



Effective Date: 06/01/2021

Appendix B: Abnormal Operating Procedures

REACTION LEVEL TO ABNORMAL OPERATING CONDITIONS		
LEVEL 1	LEVEL 2	LEVEL 3
<p>1. Call 911 for any Abnormal Operating Condition that represents an existing or probable hazard to persons or property.</p> <p>2. Immediately remove all persons (including members of the public) to a safe distance upwind from the location of the Abnormal Operating Condition, and eliminate any potential ignition sources.</p> <p>3. Call Atmos Energy at 1-866-322-8667 with the following information:</p> <ul style="list-style-type: none"> State you have a Level 1 condition State location and details of the condition 	<p>1. Call Atmos Energy at 1-866-322-8667 with the following information:</p> <ul style="list-style-type: none"> State you have a Level 2 condition State location and details of the condition <p>2. Call 911 as directed by Atmos Energy or should conditions represent a hazard to persons or property.</p> <p>3. Continue to monitor the situation if conditions warrant elevate to Level 1.</p>	<p>1. Immediately notify the Atmos Energy Representative responsible for the assigned work activity.</p> <p>2. Continue to monitor the situation If conditions warrant, elevate level as appropriate.</p>

ABNORMAL OPERATING CONDITIONS

Covered Task	Task Title	Abnormal Operating Conditions (General)	Reaction Level
M16	Recognize and React to Abnormal Operating Conditions	Unplanned Escape of product from a pipeline	1
		Fire or Explosion	1
		Unexplained / Unplanned pressure deviation (increase, decrease, high, low, absent)	2
		Unexplained / Unplanned flow rate deviation (high flow, low flow, no flow)	2
		Pipeline damage (line hit, lightning strikes, tornado, flood, earthquake, etc)	2
		Activation of a safety device (pressure relief, emergency shut down, high or low pressure alerts, high pressure shut downs, high temperature shutdowns, etc)	2
		Unexplained / Unplanned status change of a gas facility (Examples may include: unit start-up, unit shut-down, valve open, valve close, etc.)	3
		Communications, control system or power interruption or failure	3
		Inadequate odorization or reports of gas odor	3
		Vandalism / Terrorism	3

NOTE

Abnormal Operating Conditions identified in Covered Task M-16 may also apply to many of the other Covered Tasks further contained in this Appendix B.



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Covered Task	Task Title	Abnormal Operating Conditions (Task Specific)	Reaction Level
E01 E02	E01 Welding in a Fixed Position using Manual Metal Arc Weld E02 Welding Branch Connections using Manual Metal Arc Weld	Pitted Pipe Surface	3
		Arc Burns	3
		Weather conditions	3
		Welding surface oily or contaminated	3
		Welding undercutting	3
		Stringer bead evaluation	3
		Welding under high voltage electrical power line	3
		Invasion Tubing	3
E05	Perform non-destructive Test on Steel Welds	Release of Testing Sources	3
		Defective welds and flaws in welds	3
		Unprotected work area	3
		Poor equipment condition and/or film quality	3
E06	Visual Inspection of Steel Welds	Defective welds and flaws in welds	3
		Extreme wind and cold temperature conditions	3
F01	Joining or Capping of Polyethylene Pipe with Electrofusion (Coupling Fusion)	Defect on pipe surface	3
		Insufficient Power	3
		Defective fitting or incorrect barcode scan	3
		Weather (Rain, snow, temperature, etc.) effects fusion process	3
		Defect on electrofusion joint	3
		Hazardous atmosphere	3
		Electrofusion processor malfunction	3
		Joint fails during pressure test	3



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F02	Joining of Polyethylene Pipe with Electrofusion (Saddle Fusion)	Defect on pipe surface	3
		Insufficient Power	3
		Defective fitting or incorrect barcode scan	3
		Weather (Rain, snow, temperature, ect.) effects fusion process	3
		Defect on electrofusion	3
		Hazardous atmosphere	3
		Electrofusion processor malfunction	3
		Joint fails during pressure test	3
F03	Joining or Capping of Polyethylene Pipe with Heat Fusion	Defect on pipe surfaces	3
		Fusion iron not operating at proper temperature	3
		Weather (Rain, snow, temperature, ect.) effects fusion process	3
		Hazardous atmosphere	3
		Misaligned pipe that can't be adjusted	3
		Unacceptable fusion visually	3
		Joint fails during pressure test	3
F04	Joining of Polyethylene Pipe with Heat Fusion (Sidewall fusion)	Defect on pipe surfaces	3
		Unexpected weather conditions	3
		Contaminates present	3
		Change in work conditions	3
		Hazardous atmosphere	3



