





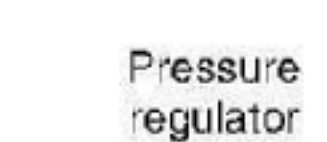
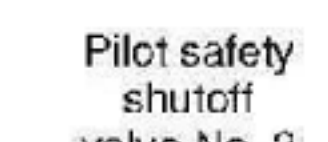



Customer	Acme Incorporated
Contact Name	W. E. Coyote
Job Number	53801
Plant Location	123 Roadrunner Avenue, Tombstone, AR 56884
Plant Name	Test Plant
Service Representative	Michael Grant
Date of Service	12/26/16

Fuel Devices

Key	Safety shutoff valve requirements		
	Under 150,000 Btu/hr	150,000 to 400,000 Btu/hr	Over 400,000 Btu/hr
Safety shutoff valve			
Safety shutoff valve with visual identification			
Safety shutoff valve with visual identification and proof of closure			

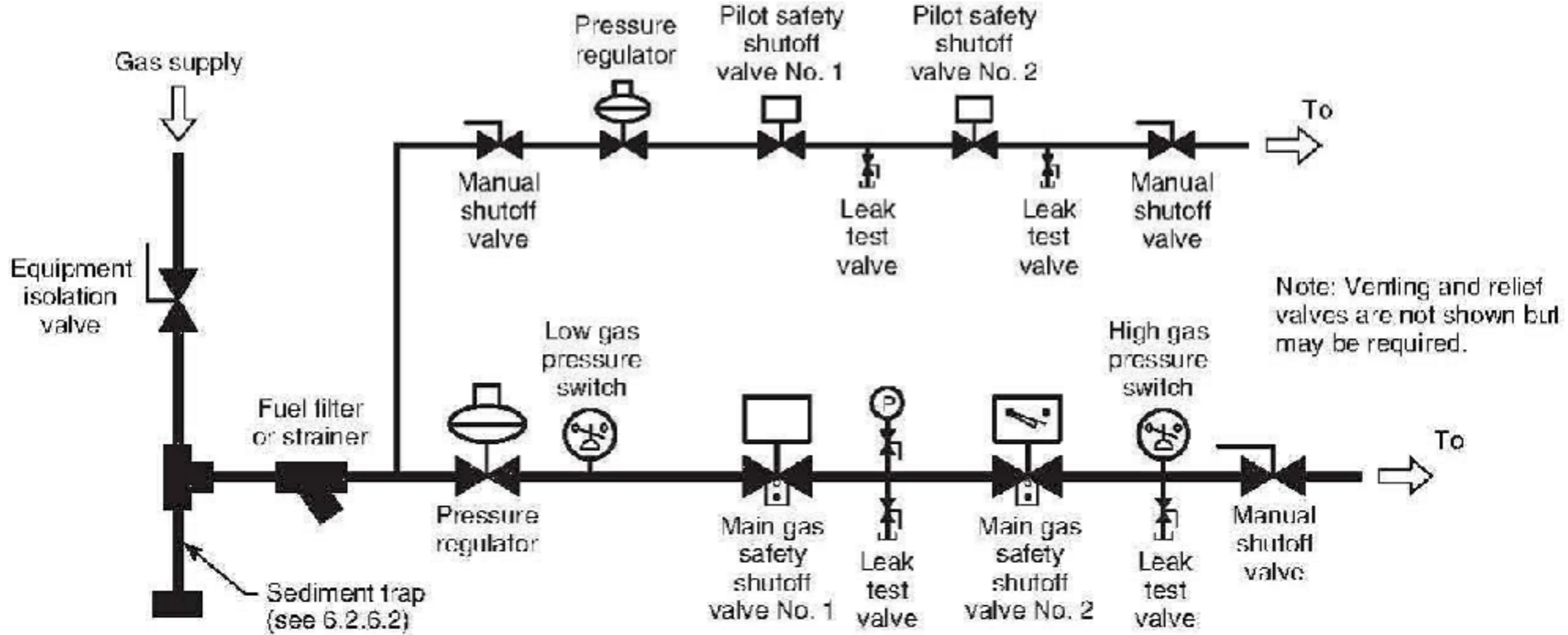


FIGURE A.8.7.2 Typical Piping Arrangement Showing Fuel Gas Safety Shutoff Valves.



