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July 27, 2020

Executive Secretary  
North Dakota Public Service Commission  
600 East Boulevard, Dept. 408  
Bismarck, ND 58505-0480

RE: Compliance Filing  
Case No. GS-20-015

Montana-Dakota Utilities Co. (Montana-Dakota) electronically submits this filing in compliance with the North Dakota Public Service Commission's (Commission) Order dated March 18, 2020 (March 18 Order) and the subsequent extension to July 31, 2020 through the Commission's April 15, 2020 action.

During the July 23, 2019 field inspection, Commission Staff identified inadequacies in Montana-Dakota's procedural manual for operations, maintenance, and emergencies (Standards) related to the procedures being used by Company personnel in the field. The Manager of the Commission's Gas Pipeline Safety Program issued a Notice of Amendment (NOA) on January 10, 2020 stating the Standards did not contain adequate procedures (step-by-step instructions) with definitive language for personnel performing covered tasks.

The Commission's March 18 Order required Montana-Dakota to amend its procedure, specifically *OPS 500 – Regulator Station Inspection and Maintenance (OPS 500)*, by March 30, 2020. Due to the Company's mitigation efforts related to the COVID-19 pandemic, the Company requested an extension of the time required to implement the amended OPS 500 until July 31, 2020. The Company's request was approved by the Commission on April 15, 2020.

Montana-Dakota herewith notifies the Commission that it has now complied with the March 18 Order and OPS 500 has been implemented to provide written procedures for covered tasks that are procedural in nature and will more clearly identify the steps required to complete covered tasks by qualified individuals. A copy of OPS 500 is included as Attachment A.

Montana-Dakota respectfully requests the Commission accept this filing as being in full compliance with the Commission's Order.

Please contact Josh Sanders at 701-222-7773 with questions or comments.

Respectfully Submitted,



Pat Darras  
Vice President, Engineering & Operations Services  
Montana-Dakota Utilities Co.

Attachment

cc: Caleb Simburger – Pipeline Safety Program Manager

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Notification of compliance to 18 March 2020 Order with supporting documents  
Montana-Dakota Utilities Co.  
Pat Darras, VP, Engineering & Operations

# Attachment A

## PURPOSE

To provide procedures for the inspection and maintenance of regulating stations within the MDU Utilities Group (MDUG) pipeline system.

## REFERENCES

### External References:

49 CFR § 192.195 - Protection Against Accidental Over-Pressuring  
49 CFR § 192.199 - Requirements for Design of Pressure Relief and Limiting Devices  
49 CFR § 192.201 - Required Capacity of Pressure Relieving and Limiting Devices  
49 CFR § 192.605 (b)(5) - Procedural Manual for Operations, Maintenance, and Emergencies  
49 CFR § 192.619 - Maximum Allowable Operating Pressure - Steel or Plastic Pipelines  
49 CFR § 192.621 - Maximum Allowable Operating Pressure - High Pressure Distribution Systems  
49 CFR § 192.739 - Pressure Limiting and Regulating Stations - Inspection and Testing  
49 CFR § 192.741 - Pressure Limiting and Regulating Stations - Telemetry or Recording  
49 CFR § 192.743 - Pressure Limiting and Regulating Stations - Testing of Relief Devices  
PHMSA Interpretations (PI) 92-034 (192.195) and 14-0016 (192.621)

### Internal References:

OPS 501 – Equipment Calibration, Maintenance and Testing  
OPS 703 – Valve Inspection and Maintenance

Forms: N/A

## TRAINING AND QUALIFICATION

Technical Training is responsible for the development of training required for MDUG personnel who perform regulator station inspection and maintenance.

## RECORD RETENTION

Record	Retention Period	Storage Location
Relief Capacity Check Report	Five years	Electronic copy in district SharePoint folder.
Regulator Station Maintenance Form	Five years	Compliance tracking software application. (Maximo)
As-Builts and/or modifications	Life of pipe	Documentum or similar
Pre-June 22, 2020 Legacy Maintenance Records	Five years	Pipeline Inspection Manager Export on SharePoint and Paper Forms in Local District Offices or Meter Shops.

