

**DOMINION GAS TRANSMISSION
AND
DOMINION HOPE**

UNION SELECTION TESTING

REVISED 08/01/2009

Table of Contents

GENERAL TESTING INFORMATION	4
PHYSICAL JOBS TESTS	5
CLERICAL JOBS TESTS	7
UNION PHYSICAL JOBS.....	9
UNION CLERICAL JOBS	98

DOMINION GAS TRANSMISSION AND DOMINION HOPE

Union Selection Testing Program

This manual was developed to include the union physical and clerical jobs at Dominion Gas Transmission and Dominion Hope that are bid jobs. It includes the entry level of rate jobs, but does not include jobs that are currently in a progression.

NOTE: All updates of the Manual can be accessed at the Company's Intranet Website:

http://pipelineint.dominionnet.com/pipeline_integrity/union_selection_testing_manual/union_selection_testing_manual.pdf

GENERAL TESTING INFORMATION

Physical Jobs

Employees bidding on physical jobs requiring testing (see Physical section of this manual) may require one or more of the following tests:

- Computer Skills Test
- Job Specific Written Test
- Job Specific Hands-on Test

Any employee currently holding one of the jobs referred to above will not be required to test to keep their current position. Any employee bidding on one of the jobs referred to above who has **not** previously held that job will be required to pass all testing required for the job as indicated in the Physical section of this manual. Note that only the entry level of rate jobs have testing required as mentioned above. Progression jobs will continue to be filled according to the current contract.

Clerical Jobs

Employees bidding on clerical jobs requiring testing (see the Clerical section of this manual) may require one or more of the following tests:

- Clerical Aptitude Test
- Computer Skills Test
- Job Specific Written Test

Any employee currently holding one of the jobs referred to above will not be required to test to keep their current position. Any employee bidding on one of the jobs referred to in the Clerical section of this manual, who has **not** previously held that job will be required to pass all testing required for the job as indicated in the Clerical section of this manual. Note that progression jobs will continue to be filled according to the current contract.

[Back to Top](#)

PHYSICAL JOBS TESTS

Computer Skills Testing

The computer skills test requires the employee to demonstrate his/her ability to use the personal computer for inquiry by searching a database for specific information.

Passing for the computer skills test is at 70%. The tests will be scored off-site and the result (pass or fail) will be shared with the employee as soon as possible.

The result of each of these tests will remain acceptable unless and until the computer skill requirements of the particular job change to the extent that the test must be rewritten.

Job-specific Written Testing

The length of the job-specific written test can vary depending on the specific job being tested. Passing for each test is at 70%. The tests will be scored off-site and the result (pass or fail) will be shared with the employee as soon as possible.

If an employee has passed the job-specific written test for a particular job but is not awarded the job because of seniority, the result of the test will remain acceptable unless and until the requirements of the particular job change to the extent that the test must be rewritten. If a test changes, the previous test result for an employee who has not been awarded a position covered by that test, will no longer be acceptable.

Hands-on Testing

Hands-on testing will be given to the most senior employee who passes all required testing described above. If that employee fails the hands-on test, the next most senior employee who has passed all other required testing, will be given the hands-on test. The hands-on testing will be given until an employee in the bid pool passes the hands-on testing or until all employees who have passed all other required testing have been given one attempt to pass the hands-on testing - whichever occurs first.

The employee must pass each and every task on the test to pass the entire hands-on test.

Any hands-on task list containing more than 10 steps may be used in hand by an employee during the actual hands-on testing. Hands-on task list containing 10 or less steps may not be used in hand by an employee during the actual hands-on testing. Employees will be given time before the administration of each individual task to orient themselves to the equipment they are being tested on.

Employees involved in hands-on testing must bring their copy of the Union Selection Testing Manual and standard company personal protective equipment with them to the testing site. This includes a hard hat, eye protection, shoes with protective toes, and if applicable, hearing protection.

In addition, a representative of the union will be present during the hands-on testing if the Union provides one. Management has the right to have another management person present during the hands-on testing.

[Back to Top](#)

CLERICAL JOBS TESTS

Clerical Aptitude Testing

The clerical aptitude test will continue to be administered and scored as it has been in the past.