Equipment Information

Equipment Name	Oven #1	Equipment Type	Oven
Burner Manufacturer	Eclipse	Burner Rating	1.5 mm btu/hr
Model Number	AH120	Serial Number	1045678-12
Zone Number	1 of 1	Fuel type	Natural Gas

Safety Data

Device	NFPA / MSI Test	Pass	Fail	Repaired?	Setting	Measured Units	Notes
Main Gas Supply	MSI tests to ensure that the supply pressure is absent of fluctuations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7	PSI	Good
Sediment Trap	*6.2.5.1 A sediment trap or other means of removing contaminants shall be installed downstream of equipment isolation valve and upstream of all other fuel gas system components	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Not Installed	N/A	Not Installed
Fuel Filter / Strainer	*6.2.5.3 A gas filter or strainer shall be installed in the fuel gas piping and shall be located downstream of the equipment isolation valve and sediment trap and upstream of all other fuel gas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Not Installed	N/A	Not Installed
Pressure Regulator	*6.2.6.1 A pressure regulator shall be furnished whenever the plant supply pressure exceeds the burner operating or design parameters or whenever the plant supply pressure is subject to fluctuations	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	PSI	Good
Low Gas Switch	*8.9.1 A low fuel pressure switch shall be provided and shall be interlocked into the combustion system circuitry	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	PSI	Good
High Gas Switch	*8.9.2 A high fuel pressure switch shall be provided and meet the following criteria: (1) Shall be interlocked into the combustion safety circuitry; (2) Shall be located downstream of the final pressure reducing regulator	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5	PSI	Good
Main Gas Valve 1	*7.4.9 Valve seat leakage testing of safety shutoff valves and valve proving systems shall be performed in accordance with manufacturers instructions	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Bad	N/A	Fail (Sticking)
Main Gas Valve 2	*8.8.2.1 & 7.4.9 Each main and pilot fuel gas burner shall be equipped with either of the following: (1) Two safety shutoff valves piped in series; (2) Radiant Tube...	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Bad	N/A	Fail (Sticking)
Manual Shutoffs	*6.2.4.1 (7) Shall be able to be operated from full open to full close and return without the use of tools.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Good	N/A	Good
Vent Valve	MSI (if the system utilizes a vent valve it will be tested to ensure no leakage is occurring during operation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Good	N/A	Good
POVC Switch	8.8.2.2 Where the capacity of the main or pilot fuel gas burner system exceeds 400,000 But/hr at least one of the safety shutoff valves between each burner and the fuel supply shall be proved closed and interlocked with the pre-ignition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Good	N/A	Good



