Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Carlsbad Field Office
OCD Artesia

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2

5. Lease Serial No.
NMNM115413

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
NMNM136117

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
ADMIRAL FEDERAL COM 2H

2. Name of Operator
COG OPERATING LLC
Contact: AMANDA AVERY
E-Mail: aavery@concho.com

9. API Well No.
30-015-42820-00-S1

3a. Address
600 W ILLINOIS AVENUE
MIDLAND, TX 79701

3b. Phone No. (include area code)
Ph: 575.748.6940

10. Field and Pool or Exploratory Area
PURPLE SAGE-WOLFCAMP (GAS)

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 28 T25S R29E SWSE 190FSL 1980FEL
32.093948 N Lat, 103.986586 W Lon

11. County or Parish, State
EDDY COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Onshore Order Variance
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

GC 6-6-18
Accepted for record - NMOCD

COG Operating LLC requests permission to install a Vapor Combustor Unit (VCU) at the Admiral Federal Com #2H tank battery. This request is due to the fact that the cost of installing and operating equipment necessary to capture the gas exceeds the value of the gas over the life of the facility. COG Operating LLC understands that the following conditions apply:
1. COG Operating LLC may be required to provide economic justification and provide volume verification to the Authorized Officer upon request.
2. COG Operating LLC will comply with 43 CFR 3179 requirements.
3. If volume being combusted is less than 50 MCF of gas per day, it is considered unavoidably lost, therefore, no royalty obligation shall be accrued and will not be required to be reported.
a. Unavoidably Lost production shall mean (1) those gas vapors which are released (in this case combusted) from low-pressure storage tanks.
4. Essentially all measured combusted volumes over 50 MCF will require payment of royalties and

RECEIVED
JUN 06 2018
DISTRICT II-ARTESIA O.C.D.

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #420044 verified by the BLM Well Information System
For COG OPERATING LLC, sent to the Carlsbad
Committed to AFMSS for processing by PRISCILLA PEREZ on 05/15/2018 (18PP1715SE)

Name *(Printed/Typed)* AMANDA AVERY — Title AUTHORIZED REPRESENTATIVE

Signature (Electronic Submission) — Date 05/14/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By DUNCAN WHITLOCK — Title TECHNICAL LEAD PET — Date 06/01/2018

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office Carlsbad

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

Additional data for EC transaction #420044 that would not fit on the form

32. Additional remarks, continued

volumes need to be reported on OGOR B reports as disposition code 08.
5. Per 43 CFR 3162.7-5(d)/Onshore Order No.3.III.I.1, site facility diagram must be submitted within 60 days of equipment installation.
6. This approval does not authorize any additional surface disturbance.
7. Subject to like approval from NMOCD.

Attached are the following:
Site Security Diagram of the current tank battery, as well as the location of the VCU and the manifold line connecting the tanks to the VCU.
Contact name and number to retrieve information on volumes being combusted.
Specification sheet(s) for the VCU.