## DEFINITIONS

**Town Border Station (TBS)** A location at which gas may change ownership from one party to another (e.g., from a transmission company to a local distribution company), neither of which is the ultimate consumer. Legacy documents and certain facility names may include industry terms such as city gate, gate station, or tap, e.g., McCleary Gate Line Heater or Nampa Gate.

Refer to OPS 3 - Master Glossary

## SCOPE

Applies to the inspection and maintenance of pressure regulating and relief devices within the MDUG pipeline system feeding three or more service lines (i.e. GIS Gas Service Point).

## PROCEDURE

### 1. GENERAL

- 1.1. Periodic inspections and tests shall be performed on regulation stations and relief devices, including standalone relief devices that are essential and/or non-essential for overpressure protection.
  - 1.2. Inspection and maintenance shall be documented in the compliance tracking software applications (e.g. Maximo).
    - 1.2.1. Operations Services shall periodically review completed Work Orders for accuracy, completeness, and consistency.
  - 1.3. Descriptions of unacceptable conditions shall be entered in the work order comments.
  - 1.4. Gauges used for inspection and maintenance of regulator stations and relief valves and bypassing regulator stations shall be calibrated per the requirements of [OPS 501](#) - Equipment Calibration, Maintenance and Testing.
  - 1.5. Regulator Stations are assigned an eight (8) digit unique identification (ID) number. The unique ID is auto generated by the compliance tracking software application (e.g. Maximo). The unique ID will be preceded with the Company and Town Code.
    - 1.5.1. Company\_Town Code\_Unique 8-digit ID
    - 1.5.2. Example: 48425-RS-00012345
  - 1.6. Pressure limiting stations and relief devices and the associated equipment shall be inspected at least once each calendar year, with intervals not exceeding 15 months.
    - 1.6.1. Engineering Services and System Integrity shall inform Measurement when inspection and testing frequencies require increased intervals.
    - 1.6.2. Examples of criteria that may require increased inspection and testing frequencies due to buildup in regulator or meter components include but are not limited to dithiazine, sulfur and liquid or condensates.
    - 1.6.3. Inspection and testing performed outside the frequencies of 1.6 shall be documented on an AdHoc Work Order.
  - 1.7. The set points for regulators and reliefs shall be determined by Engineering Services in compliance with 192.201... *Required Capacity of Pressure Relieving and Limiting Devices*.
  - 1.8. The inspections and tests specified in this procedure shall determine that the devices are:
    - 1.8.1. In good mechanical condition and overall appearance;
    - 1.8.2. Set to control or relieve at the correct pressure, consistent with the pressure limits set by Engineering Services;
    - 1.8.3. Properly installed and protected from insects, dirt, liquids, or other conditions that might prevent proper operation.
2. GENERAL INSPECTION AND MAINTENANCE
- 2.1. Prior to performing regulator maintenance, notify Gas Control if the regulator station is monitored by SCADA.
  - 2.2. The following steps shall be taken prior to regulator inspections and/or maintenance to ensure safe operating conditions:
    - 2.2.1. Verify in GIS what the station outlet is feeding/serving and if the station is fed from other regulator stations (i.e. loop fed, back fed, etc.).
    - 2.2.2. Utilize approved gas monitoring equipment while performing regulator station inspections and/or maintenance.
    - 2.2.3. Utilize two employees while performing maintenance on regulators/reliefs 6" and larger, unless otherwise approved by management. An example of an exception is an onsite lifting device/hoist for the removal of heavy regulator and relief components. Additional employees may be needed when bypassing a station.
  - 2.3. Inspect for leaks
    - 2.3.1. If qualified, repair the leak.
    - 2.3.2. If not qualified or additional personnel is required, refer to qualified personnel to grade the leak and schedule repair. Refer to company outside leak investigation procedures.
    - 2.3.3. Non-hazardous above ground leaks that can be repaired by tightening component(s) without disassembly and non-hazardous leaks on valves that can be repaired with