Safety Data

Device	NFPA / MSI Test	Pass	Fail	Repaired?	Setting	Measured Units	Notes
Pilot Gas Supply	MSI tests to ensure that the supply pressure is absent of fluctuations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7	PSI	Good
Pilot Regulator	*6.2.6.1 A pressure regulator shall be furnished whenever the plant supply pressure exceeds the burner operating or design parameters or whenever the plant supply pressure is subject to fluctuations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	"wc	Good
Pilot Gas Valve 1	*7.4.9 Valve seat leakage testing of safety shutoff valves and valve proving systems shall be performed in accordance with manufacturers instructions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Good	N/A	Good
Pilot Gas Valve 2	*8.8.2.1 & 7.4.9 Each main and pilot fuel gas burner shall be equipped with either of the following: (1) Two safety shutoff valves piped in series; (2) Radiant Tube...	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Not Installed	N/A	Fail (Not Installed)
Pilot Manual Shutoffs	*6.2.4.1 (7) Shall be able to be operated from full open to full close and return without the use of tools.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Good	N/A	Good
Pilot Vent Valve	MSI (if the system utilizes a vent valve it will be tested to ensure no leakage is occurring during operation)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	N/A	Not Applicable
Pilot POVC	8.8.2.2 Where the capacity of the main or pilot fuel gas burner system exceeds 400,000 But/hr at least one of the safety shutoff valves between each burner and the fuel supply shall be proved closed and interlocked with the pre-ignition purge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	N/A	Not Applicable
Circulation Fan 1	8.6.1 Where a fan is essential to the operation of the oven or allied equipment, the fan operation shall be proved and interlocked into the safety circuitry	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			Not Installed
Circulation Fan 2	8.6.1 Where a fan is essential to the operation of the oven or allied equipment, the fan operation shall be proved and interlocked into the safety circuitry	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			Not Installed
Exhaust Fan 1	8.6.1 Where a fan is essential to the operation of the oven or allied equipment, the fan operation shall be proved and interlocked into the safety circuitry	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			Not Installed
Exhaust Fan 2	8.6.1 Where a fan is essential to the operation of the oven or allied equipment, the fan operation shall be proved and interlocked into the safety circuitry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			Not Applicable
Combustion Air Switch	*8.7.2 Reduction of airflow to a level below the minimum required level shall result in closure of the safety shutoff valves	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	"wc	Good
Purge Time	*8.5.1.2 A timed pre-ignition purge shall be provided	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2:30	Minutes	Good
Operating Control	MSI (operating temp. accurate?)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	314	°F	Good
High Limit Control	*8.16.4 Operation of the excess temperature limit interlock shall require manual reset before restart of the furnace or zone	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	450	°F	Good
High Limit Indication	*8.16.6 Excess temperature limit interlocks shall be equipped with	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Good	N/A	Good
Chamber Pressure	MSI (within operating parameters of burner capabilities?)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Fuel / Air Ratio	MSI (within manufacturers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		N/A	
Low Fire ^P Fuel	MSI (within manufacturers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
High Fire ^P Fuel	MSI (within manufacturers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	PSI	
Low Fire ^P Air	MSI (within manufacturers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
High Fire ^P Air	MSI (within manufacturers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20	"wc	
Low Fire O2%	MSI (within manufacturers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		%	
High Fire O2%	MSI (within the manufacturers specs?)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		%	
Low Fire CO PPM	MSI (within the manufacturers specs?)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		PPM	
High Fire CO PPM	MSI (within the manufacturers specs?)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		PPM	
Flame Signal	MSI (within the FSG's specs?)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5	VDC	Good

Device	NFPA / MSI Test	Pass	Fail	Repaired?	Setting	Measured Units	Notes
Igniter	MSI (Igniter in good condition?)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Good</i>	<i>N/A</i>	
Flame Sensor	MSI (working properly?)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Good</i>	<i>N/A</i>	<i>Good</i>
Combustion Blower / Burner Clean?	MSI (Cleanliness of the burner and combustion blower will affect the burners performance and longevity)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Good</i>	<i>N/A</i>	<i>Good</i>

Equipment Components:

Description	Brand	Model	Serial / Size
Flame Safeguard	Honeywell	RM7838	B 1013
Low Gas Switch	Honeywell	Mercury	1-5 PSI
High Gas Switch	Honeywell	Mercury	1-10 PSI
Actuator Motor	Maxon	13344	2 1/2" Threaded
High Temp. Limit	Honeywell	UDC2000	9725Y731349700001
Temp. Controller	Honeywell	UDC3000	0249Y257432400001
Main Gas Valve	Maxon	2" 5000-1	97A313573
Vent Valve	Asco	A488739	1" threaded
Pilot Solenoid	Asco	B8215G20	A625563
Combustion Air Switch	Honeywell	Mercury	1-25" wc
Exhaust Air Switch	N/A	N/A	N/A
Circulation Air Switch	N/A	N/A	N/A
Fuel Strainer	N/A	N/A	Not installed
Main Gas Regulator	Fisher	133H-5	6-97, 2" flanged
Pilot Regulator	Fisher	R522-5	1/2 threaded pipe



Metro Services Inc. - 4563 Pinnacle Lane - Chattanooga, TN 37415 - Phone (423)-870-5558 - Fax (423)-870-5560
www.metroservicesinc.com - msi@metroservicesinc.com

Pictures From Inspection:



More Services Inc. - 4163 Pineda Lane - Chattanooga, TN 37415 - Phone (423) 876-5555 - Fax (423) 879-5546
www.more-services.com - info@more-services.com

Notes:

1. *Have NFPA Inspections performed at least annually as required by the NFPA*
2. *No strainer installed. 2" threaded*
3. *No sediment trap installed. 2" threaded*
4. *Has 4 circulation fans with no air switches.*
5. *High limit and temp controller needs calibrated.*
6. *First and Second Main Gas Valves are sticking and having a hard time opening.
The valves are having to be hit with a board in order to make them open.*
7. *No Second Pilot Valve installed.*



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