

 State Pipeline Safety Initiatives that Exceed Federal Code		ALABAMA	ARIZONA	ARKANSAS PSC	ARKANSAS OIL & GAS	CALIFORNIA PUC	CALIFORNIA SFM	COLORADO	CONNECTICUT	DISTRICT OF COLUMBIA	DELAWARE	FLORIDA	GEORGIA	IDAHO	ILLINOIS	INDIANA	IOWA	KANSAS	KENTUCKY	LOUISIANA	MAINE	MARYLAND	MASSACHUSETTS	MICHIGAN	MINNESOTA	MISSISSIPPI	MISSOURI	MONTANA	NEBRASKA	NEVADA	NEW HAMPSHIRE	NEW JERSEY	NEW MEXICO	NEW YORK	NORTH CAROLINA	NORTH DAKOTA	OHIO	OKLAHOMA	OREGON	PENNSYLVANIA	PUERTO RICO	RHODE ISLAND	SOUTH CAROLINA	SOUTH DAKOTA	TENNESSEE	TEXAS	UTAH	VERMONT	VIRGINIA	WASHINGTON	WEST VIRGINIA	WISCONSIN	WYOMING	Number of Initiatives in Subcategory	Number of States with Initiatives in Subcategory																									
		17	34	51	5	50	12	10	38	19	5	48	13	5	17	22	13	66	8	8	76	12	54	71	30	6	73	2	11	8	126	85	8	72	17	0	15	8	9	17	0	21	19	0	11	52	0	8	63	70	5	75	12	1477																										
Pressure Testing																																			33																																													
Additional requirements for Uprating for determining MAOP, testing within bulk loading facility, an intrastate transmission pressure testing plan must be developed and submitted																																			1	1	1	1																																		15	10							
Requires test pressure for transmission pipelines be maintained for a period of 24hrs, requires specified time period for pressure testing, requires independent witness of test, increased frequency, requires hydrotest or replacement of all intrastate transmission pipelines (no grandfathering) , requires calibrated instruments for pressure testing																																			1	2																																		9	5									
Requires Pressure Testing to more than 50% for certain operating pressures or more stringent minimums. All service lines must be pressure tested to at least 90 psig. No Pressure Testing allowed against a live operational valve																																			1	1	1	2																																		9	6							
Operating Pressure																																			42																																													
More restrictive limits on operating pressure. Max actual operating pressure must be < MAOP (cannot equal), Tag/post pressure reliefs with setpoint and downstream MAOP		1	1																																		1	2	1																																		19	15						
Multiple Pressure Recording Devices required per system, Recording device needs to be portable, Meters cannot be operated above specified % of pressure test																																			1																																		2	2										
Add 1 reqmts for overpressure protection, more frequent inspection cycles, District Regulator Stations required to be inspected monthly by operator																																			1	1	1	1	1	9	2	1																																		15	6			
Max pressure limit on cast iron pipe																																			1																																		2	2										
Must notify if low-pressure system exceeds 0.5 psi																																			1	2																																		4	3									
Damage Prevention																																			68																																													
Enhanced damage prevention requirements for pipeline operators such as: can only be member of single or specified One Call Ctr, must oversee all transmission line excavations and document all findings, extending training to local community colleges, pilot new technologies, transmission line and certain distribution line require enhanced marking and identification at specific locations, must monitor all excavations of sour gas, require pipeline support for deep excavations, on site inspections for transmission lines, specific damage prevention requirements for tilling and agricultural activities																																			1	2	1	2	1	4	2	2	3																																		17	9		
Identification tape above trench-installed																																			1	1	1	1	2																																		7	6						
Tracer wire requirements, RFID Electronic ball requirements		1																																		1	1	1																																		6	6							
Enhanced public notification and identification reqmts, screening process for one call ticket to reduce structures built on gas facilities, enhanced public awareness for operator's using trenchless methods																																			1	1	1	1	1	1	1	1	3																																		6	4		
Enforcement authority																																			1	1	1	1	1	1	1	1	1	1	1																																		11	11
Geohazard program, enhanced frequency of ROW inspection, Damage prevention performance limits in rates																																			2	2	1																																		4	3								
Certain CGA best practices required																																			2	2	1																																		5	3								
Locators to be knowledgeable of Trenchless Technology Techniques, Incorporate Trenchless techniques into procedures, Trenchless installations per GPTC Appendix G-192-6, requires test holes for all HDDs, exposure or instrumen required for HDD, facility protection required for shallow mains or transmission lines, mandatory exposure of foreign utilities when in close proximity to trenchless installations																																			2	1	4																																		9	4								
Locators to be Trained to a minimum requirement (NULCA or equiv), Limits Locators to in house (no outside contractors), locators must be qualified to CGA BP guidelines		1																																		2																																		3	2									