Mike Powell - Construction Foreman

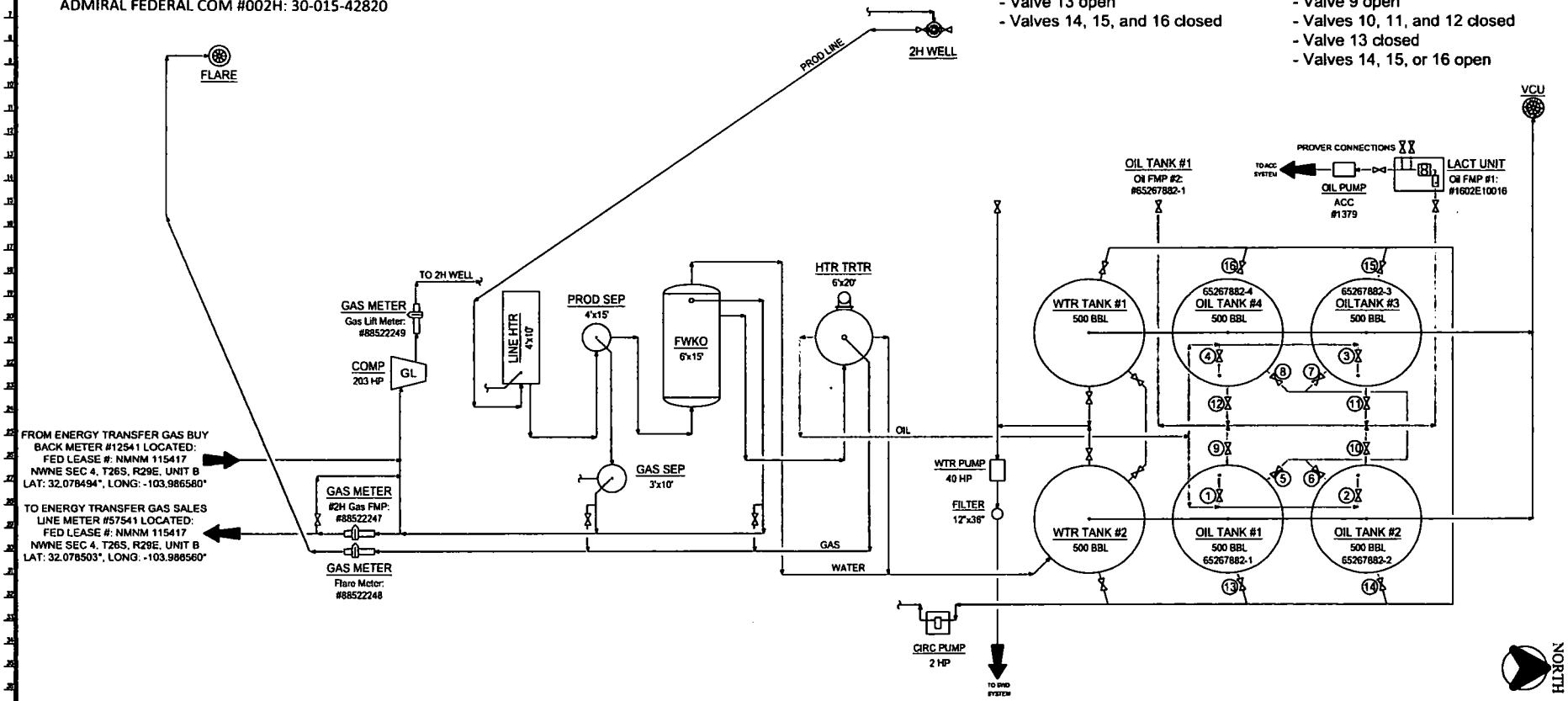
432-254-7619

ADMIRAL FEDERAL COM 2H BATTERY
SWSE SECTION 28, T25S, R29E, UNIT O
EDDY COUNTY, NM

WELLS:
ADMIRAL FEDERAL COM #002H: 30-015-42820

Production Phase - Oil Tank #1
- Valve 1 open
- Valves 2, 3, and 4 closed
- Valves 5, 6, 7, and 8 open
- Valves 9, 10, 11, and 12 closed
- Valve 13 open
- Valves 14, 15, and 16 closed

Sales Phase - Oil Tank #1
- Valve 1 closed
- Valves 2, 3, or 4 open
- Valve 5 closed
- Valves 6, 7, and 8 open
- Valve 9 open
- Valves 10, 11, and 12 closed
- Valve 13 closed
- Valves 14, 15, or 16 open



NOTES:
Type of Lease: Federal
Federal Lease SHL #: NMNM 115414
CA/Agreement #: NMNM 136117
Property Code: 313927
OGRID #: 229137

Ledger for Site Diagram
Produced Fluid: ——
Produced Oil: ——
Produced Gas: ——
Produced Water: ——

CONFIDENTIALITY NOTICE
THIS DRAWING IS PROPERTY OF COG OPERATING LLC AND IS LOVT TO THE BORROWER FOR CONFIDENTIAL USE ONLY AND IS SUBJECT TO RETURN UPON REQUEST AND SHALL NOT BE REPRODUCED, COPIED, LENT OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY, NOR USED FOR ANY PURPOSE OTHER THAN THAT WHICH IT IS SPECIFICALLY FURNISHED.