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F06 F07	F06 Joining of Polyethylene Pipe with Mechanical Compression Collar Fitting	Defect on pipe surface	3
		Surface contamination	3
		Leaking Fitting	3
	F07 Joining of Polyethylene Pipe with Mechanical Coupling (Stab)	Hazardous atmosphere	3
		SDR on pipe and fitting not compatible	3
		Change in work conditions	3
			3
F08 F09	F08 Joining of Polyethylene Pipe with Bolt-on Tapping Tee	Defect on pipe surface	3
		Surface contaminated	3
		Leaking fitting	3
	F09 Joining of Polyethylene Pipe with Bolted Type Mechanical Fitting	Improper size stiffener	3
		Improper alignment	3
		SDR on Pipe and fitting not compatible	3
		Hazardous atmosphere	3
F10	Joining of Polyethylene Pipe with Compression Nut Type Mechanical Fitting	Defect on pipe surface	3
		Surface contamination	3
		Leaking Fitting	3
		Improperly sized stiffener	3
		SDR on pipe and fitting not compatible	3
		Improper alignment	3
		Hazardous atmosphere	3
F11	Repairing Non PE Plastic Pipe	Defect on pipe surface	3
		Surface contaminated	3
		Leaking fitting	3
		Improperly sized stiffener	3
		Improper alignment	3



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G01	Repairing Steel Pipe - Distribution	Hazardous condition exists	3
		Possible ignition sources	3
		Static electricity on polyethylene pipe or induced/stray current on steel pipe	3
		Unexpected pipe type, size, depth, condition, or pressure	3
G02	Installing of Underground Casing	Unexpected elevation change from one side of bore to the other prior to casing installation.	3
		Casing shorted during installation.	3
		Damage on carrier pipe	3
G03	Installation / Excavation of Pipeline	Indications of a presence of non-located buried facilities	3
		Damage to foreign utilities	3
		Shifting or unstable soil which may allow pipeline to become unsupported	3
		Damage to pipe	3
		Aboveground facility exposed to vehicular traffic	3
H01	Installing / Replacing Meters	No regulator or overpressure protection installed to protect against meter overpressure	3
		Meter in hazardous location	3
		Meter in contact with inlet riser, or ground surface	3
		Meter Leaking	1
H02	Installing / Replacing Regulators	Regulator venting gas or fails lock-up	3
		Operating above or below proper pressure	3
		Inlet pressure is higher or lower than expected	3
H03	Installing / Replacing Service Lines	Improper pipe size	3
		Blowing gas	1
		Damaged Pipe or pipe coating	3
		Fitting defect	3
		Failed pressure test	3



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I01	Conduct Pipe to Soil Measurements	Improper Voltage reading	3
		No reading	3
		Test Station is inaccessible, damaged or missing	3
I02	Monitoring Rectifiers	Voltage present on rectifier housing	3
		No voltage present	3
		No amperage present	3
		Improper DC voltage/amperage present	3
		Major increase in pipe to soil readings	3
I03	Monitoring Interference Bonds	Voltage not present	3
		Bond broken	3
		Improper reading	3
I04	Installing or Repairing Impressed Current Systems or Interference Bonds	Rectifier cabinet energized	3
		Bond case energized	3
		Damage to rectifier or bond	3
I05	Installing/Replacing CP Test Leads to Pipe	Pitted pipe wall at thermite connection point	3
		Improper shot size	3
		Powder wet	3
		Wet Cadweld Mold	3
I06	Installing Anodes and Insulating Devices	Pitted Pipe wall at thermite connection point	3
		Improper shot size	3
		Wet Powder	3
		Wet Cadweld Mold	3
I07	Inspecting for External Corrosion and Repairing Pipe Coating	External corrosion resulting in excessive wall loss	3
		A/C voltage	3
		Disbonded or damaged coating	3
		Piping is in contact with foreign structure	3