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Number of State Initiatives	17	34	51	5	50	12	10	38	19	5	48	13	5	17	22	13	66	8	8	76	12	54	71	30	6	73	2	11	8	126	85	8	72	17	0	15	8	9	17	0	21	19	0	11	52	0	8	63	70	5	75	12	1477			
Training/Quals (not including OQ)																																																					14			
Leak Surveys need Trained Personnel regarding equipment and Classification Procedures, Training Required for External First Responders, for all operations of sour gas including employee safety, for Flow Reduction or Flow Interruption during Emergency, and for Vegetation Management Leak Surveys			1														1					1		1						1																				1			5	5		
Exams/training reqmts for system managers, enhanced training program required, Written Emergency Plan must have provisions for installation and blasting that include PPE for workers and knowledge of state damage prev laws, Certification/extra training/including more frequent for polyethylene/plastic, requires locators be trained in trenchless installations and monitoring techniques/enhanced provisions for qualifications for plastic fusions												1		1			2			2					1								1	1																			9	7		
Operator Qualification																																																					18			
Additional Knowledge/Skill/Ability Demonstration, AOCs must be covered task specific, covered task must include SCADA and telemetry, covered task must include customer meter surveillance, specific covered tasks must include vault inspections																	1									1																										5	4			
OQ evaluation must include training, Additional Requirements for OQ Trainers and Evaluators, OJT methodology required to be documented																1		1								2									1																5	4				
OQ extended to cover construction, OQ covered task required for CNG transfers, OQ evaluation frequencies capped			1								1								1						1				2																						1	1			8	7
Meter Location/Protection																																																						37		
Meters/regulators must be outside (unless impractical)																								1								1						1																4	4	
Physical protection for meters													1												1							1	1																				6	6		
Residential services must be near bldg walls; no downstream buried pipe except outdoor services, Relocating meters from property line to building wall							1						1						1	2																																	7	6		
Customer Meters must be protected from snow and ice damage, other hazards													1	1					1					1							2																							6	5	
Master Meters no longer allowed		1		1		1					1				1				1											1	1		1																					9	9	
Meters must be replaced every 10 years, 7 years																						1					1					1																							2	2
Operator responsible for service lines regardless of meter location																			1						1					1																									3	3
Odorant																																																							44	
Increased testing frequency of odorant			1					1			1						1	1	1	1							2				1	2													2								15	12		
Odorant tests locations specified at furthest point from source			1																1													2																						5	4	
Lower limit for odorant, Limit for odorant throughout system																1																1		1																				5	5	
All intrastate lines must be odorized, Odorant requirement for transmission line											1															1																											1		3	3
Prompt action for insufficient odorization														1																	1	1		1																					5	5
Equipment requirements																																																							4	3
Farm tap requirements			1																																																				2	2
More specific reporting including locations, odorant types, and insufficient odorization level																																																							3	2
Increased testing requirements of Odorant for Master Meter Operators			1														1																																						2	2



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Specified separation from buried electric lines (12 inch, 8 inch), 48 inch separation for sour gas, 12" separation or other precautions for plastic (some states 6" separation)	1					1			1								1				1			1						1	1	2																1	1	1			14	13										
Trans. Rqmts apply to all pipe >125 psi in class 3 or 4, all pipelines must meet Class 3 or 4 requirements, all transmission lines must be classified as Class 3 or 4 regardless of location, all sour gas pipelines designed to Class 4 (0.40 factor). More restrictive design factors used for liquid pipelines by class location, prohibit composite materials for alt MAOPs, do not adopt Alternative MAOP									1														1	1								1	2																							9	8							
Mains with MAOP > 200 psig or 125 psig or 250 psig) must meet enhanced design, construction and maintenance requirements																							1									1																								3	3							
Inlet AND outlet valves at distribution regulator stations or specified distances from the station, vault design requirements									1			1												2									1																								9	6						
Adequate over pressure protection required at town border stations and district regulating stations including if pre 1971 installation, relief valve at underground storage field, District Reg Station Fencing Requirements, Vault Requirements																									2																															4	3							
Device must be installed for monitoring and indicating failure of operating regulator within Over Pressure Protection System, Break out Tank Requirements, revise heater requirement at regulator station																																																									5	5						
Directional Drilling requirements, construction requirements to avoid gas/air explosive mixture, joint trenching requirements																																																									6	5						
Identification of facilities required: multiservice installations, meters, district regulator stations, above ground installations													2																																												4	2						
Telemetry required at regulator stations serving specified quantity of customers																																																										3	3					
Casings prohibited on metal pipelines, casing requirements preventing shearing, GI-91/028S Guidelines for Pipelines Crossing Rails and Highways when no casing is used, casing design, API 1102 incorporated, plastic service lines must be encased in vault or pit, closed ends for encased plastic																																																											9	4				
Does not allow gas lines, haz liq lines under buildings, no concealed copper services and fitting restrictions on copper services	1					1						1																																														9	7					
Location restrictions for higher-pressure systems, pipelines must consider overhead electric transmission influence, high consequence areas and easements of hazardous liquid pipeline must be clear of all encroached structures						2																				1																																5	4					
Expanded Incorporation By Reference for Acceptable Engineering Standards: NFPA54 most recent edition, NFPA 59 most recent edition, NFPA 70 edition at time of installation, NBS Method of Gas Testing, NBS Testing Lg Cap Rot Meters, AGA No.3 Orifice Metering, WV Short Course on Practical Methods, National Association of Corrosion Engineers International Standard NACE MR0175/ISO 15156, 2004-2007, Orifice Metering Constructed/Maintained per AGA GMC Rpt #3																																																											7	6				
No buried galvanized or aluminum pipe	1																																																										2	2				
Specific Design Requirements for Pipe Type Holders and Bottle Holders, encourages removal of BH						6																																																					8	3				
Specifies restoration of agricultural land after installation occurs, protective coating of steel services when boring through rocky soils																		1																																													2	2



