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**Description**            The purpose of this procedure is to safely conduct scheduled and unscheduled maintenance of compressors and other equipment through the use of appropriate isolation procedures. These procedures minimize the chances of a release of hydrocarbons in the compressor building and an unexpected release of energy while personnel are working on equipment.

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**Regulatory Applicability**            Maintenance activities on regulated compressors that requires that the equipment or line segment be taken out of service to perform the work safely.

- Regulated Transmission Pipelines
- Regulated Gathering Pipelines (Type A)
- Regulated Gathering Pipelines (Type B)
- Regulated Distribution Pipelines

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**Frequency**                            As needed

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**Reference**                            49 CFR 192.605(b)(6) *Procedural Manual for Operations, Maintenance and Emergencies*  
LA Title 43 Part XIII 2705(b)(6)            *Procedural Manual for Operations, Maintenance and Emergencies*

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**Forms / Record Retention**            None

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**Related Specifications**                    None

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**OQ Covered Task**                    0441                            *Compressor Start Up and Shutdown - Manual*

(In order to perform the tasks listed above; personnel must be qualified in accordance with West Texas Gas's Operator Qualification program or directly supervised by a qualified individual.)



**Procedure Steps**

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*Isolation of the Unit*

1. Read and follow Lockout/Tag-out procedure.
2. Follow shut down procedure (See Procedure P-192.605(b)(7)).
3. Lockout/Tag-out suction and discharge valves.
4. Lockout and tag-out procedures shall be used on the following operations:
  - a) When opening systems, which normally contain process gas.
  - b) Any maintenance projects.
  - c) Any time internal maintenance is required.
  - d) When conducting electrical work.
5. Seal any open lines and accessory inlets to prevent entry of foreign material while servicing the unit.
6. Release all internal pressure in the unit piping and/or compressor before beginning any hot work or disassembling any part.
7. Lock and tag out pressure supply to engine starter
8. Attempt to start unit, testing for any stored energy.
9. Electrical Isolation of Skid, if required.
  - a. Turn off disconnects and install locks and tags per lockout/tag-out procedures.
  - b. Isolate utility powers by installing a breaker lock device and tag the lock per lockout/tag-out procedures.
10. For extended downtime periods due to major maintenance or for hot work, equipment and piping should be isolated from all pressure sources by installing blind flanges or flange plates, when possible.
11. If hot work is to be done, purge the equipment and/or piping until free of hydrocarbons as indicated by a gas test instrument.

*Purging of the Unit (in the event the unit has been isolated and de-pressured)*

1. Ensure all work has been completed and compressor components are installed as designed
2. Remove Locks and tags
3. Ensure blowdown valve is in the open position and bypass valve is in the closed position
4. Slowly open the suction valve until gas is flowing into the unit



5. Verify there is no gas leaking from compressor components or piping flanges
6. Purge until all air is removed or 100% gas level is attained
7. Open bypass valve to sweep bypass piping
8. Close blowdown valve
9. Open discharge valve
10. Open suction valve
11. Reconfirm there is no gas leaking from unit (compressor components and piping)

*Isolation Procedure for a Compressor Station*

1. To isolate station, follow the shutdown procedure.
2. Lock and Tag Out Suction Valve.
3. Lock and Tag Out Discharge valve
4. Lock and Tag Out Fuel supply
5. To assure station is isolated check gauges for pressure.

**Purge of a Compressor Station**

Due to the complexity of each Compressor station, a specific purging procedure is include with each station's ESD manual.