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- grease (e.g. injecting lubricant or sealant) do not need to be reported. Other leak types require an order to be generated for tracking and permanent record.
- 2.4. Inspect site conditions.
  - 2.5. Inspect pit or vault condition.
  - 2.6. Inspect soil-to-air interface.
  - 2.7. Inspect for atmospheric corrosion.
  - 2.8. Inspect pipe supports.
    - 2.8.1. If pipe has epoxy coating or other System Integrity approved product at the interface with the support, the support does not need to be lowered to inspect for corrosion at the interface.
  - 2.9. Inspect paint condition.
  - 2.10. Inspect station signage.
  - 2.11. Inspect pipeline markers.
    - 2.11.1. Inspection includes the condition of existing pipeline marker or the need to add a pipeline marker(s) at a road crossing or for better visibility of the regulator station.
  - 2.12. Inspect condition of relief stack.
  - 2.13. Check the position and operation of the relief cap indicator flag, weather cap, or flapper.
    - 2.13.1. Remove weather caps to ensure they are not adhered to the relief stack.
    - 2.13.2. Lubricate or replace inoperable flappers.
    - 2.13.3. Replace missing weather caps.
    - 2.13.4. Replace missing or damaged vent splash guards.
  - 2.14. Inspect and maintain valves that are part of the regulator station per the inspection and maintenance criteria of [OPS 703](#) – Valve Inspection and Maintenance.
    - 2.14.1. Inlet and outlet valves assigned a Maximo ID are included in a separate valve maintenance program and documented on a Valve Annual Maintenance Work Order in the compliance tracking software application. Refer to [OPS 703](#) – Valve Inspection and Maintenance.
  - 2.15. Calibrate or check the accuracy of non-transmitting (e.g. no modem) pressure recording device installed at regulator stations supplied by more than one pressure reducing station.
    - 2.15.1. Pressure recording devices equipped with transmitting devices (e.g. modems) are included in a separate calibration/maintenance program.
    - 2.15.2. Instruments that are damaged or fail to calibrate will be taken out of service.
  - 2.16. Calibrate or check the accuracy of permanently installed gauges.
    - 2.16.1. Instruments that are damaged or fail to calibrate will be taken out of service.
  - 2.17. Check pilot heaters for proper operation.
    - 2.17.1. Inoperable pilot heaters shall be repaired or replaced.
  - 2.18. Check inlet pressure with a test gauge rated higher than the MAOP.
  - 2.19. Install a test gauge on the outlet side of the regulator station and monitor the outlet pressure throughout the regulator and relief valve inspection and maintenance process. Test gauges shall be rated for pressure that is higher than the MAOP.
3. REGULATOR INSPECTION AND MAINTENANCE
- 3.1. Regulators shall be set to lockup at the designated set pressure, unless setting during flow conditions allows the regulator to lock up at a pressure equal to or less than the MAOP. For example, a regulator may be set during flow conditions provided the set pressure plus the known droop (i.e. the difference between lockup and delivery pressure) does not exceed MAOP.
  - 3.2. Note: Manufacturers droop capacities are typically for long lengths of pipeline, not the short spans (i.e. distance between the regulator and outlet valve) used for lockup testing.
    - 3.2.1. When a regulator run is not equipped with the pressure ports required for lockup testing, the set pressure shall be no greater than MAOP less the manufacturer's droop capacity.
  - 3.3. Regulator stations that are not equipped with pressure ports to test lock up shall be inspected per the requirements of [Section 1.8](#).