REFERENCE DRAWINGS
NO. | TITLE

COG OPERATING LLC — ONE CONCHO CENTER
SITE SECURITY PLANS — 600 WEST ILLINOIS AVENUE
LOCATED AT: — MIDLAND, TEXAS 79701

REVISIONS

NO.	DATE	DESCRIPTION	BY	CHK.	APP.
A	08/01/13	ISSUE FOR SITE PERMITTING	CRB		
B	08/11/18	UPDATED FOR ADMIRAL FED COM 2H BTY	CMB		
C	01/13/19	UPDATED W/ FMP #3 & TANK #3	CMB		

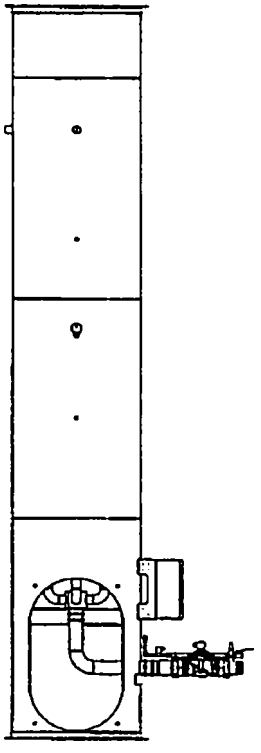
ENGINEERING RECORD

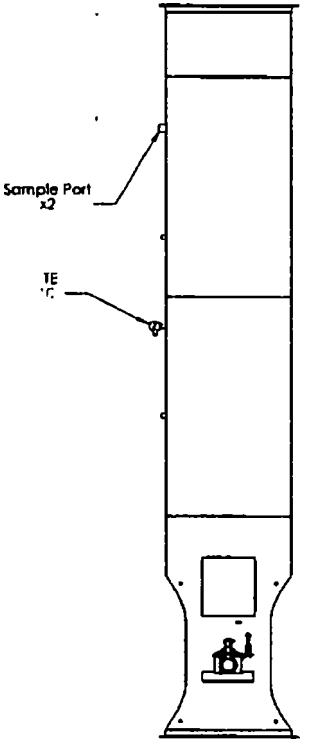
	BY	DATE
DRN:	CRB	08/01/13
DES:	CRB	08/01/13
CHK:		
APP:		
AFE NO:		
FACL DIGR:	C. BLEDSOE	
OPER DIGR:	VARIES	
SCALE:	NONE	

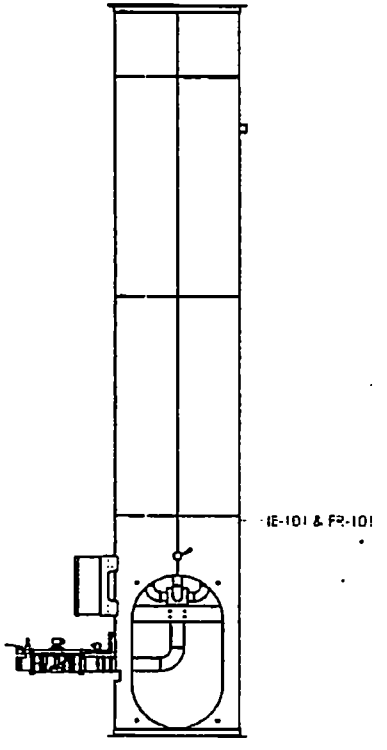
CONCHO
NORTHERN DELAWARE BASIN ASSET
PRODUCTION FACILITIES
SITE FACILITY DIAGRAM
ADMIRAL FEDERAL COM 2H BATTERY
EDDY COUNTY NEW MEXICO
TWNSHP/RANGE: MULTIPLE
DWG NO.: D-1700-81-005
REV: C