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Risk-based approaches																																								24														
Requires automated platform to capture high quality and accurate facility data. Requires customer meter surveillance program with DIMP																																									2	1												
Inline inspections required to reveal cross bore of sewer laterals																																									2	1												
Base line and trending of cast iron and bare steel, non hazardous leaks, steel service line repair analysis and requirement, risk assessments required for underground gas storage facilities																																									3	2												
Operators required to perform integrity assessments of entire line section, temporary and permanent repairs based on inspections to reveal defects, gouges, dents or leaks, requires operator determination of plant replacement based on operator inspections, risk based alternatives approaches for pressure testing not allowed on liquid lines, liquidlines leak detection for integrity performed under specified flow conditions, requires use of best available technology in risk determinations for haz liquid pipelines, Method 2 prohibited for UCA's for certain conditions																																								1														
Annual eval of bare/cast, Annual evaluation of threats/risks, service riser evaluations that are prone to leaks, inactive services must be included in DIMP	1																																									8	7											
Enhanced Record Keeping																																								100														
OQ must cross reference with O&M and Emergency Plan, requirement for Security Plan																																									2	2												
Maintain Records of Abandon Mains or facilities after a given date	1																																									5	5											
More stringent data elements such as Test Pressures, Duration of Strength Test, Date, Description of Facilities, retention of pressure charts, testing services in equivalent manner as mains with associated records																																									8	7												
Regulator & Relief Valve Cales required of all OPP devices																																									2	2												
All Records must be kept InState or accessible instate, requires detailed record keeping of outages, all records must be available for life of pipeline, Lifetime Records requirement for all Public Outreach, enhanced record keeping for gas and hazardous liquid near schools, material tracking and traceability requirements																																								1	13	11												
Odorometer Records must be kept for specified duration, odorant records include sampling and odorant quantities used																																									6	5												
Leak Survey Records or Leak Investigation Records required for longer than 5 years																																									7	7												
Lifetime Records requirement for Corrosion Control of all Pipelines	2																																									3	2											
Lifetime Records requirement for Strength Testing of all Pipelines																																									5	5												
Lifetime Records requirement for Welding of all Pipelines, Welding Records must be at job site																																									2	2												
All Key Valves or Critical Valves must be identified on Records/Maps, location records required for shallow pipelines and protective device	1																																									6	5											
Enhanced Corrosion Records such as documentation of corrosion areas, active corrosion, schedules of placement of cathodic protection devices, maps and records of cathodic protection devices	1																																									6	4											
Enhanced Meter Record Details Required (Capacity, Purchase Date, Type, Location, Pressure Rating, Accuracy Etc.)																																									5	5												
Maintain Calibration Records and Identification of Equipment for specified duration																																									2	2												
Leak Progression Maps must be updated and maintained (or reported)																																									2	2												
Investigate and Maintain Records of all Leaks as Failures, detailed leak reporting including cause, Records shall be kept as to leak complaints and remediation of leaks																																									5	5												
O&M must include updates based on past violations, thorough and complete records review requirements																																									2	1												
GPS Coordinates required to be taken on exposed main, tees, valves, etc..																																									2	2												
Detailed Mapping Requirements, GIS Mapping Required	4	1																																									17	12										



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Inactive Services																					1													1																			19					
Requirement to cut inactive services off at main during demolition																					1																																		2	2		
Deadline requirement to cut inactive services off at main or meters after specified time period	4	1						1		1											1	2								1									1	1							1	1							17	13		
Stronger Enforcement Penalties																							1											4																					6			
Civil penalties applied can exceed federal maximum penalty					1																		1																															6	3			
State Inspection Programs																																																							56			
Ability to Use Outside Consultants for State led inspections when necessary, State to maintain GIS database of haz liquid pipeline operators and historical activities								1																		1																													2	2		
Inspections focused by risk						1										1											1																					1	1				1				7	7
More frequent inspections/ contact/detailed audits	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	2		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	47	46		
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