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- 3.3.1. Contact Engineering Services to ensure the regulator station is included on the Lock Up Testing Retrofitting/Replacement Program.
- 3.4. Confirm regulator vents are vented down.
- 3.5. Switching primary (i.e. operating) and secondary (i.e. standby) regulators is allowed but not required.
  - 3.5.1. When delivery pressure cannot be reduced, the secondary run shall be raised to the delivery pressure and can make the primary regulator after maintenance is complete.
  - 3.5.2. When primary and secondary regulators are switched, the delivery pressure labels shall be updated.
  - 3.5.3. When the primary and secondary regulator are a different manufacturer or model, do not switch the runs.
  - 3.5.4. The instructions listed in Sections 3.5 and 3.6 also apply when the primary and secondary regulators are not switched.
- 3.6. Switching Current Secondary Regulator to the Primary Regulator:
  - 3.6.1. Begin by installing the test tree on the secondary run.
  - 3.6.2. Open bleed valve on tree to protect the gauge if regulator fails to lockup. Slowly close the downstream outlet valve on the secondary regulator run and watch the monitoring gauge on the bypass line to verify that there is no reduction in system pressure. Close the bleed valve on the test tree so the gauge can indicate the lockup of the regulator.
  - 3.6.3. Note: If the primary regulator does not provide proper pressure or is a single run regulator station, the station may need to be bypassed during the regulator maintenance. Refer to [Section 6](#) for bypass procedures.
  - 3.6.4. Turn the adjustment screw on the regulator and bring the secondary pressure up to the preferred operating pressure for the primary regulator, as set by Engineering Services. The lockup pressure shall be set at or below the designated maximum set point for the station. Never set a regulator to lockup above MAOP.
  - 3.6.5. If the regulator fails to lockup, disassemble the regulator and pilot (if applicable), clean, and/or repair and retest for lockup.
  - 3.6.6. Fully open the bleed valve on the test tree and verify that the regulator will flow and then close the bleed valve to verify that the regulator locks up at the proper set pressure.
  - 3.6.7. If regulator run has a monitor regulator, repeat steps 3.6.2 through 3.6.6 for monitor regulator. Set monitor to pressure as specified by Engineering Services. If regulator run is a "working monitor", verify the first stage pilot controls the monitor regulator at the pressure designated by Engineering Services. Ensure second stage pilot locks up the monitor regulator at pressure specified by Engineering Services. Ensure primary worker regulator is aligned and controlling pressure for the regulating run prior to moving to next step.
  - 3.6.8. Slowly open the downstream regulator outlet valve, making the secondary regulator the new primary regulator.
- 3.7. Switching Current Primary Regulator to Secondary Regulator:
  - 3.7.1. Install the Test Tree on the opposite regulator run. This regulator will now be set as the secondary regulator.
  - 3.7.2. Open the Test Tree bleed valve to protect the gauge if the regulator does not lockup. Close the downstream block valve and watch the monitoring gauge on the bypass line to verify that there is no drop-in system pressure. Close the bleed valve on the Test Tree so the gauge can indicate the lockup of the regulator.
  - 3.7.3. Open the bleed valve slightly on the Test Tree to relieve pressure between the regulator and the downstream valve and turn the adjustment screw on the regulator to bring the pressure to the secondary pressure setting.
  - 3.7.4. Close the needle valve on the Test Tree and adjust the regulator to the proper lockup pressure for the secondary regulator. If the regulator fails to lockup, disassemble the regulator and pilot (if applicable), clean and/or repair and test for lockup.

- 3.7.5. Fully open the bleed valve on the Test Tree to verify that the regulator will flow and then close the bleed valve to verify that the regulator locks up at the proper set pressure.
- 3.7.6. If regulator run has a monitor regulator, repeat steps 3.7.2 through 3.7.5 for monitor regulator. Set monitor to lock up pressure as specified by Engineering Services. If regulator run is a "working monitor," verify first stage pilot controls monitor regulator at pressure designated by Engineering Services, then ensure second stage pilot locks up monitor regulator at pressure specified by Engineering Services. Ensure primary working regulator is aligned and controlling pressure for the regulating run prior to moving to the next step.
- 3.7.7. Slowly open the downstream block valve and put the secondary regulator into service.