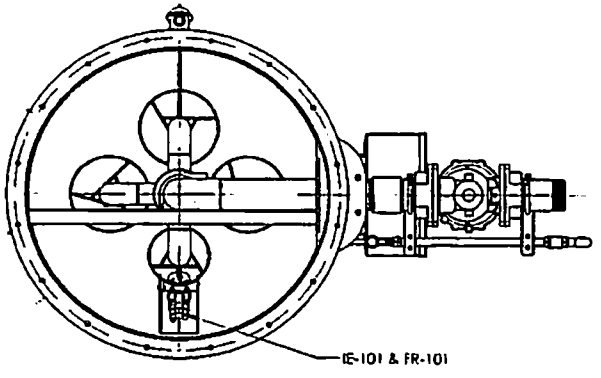
General Arrangement Drawing

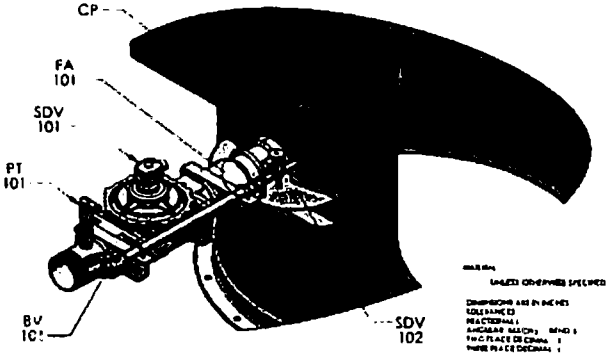
NOTE This drawing is intended for your review and approval of the general arrangement for an *ABUTEC 100*. Some dimensions are subject to change during the final engineering phase of this project. "As Built" drawings will be provided at engineering completion.











UNLESS OTHERWISE SPECIFIED

DIMENSIONS ARE IN INCHES
TOLERANCES
FRACTIONAL ±
ANGULAR MACH ± BEND ±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±

DRAWN J PHILLIPS

CHECKED

ENG APPR HvP

PROPRIETARY AND CONFIDENTIAL

ABUTEC™ Advanced Burner Technologies

TITLE
ABUTEC100 (SCUF)

SIZE C DWG NO ABUTEC-100GAD REV

SCALE 1:24 WEIGHT 964.96 SHEET 1 OF 1

ABUTEC® Advanced Burner Technologies

Sequence of Operation

ABUTEC 100 Combustion Flare

1. The system is put in "Auto" mode by switching from "OFF" to "ON" on the control panel.

2. Once in "Auto" there is a 15-45 second delay while the PLC boots up, the pilot solenoid valve SDV-102 will open, at the same time the ignition transformer TX-101 will be energized, and the ignition electrode IE-101 will start sparking for a period of 10 seconds.

3. The pilot gas will be ignited, and proof of pilot lit will be detected by the flame rod (FR-101). Once the PLC has received confirmation that the pilot is lit the ignition transformer is disabled and energy is no longer supplied to the ignition electrode. The pilot will remain lit continuously while the power switch is in the "ON" position. If pilot flame is lost or undetected the PLC will make an infinite number of attempts to relight.

4. Once a "Start-up" pressure of 7" H2O is detected by the pressure transmitter (PT-101) on the main gas line for a period of 10 seconds, the process controller will initiate the start sequence.
    - The solenoid valve (SDV-101) will open and release gas to the main burner.
    - The main burner is lit.
    - The stack temperature is monitored by the thermocouple (TE-101).

Shutdown Parameters:

- High Stack Temperature –Temp greater than 2200°F > 10 seconds
- Low Pressure – Pressure less than 2" H2O > 5 seconds
- Loss of pilot flame

NOTE: Any shutdown will cause valve SDV-101 to close.
    - The system will wait for 10 seconds upon any shutdown for purging process and reinitiate the start sequence.

