recommendations continue to be a key driver in expanded use of EFVs
- 2006 PIPES Act mandated EFVs on SFR service lines
- ANPRM EFVs solicited comments on “Interim Evaluation” and expanded use of EFVs
- 2011 Pipeline Safety Act mandated EFVs on dist. branch services, multi-family and small commercial facilities where economically, technically and operationally feasible
- Industry waiting on PHMSA to issue the NPRM
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Questions

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