#### 4. RELIEF VALVE INSPECTION AND MAINTENANCE

- 4.1. When shutting in relief valves during inspection, testing or maintenance, the outlet system pressure shall be monitored to ensure the pressure does not exceed MAOP. If the gauge monitoring the outlet/delivery pressure cannot be seen while the relief valve is shut in, install a gauge on the inlet side of the relief block valve or ask for additional personnel to assist with pressure monitoring.
- 4.2. Install a test tree with a test gauge on a pressure tap between the relief valve and the relief isolation valve.
- 4.3. Slowly close the relief isolation valve to the relief assembly. Constantly monitor the outlet/delivery pressure for any pressure change.
- 4.4. Install a high-pressure gas hose rated to the MAOP of the inlet pressure on the test tree to test the relief.
  - 4.4.1. The hose may be supplied with upstream gas or compressed gas cylinder (i.e. nitrogen or compressed natural gas).
  - 4.4.2. Relief valves shall not be tested by increasing the system pressure through the regulator station.
- 4.5. Open the test fitting valve and allow high-pressure gas to open the relief valve. Verify that the that the main seat of the relief valve opens.
- 4.6. Close the test fitting valve.
- 4.7. Slowly open the valve from the high-pressure hose while watching the test gauge on the test tree.
- 4.8. As the pressure slowly increases on the test gauge, the set point for the relief valve is the highest pressure reached until it stops.
  - 4.8.1. Note: You should hear the relief valve crack open and begin to start venting. At this point, you could see a pressure drop on the test gauge once the highest pressure is achieved and the relief valve has opened.
- 4.9. When the set point is found higher than the set point designated by Engineering Services, adjust the relief valve to the correct set point as designated by Engineering Services.
- 4.10. Turn off the high-pressure supply and watch the gauge on the test tree to verify that the relief valve re-seats and does not fall below the upstream regulator's lockup pressure. This is typically referred to as a relief valve leak test or relief valve re-seat.
- 4.11. Open the bleed on the test tree to relieve pressure from tree and high-pressure hose.
- 4.12. Place the relief valve back in service by closing the bleed on the test tree and slowly opening the relief isolation valve to the fully open position supplying gas to the relief valve.
  - 4.12.1. With the relief valve in operation, verify the outlet/delivery pressure at the test tree matches the outlet/delivery pressure at the monitoring point described in 2.19.
- 4.13. Remove the test tree and high-pressure hose and record the station inlet pressure.

#### 5. POST INSPECTION AND MAINTENANCE

- 5.1. Check that valves are left in correct position.
- 5.2. Check that relief valves are locked open.
- 5.3. Check that by-pass valves are locked closed.

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- 5.4. Check that fence gate is locked.
- 5.5. Install labels (replace old labels if necessary) that identify the regulator pressure setpoints on the primary and secondary runs and the set pressure on the relief, using stickers or tags (e.g. Impresso tags, brass tags, etc.).
- 5.6. Required corrective maintenance (i.e. deficiencies) not repaired at the time of inspection shall be completed no later than the following time frames:
  - 5.6.1. Inoperable regulators and relief valves shall not be left in service and shall be repaired or replaced as soon as possible. **Regulator stations shall not be left in service without over pressure protection.** The following timeframes are for the rare instances when a regulator stations must remain out of service due to the unavailability of replacement parts. Contact your manager and Engineering Services when a regulator station must be left out of service.

General Inspection and Maintenance Deficiencies	Days
Grade 1 Leak Repaired - No	Promptly with Continuous Action
Grade 2 Leak Repaired - No	See Leak Procedure
Site Condition Unacceptable	180
Pit or Vault Condition Unacceptable	45
Soil-to-Air Interface Condition Unacceptable	180
Atmospheric Corrosion Found	180
Pipe Support Unacceptable	180
Paint Condition Unacceptable	365
Sign Condition Unacceptable	45
Pipeline Markers Unacceptable - Washington	45
Pipeline Markers Unacceptable	90
Relief Vent or Stack Condition Unacceptable	45
Weather Cap/Flapper Not Operable	45
Valve Condition Unacceptable	180
Pressure Recording Device Unacceptable	Take out of service or replace
Permanently Mounted Pressure Gauge Unacceptable	Take out of service or replace
Pilot Heater Inoperable	45

Regulator and Relief Deficiencies	Days
Regulator Vent Not Vented Downward	45
Regulator 1 Lockup Performed Properly – No	45
Regulator 1 Operated Properly – No	45
Regulator 2 Lockup Performed Properly – No	45
Regulator 2 Operated Properly – No	45
Regulator 3 Lockup Performed Properly – No	45
Regulator 3 Operated Properly – No	45
Regulator 4 Lockup Performed Properly – No	45
Regulator 4 operated Properly – No	45
Relief Operated Properly – No	45
Relief Isolation Valve Locked Open – No	45
Relief 2 Operated Properly – No	45