ABUTEC MTF Inspection and Maintenance Procedures

Thermocouple

- The thermocouple head should be opened for a visual inspection of all wire connections. A simple pull test can be performed to ensure secure connections of the wires on the thermocouple terminal block.
- The thermocouple should be removed from the enclosed flare stack for a visual inspection of its component probe. The probe should be checked for signs of excessive heating and material fatigue. Visual indicators include:
  - cracks or gaps in the continuous probe material
  - exposure of thermocouple's fully enclosed bi-metal wire
  - droop of the probe tip at an angle greater than 60° from horizontal
- Discoloration of the thermocouple probe is a normal occurrence and does not necessarily indicate excessive heating or material fatigue.
  If excessive wear is detected, the thermocouple must be replaced.
- Once a thermocouple has been replaced, its wired connections should be checked to ensure of proper signal transmissions and temperature detection.

Ignition Electrode/ Flame Detector / Boot / Cable

Caution: Electric shocks can be fatal! Before working on live components, confirm that power to the flare has been disconnected and all stored energy has dissipated.

- The ignition electrode, flame detector, and boot are one complete assembly. Each component can be removed, inspected and if found to be faulty, replaced.
- Once removed from ignition assembly, the electrode should be inspected for cracks in the ceramic insulation which would be a potential location for spark to escape.
- The metallic portion (electrode tip and rod of the flame detector) should be inspected for excessive corrosion or overheating.
  Visual indication of compromise includes:
  - **Ignition Electrode**
    - scaly build up on electrode tip
    - excessive loss of material at electrode tip
    - fragile state of the metallic tip , this can also be a sign of excessive corrosion
  - **Flame Detector**
    - scaly build up on flame rod
    - excessive loss of material
    - fragile state of the metallic rod, this can also be a sign of excessive corrosion

- The electrode tip and flame rod can be scrubbed clean with an abrasive material. This process can expose virgin metal and possibly restore the component's original performance.
  If cracks in the ceramic portion or excessive corrosion on the metallic portion are detected, the compromised component must be replaced.

- The ignition boot should be checked for a solid and reliable connection with the plug of the ignition electrode. There should be a snap when a connection is made between the boot and electrode. If a loose connection is established, this can result in a failure to generate spark at the electrode tip.
- The ignition boot should also have a firm connection with the ignition cable. A simple pull test can be performed to test the strength of the connection between the cable and the plug. If the connection between the plug and the cable is loose, steps to tighten the connection should be taken. Each boot is matched to its mating component and will not fit any other component.
  If a strong and stable connection cannot be accomplished between the boot and either the ignition electrode or the ignition cable, the ignition boot must be replaced.
- The ignition cable should be inspected for any evidence of overheating or excessive dryness. Both conditions increase the risk of ignition wire exposure, which in turn creates the risk of arcing outside of the flare enclosure. Visual indicators of overheating, dryness and arcing:
  - brittle silicone cover material
  - cracking in silicone cover
  - Burn spots on silicone cover

  If any exposure or potential exposure to ignition wire through the outer material covering is noticed, the ignition cable must be replaced.

Flame Arrestor

- Before removal of the flame arrestor, proper isolation or the gas train and enclosed flare system shall be made and confirmed to prevent gas release during maintenance works.
- Once the flame arrestor is removed, the element must be inspected for particulate buildup and other obstructions to gas flow. Obstructions could also be in the form of fused metal due to heating of the flame element. As a general practice, the element should be cleaned with a solvent solution or compressed air to free the part of obstructions.
  If at least 50% of the open area is obstructed and unable to be reopened during maintenance, the flame arrestor must be replaced.
- The body of the flame arrestor should be inspected for corrosion or compromise to the housing that could result in a gas leak.
- The flame arrestor should be inspected for wear on the threads that could create a point for gas leakage.
  If flame arrestor has warpage or crossed threads, the flame arrestor must be replaced.

Mixing Tube / Burner Nozzle

- The mixing tube and nozzle will be accessed within the enclosure of the flare system. The mixing tube will be first removed and inspected for overheating.
  Visual indication of compromise includes:
  - splitting/separation of the mixing tube cylinder
  - warpage of mixing tube cylinder
  - scaling on mixing tube cylinder
- Discoloration of the mixing tube is a normal occurrence and is not necessarily an indicator of overheating.
- Accumulation of debris and other particulates is a natural occurrence during operation of the flare. If this is observed, the mixing tube can be cleaned and returned back to the original state using a wire brush.
- The burner nozzle should be inspected for any obstructions to the orifices that would restrict gas flow. If any are found, the nozzle can be cleaned using a wire brush, or compressed air.
  If there is any evidence of deterioration of the burner nozzle material, the nozzle or damage to the nozzle threads, the nozzle must be replaced.