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I08	Installing, Inspecting and Testing Electrical Isolation Devices	External corrosion on buried piping	3
		Insulation device failure or electrical isolation cannot be obtained	3
		Shorted to foreign pipelines / structures	3
		Interference currents	3
I09	Internal Corrosion Control	Recognize presence of internal moisture and/or bacteria	3
		Internal pipe wall loss	3
		Liquids or solids in line	3
I10	Atmospheric Corrosion	Gas is escaping as a result of atmospheric corrosion	1
		Metal loss (corrosion) is observed	3
L01	Tapping Steel Pipelines Under Pressure	Fitting is not rated for MAOP of the line	3
		Coupon not recovered	3
		Pressure above MAOP	3
		Unexpected pipe type, pipe size, or pressure	3
		Ignition sources	3
		Improper Travel	3
		Damaged or corroded pipe	3
		Failed pressure / leak test	3
L02	Activating and Purging / Blowdown Pipelines	Pipeline is over ½ a mile and over 4" in diameter	3
		Ignition	1
		Moisture or other contaminants	3
		Presence of H ₂ S	1
		Missing odorant on odorized systems	3
L04	Tapping Pipelines Under Pressure with Self-tapping Tee	Pressure above MAOP	3
		Fitting failed during tapping process	3
		Malfunctioning self-tapping tee	3
		No presence of gas	3



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L07	Tapping PE Pipelines Under Pressure	Tapping Equipment and/or fitting is not rated for MAOP	3
		Coupon not recovered	3
		Pressure above MAOP	3
		Unexpected pipe type or pipe size	3
		Ignition source present	3
		Improper travel of tapping tool	3
		Damaged pipe	3
L08	Perform Non-Destructive Test on Steel Pipeline (Properties and Attributes)	Improper surface preparation	3
		Defects in base metal, flaws in pipe joints/seams and/or insufficient pipe-grade or wall thickness	3
		Incorrect Procedure used	3
		Poor equipment condition and/or improper calibration	3
M02	Conducting Pipeline Patrolling Surveys	Structure built over or in direct vicinity of gas line	3
		Abnormal stress / exposed pipeline	3
		Unauthorized taps or vandalism to pipeline	3
		Incorrect / damaged pipeline markers	3
		Contacts to above ground foreign structures	3
		Indication of potential leak	3
		Above ground transmission line or main exposed to other outside forces without protection	3
M03	Locating and marking lines	Line is not locatable using line locating equipment	3
		Line is not properly mapped	3
		Denied Access	3
		Excavation activity has started prior to line being marked	3
M04	Testing Service Lines (New and Reinstating)	When service line test or soap test indicates leakage	3
		Defects in pipe surface	3
		Malfunctioning EFV	3
M05	Testing Mains and or Transmission Lines	Defects on pipe surface	3
		Failed pressure test.	3



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M07	Performing Valve Inspection and Maintenance	Inoperable or broken valve	3
		Leaking	1
		Not locatable / missing valve box	3
		Valve not accessible	3
		Valve on site does not match records	3
M08	Preventing Accidental Ignition	Sources of ignition	3
		Uncontrolled escaping natural gas	1
M09	Making Permanent Repairs on Transmission Lines	Gas Leak	3
		Pipe Surface conditions	3
		MAOP Factors	3
M10	Inspect, Repair, Tap and Protect Cast Iron Pipe	Gas Leak or presence of cracks in cast iron	3
		Graphitization	3
M11	Abandoning/Deactivating or Shutting Down Gas Pipelines	Hazardous atmosphere	3
		Unable to complete blowdown or achieve isolation	3
		Unexpected pipe type, pipe size, or pressure	3
M14	Damage Prevention during Excavation or Encroachment	Indications of non-located buried facilities.	3
		Damage to buried facilities	3
		Right of way encroachment	3
M15	Leak Classification	Leak that represents immediate or probable hazard to persons or property	3
		Unfavorable weather / ground conditions	3
		Combustible Gas Indicator malfunction / out of calibration	3
M17	Installing / Maintaining Pipeline Markers	Pipeline marker missing	3
		Pipeline marker improperly located, damaged, not legible, or missing required information	3
M18	Inspect Vault Conditions	Hazardous atmosphere within the vault	3
		Operational failure of any existing ventilation equipment	3
		Failure of the vault covers to the point where they are a potential hazard	3
M21	Removing / Deactivating / Purging Gas Meters	Service valve is damaged or does not stop the flow of gas completely	3
		Hazardous atmosphere	3
		Cannot access service valve	3



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O01	Conducting Indirect Inspections	Cannot access pipe to be evaluated	3
		Cannot locate pipe to be assessed	3
		Unexpected barriers	3
O02	External Pipe Inspection for Anomalies	Cannot directly observe pipe surface	3
		Cannot determine geometry of anomalies	3
		Unexpected barriers	3
		Potential safety condition observed (i.e. pit depth 70% of wall)	3
O03	Internal Corrosion Inspection (Non-destructive)	Cannot access pipe surface	3
		Cannot access internal pipe condition	3
		Unexpected barriers	3
		Potential safety condition observed	3