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Relief 2 Isolation Valve Locked Open – No	45
Valves Left in Proper Position – No	45
Regulator 1 Rebuilt - Yes	(If YES to all, reset 10-year clock)
Regulator 2 Rebuilt – Yes	
Relief Valve Rebuilt - Yes	

Post Inspection and Maintenance Deficiencies	Days
Valves Left in Proper Position – No	1
Relief Isolation Valves Locked Open – No	45
Bypass Valves Locked Closed - No	45
Fence Gate Locked - No	1

**6. BYPASSING REGULATOR STATION**

- 6.1. Prior to bypassing a regulator station, notify Gas Control if the regulator station is monitored by SCADA.
- 6.2. Unless performed during normal maintenance, bypassing regulator stations shall be done at the direction of Field Operations Management and/or Engineering Services.
- 6.3. Contact Engineering Services if assistance is needed with planned bypasses involving pressure differentials. Bypasses involving the same pressure do not require Engineering review.
- 6.4. Bypassing shall be performed with a second employee designated to monitor downstream/delivery pressure unless the downstream/delivery pressure can be continually visually monitored while the system is on bypass.
- 6.5. Prior to bypassing, conduct a job safety assessment or tailgate to review the work plan.
- 6.6. When bypassing a regulator station, the following procedure shall be followed:
  - 6.6.1. Verify relief isolation valve is open and operational.
  - 6.6.2. Monitor the downstream pressure. The gauge shall be installed at a test point where it can be clearly observed.
  - 6.6.3. When bypassing due to significantly low system pressure, verify that the end of the system has adequate pressure to maintain service prior to increasing the existing outlet pressure. Contact Engineering Services if assistance is needed identifying a significantly low pressure.
    - 6.6.3.1. When SCADA or other monitored pressure device is not available, the pressure shall verify with a pressure gauge at the end of the system.
    - 6.6.3.2. Customers in outlying areas of the distribution system may have lost service. Their service condition will need to be verified and shut off, if necessary, along with Engineering Services approval before the distribution pressure could be increased to a normal operating pressure.
  - 6.6.4. When bypassing into a high-pressure system use a gauge that is capable of reading from zero to the highest pressure possible in the system. The gauge shall be installed on a test point where it can be clearly observed while operating the bypass valve.
  - 6.6.5. When bypass runs are equipped with two ball valves (a bypass valve and a control valve), use the sacrificial bypass valve for bypassing. The upstream valve is typically designated as the bypass valve and the downstream valve is designated as the control valve. Always open the control valve prior to bypassing.
  - 6.6.6. Open bypass valve with an adequately sized unidirectional wrench. If the valve does not turn easily refer to [QPS 703](#) – Valve Inspection and Maintenance.
  - 6.6.7. Open the valve gradually to let pressure seep by the valve. During the bypass process the pressure on the gauge shall be monitored continuously. Observe the pressure and control it by throttling. The valve shall not be left unattended during the bypass operation. The system pressure shall not be allowed to go over system's designed delivery pressure.