Solenoid Valve (Pilot and Process Gas)

- Before removal of the solenoid valve, proper isolation of the gas train and enclosed flare system shall be made and confirmed, this will prevent the release of during system repairs or maintenance.
- Once the solenoid valve is removed, visually inspect the valve seat for tears, burns, and debris. Also, inspect and test the electric solenoid and valves for standard functionality and performance.
- Inspection for wear spots within the valve body should also be completed to avoid the risk of gas escape through the valve body.
- The electronic solenoid unit should be inspected for wear on the threads/flange face that could create a point for gas leak. The connection point between the valve shaft and the solenoid should be inspected for excessive wear and possible signs of rounding.
  If there is warpage or crossed threads or compromise to the solenoid valve that restricts normal function, the solenoid and valve component must be replaced.
- Wiring to the valve operator should be inspected to ensure a secure electrical connection for proper operation. A simple pull test can be performed to check connection.

Pneumatic Valve

Standard component on AB200 and optional component on AB20 and AB100 flares

- Before removal of the valve assembly, proper isolation of the factory pressurized air, gas train and enclosed flare system shall be made and confirmed, this will prevent the release of gases while the flare is being repaired or maintenance is being performed.
- Once the valve assembly is removed, visually inspect the valve seat for tears, burns, and debris. Also, inspect and test the actuator sub-assembly, which includes a pneumatic actuator and a small electronic solenoid, for standard functionality and performance.
- Inspection for wear spots within the valve body should also be completed to avoid the risk of gas escaping through the valve body.
- The actuator unit should be inspected for wear on the threads/flange face that could create a point for an air leak. The connection point between the valve shaft and the actuator should be inspected for excessive wear and possible signs of rounding.
  If there is warpage or crossed threads or compromise to the solenoid valve that restricts normal function, the solenoid and valve component must be replaced.
- Wiring to the valve operator should be inspected to ensure a secure electrical connection for proper operation. A simple pull test can be performed to check connection.
- To ensure peak actuator performance, inspect the compressed air connection and verify a secure and leak free connection.

Pressure Switch / Transmitter

- This component usually only requires an occasional calibration. Frequency of calibrations dependent of the component's environment and the composition of the gas being measured.
- The pressure transmitter should be removed from the pipe coupling to ensure no debris accumulation in the sensor opening.
  If any debris is found, it should be removed using a pin or thin, wire like tool.
- Inspect component for possible damage to the housing and measuring element. After a confirmation of proper function or deemed mechanical sound, reinstall and recalibrate.
- Always use a wrench on the guage socket when installing the pressure guage. Never use force on the guage housing to tighten into position. This could result in a loss of accuracy, excessive friction and mechanical damage to the measuring element and the instrument's housing.
- Electrical connections should be checked for evidence of oxidation and corrosion. A simple pull test should be performed on the connection wires to confirm a secure connection at the terminals.

Enclosed Flare Shell

- The flare enclosure is constructed from SS304 material, and is resistant to wear.
- Welds and seams of the enclosure should be inspected annually to ensure no cracks have formed or propagated due to thermal cycling. A standard dye penetrant test can be performed to determine the presence of weld defects.
  If weld defects are detected, the welds should be repaired. This repair is recommended before the system resumes normal service.
- The shell structure should also be inspected for the presence of hot spots that may have resulted in a breach in the shell material. This event is highly unlikely, but could result in the case of operating the system continuously at overly high temperatures (>2000°F) or instances of liquid carry over.
  If penetration of shell material has occurred, patch repair of the enclosure is recommended.
- Visually inspection of the flare shell should be standard practice. Hot spots on the flare shell can eventually damage the structure and cause accelerated metal fatigue and warpage.

Control Panel

- In Process