- 6.6.8. When bypassing is no longer necessary, close the bypass valve and reinstall the locking device.
  - 6.6.9. The system pressure shall be observed to make sure the regulator station is working correctly and is able to keep up with the current system demand. Monitoring for less than 30 minutes requires Engineering Services or System Integrity authorization.
  - 6.6.10. Remove pressure gauge and confirm the bypass valve is closed and locked off.
7. BLOWING OR RELIEVING (SEEPING) RELIEF VALVE
- 7.1. First responders that are not operator qualified to perform regulator and relief valve inspection and maintenance shall notify their supervisor on call as soon as reasonably possible. Supervisor shall follow local protocol for contacting a Meter Inspector.
  - 7.2. Unqualified personnel shall perform the following steps:
    - 7.2.1. Establish a safety perimeter.
    - 7.2.2. Install gauges on the upstream and downstream of the regulator station.
    - 7.2.3. Relay the upstream and downstream pressures to the supervisor on call or Measurement.
    - 7.2.4. Continue to monitor pressure until qualified personnel arrive.
    - 7.2.5. Remain on site to assist until relieved by a qualified individual.
  - 7.3. Qualified personnel shall perform the following steps:
    - 7.3.1. Install a pressure gauge rated for the inlet MAOP on the downstream side of the bypass valve and read the pressure.
    - 7.3.2. Note the pressures on the regulator labels, the label on the relief valve.
    - 7.3.3. A downstream pressure that is higher than the station's set pressure indicates that the bypass valve (if present) has been turned to the open position or one of the regulators has failed.
    - 7.3.4. If the bypass valve has been opened, close it immediately. This should allow the pressure to return to normal and the relief valve to stop blowing.
    - 7.3.5. To determine if the problem is caused by a failed regulator complete the following:
      - 7.3.5.1. Slowly close the inlet valve on the primary regulator and watch the gauge installed on the downstream side of the bypass valve.
      - 7.3.5.2. If the pressure drops down to normal and the relief valve closes, you have found the problem. With the inlet valve on the regulator run in the off position, watch the gauge and make certain the bypass valve does not need to be opened to maintain pressure on the system.
      - 7.3.5.3. After closing the inlet valve to the primary regulator, if the pressure on the gauge remains high and the relief valve still blows, turn the inlet valve back on and follow the same procedure on the secondary regulator. If either regulator does not lockup, it requires immediate repair.
    - 7.3.6. If the gauge pressure is less than the system set pressure, slowly close the relief isolation valve and watch the system gauge. If the pressure on the gauge rises to the relief set point pressure, open the relief isolation valve. This would indicate a failed regulator or open bypass valve.
    - 7.3.7. If the pressure on the gauge stabilizes to a proper setting after turning off the relief isolation valve, the relief valve shall be repaired.
    - 7.3.8. Do not leave an inlet or outlet regulator run valve or relief isolation valve in the closed position.
    - 7.3.9. Inlet and outlet regulator run valves and relief isolation valves shall not be operated unless the outlet/delivery pressure is being monitored.
    - 7.3.10. Remain at the station and monitor pressures until repairs are made and pressures are normal.
    - 7.3.11. If the problem cannot be resolved after following the above steps, contact a manager or supervisor to request additional assistance.
    - 7.3.12. Verify that valves on the station are in their proper position and that the locking devices are installed and secured on both the bypass valve and the relief isolation valve.

**8. REBUILDS**

- 8.1. Rebuilds are performed when devices (i.e. regulators, relief valves, and pilots) are inspected both externally and internally. A rebuild may be performed as emergency work when a device malfunctions, or as preventative maintenance.
- 8.2. Preventative maintenance requires that devices at a station be rebuilt. Preventative rebuilds are scheduled every 10 years. Such rebuilds can be performed at the same time as the annual inspection maintenance.
  - 8.2.1. Follow applicable procedures for inspections in Section 3 and 4 of this procedure when taking the station out of service to rebuild the regulators, and/or when returning the station back to service.
  - 8.2.2. Disassemble each regulator and relief valve. Perform a leak test with soap on newly installed regulators, pilots and tubing connections.
  - 8.2.3. Replace worn metal parts and rubber parts including diaphragms, seats, O-rings, tubes, etc.
  - 8.2.4. Visually inspect regulators and associated parts for damage and wear.
  - 8.2.5. If the full preventative rebuild is performed before the 10-year due date, the clock restarts for the next 10-year period.

**9. PIPELINE COMPANY (FOREIGN OWNED) CONTROLLED REGULATOR STATIONS**

- 9.1. The following interstate pipeline companies may provide pressure control and over-pressure protection for MDUG facilities at town border stations:
  - 9.1.1. Northwest Pipeline (NWP), a subsidiary of the Williams Companies
  - 9.1.2. Gas Transmission Northwest (GTN), a subsidiary of TransCanada Corporation.
  - 9.1.3. NorthWestern Corporation, d/b/a NorthWestern Energy (NWE).
  - 9.1.4. WBI Energy, an MDU Resources Group company.
- 9.2. The pipeline companies are responsible for inspecting these town border stations at least once each calendar year with intervals not exceeding 15 months.
  - 9.2.1. It is the responsibility of Engineering Services to obtain the inspection documentation from the pipeline within the required interval. These inspection records shall be stored in the districts SharePoint folder.
  - 9.2.2. It is the responsibility of Engineering Services to ensure the regulator and relief set-points are within acceptable ranges.