Computer Skills Testing

The computer skills may consist of a Windows/File Management test and/or Excel test depending on the particular job being bid.

Passing for the computer skills test is 70%. If both the Windows/File Management test and the Excel test must be taken, each test will be scored separately and the 2 test scores will be averaged together for a final percentage score to determine pass/fail. The tests will be scored off-site and the result (pass or fail) will be shared with the employee as soon as possible.

The result of the test will remain acceptable unless and until the software standard for the Company changes or the job changes to the extent that the test must be rewritten.

Written Tests

The length of the job-specific written test can vary depending on the specific job being tested. Passing for that test is at 70%. The tests will be scored off-site and the result (pass or fail) will be shared with the employee as soon as possible.

If an employee passes the job-specific written test for a particular job but is not awarded the job because of seniority, the result of the test will remain acceptable unless and until the requirements of the particular job change to the extent that the test must be rewritten. When the test changes, the previous test result will no longer be acceptable.

[Back to Top](#)

PHYSICAL JOBS TESTING REQUIRED

UNION PHYSICAL JOBS

TITLE	Computer Test	Written Test	Hands-On Test
Auto Mechanic		X	X
Auto Mechanic, Sr.		X	X
Bailing Machine Operator		X	X
Collector	X		
Compressor Station Operator, Sr.	X	X	X
Compressor St. Operator, 24 Hour		X	X
Engine Mechanic		X	X
Engine Mechanic, Sr.		X	X
Extract. Plant Equipment Repairperson		X	
Hastings Gas Processing Plant Operator	X	X	
Heavy Equipment Operator			X
Inspector		X	
Instrument Specialist		X	
Insulator, Extraction Plant		X	
Leader, General Office Garage		X	X
Leader, Repair Crew		X	X
Leak Inspector		X	
Loader, Extraction Plant	X	X	
Loader, Sr., Extraction Plant	X	X	
Maintenance Mechanic, Building		X	X
Maintenance Mechanic, Building, Sr.		X	X
Measuring Station Operator, Major	X	X	
Medium Equipment Operator			UPGRADE
Meter Reader	X	X	
Painter			X
Service Dispatcher	X		
Shift Leader	X	X	X
Utilityperson-Distribution-Start		X	
Utilityperson-Field-Start		X	
Waste Water Treatment Operator		X	
Well Tender		X	

NOTE: Other requirements to qualify for selection into these jobs may exist. See the specific job posting and/or inquire with the posting supervisor for additional requirements (i.e. lifting requirements, CDL license, etc.)

AUTO MECHANIC AUTO MECHANIC, SR.

Revised 07/21/99

Written Test:

- Read circular gauges
- Read round and vertical sight glasses
- Read tape measure
- Read tachometer
- Paperwork - fill-in with data supplied
- Reading a wiring schematic
- Personal Protective Equipment for Auto Mechanics
- Hazardous Material Handling
- How to secure a vehicle to work underneath it
- 2 and 4 cycle engine theory
- Read scale on measuring pole
- Refueling hot equipment
- Units of measure on a multimeter
- Fuel and paint mix ratios

Hands-on Test:

See the following pages

[Back to Top](#)

Task 1 - Identify mechanic's hand tools and equipment and their function

Personal Protective Equipment: Hard hat, safety glasses with side shields, and safety toe work shoes

I.D. Use/purpose

- _____ 1. tread gauge
- _____ 2. brake adjustment tool
- _____ 3. brake drum gauge
- _____ 4. torque wrench
- _____ 5. calipers
- _____ 6. test light
- _____ 7. multimeter
- _____ 8. wheel puller
- _____ 9. gear puller
- _____ 10.hydraulic porta power
- _____ 11.feeler gauge
- _____ 12.timing light
- _____ 13.bearing separator
- _____ 14.tap
- _____ 15.die
- _____ 16.battery load tester
- _____ 17.wrenches (by choosing next size up or down)

[Back to Top](#)

Task 2 - Identify automotive components and their function under the hood of a passenger vehicle

Personal Protective Equipment: Hard hat, safety glasses with side shields, and safety toe work shoes

I.D. Use/purpose

- _____ 1. fuel filter
- _____ 2. oil filter
- _____ 3. air filter
- _____ 4. alternator
- _____ 5. air conditioner compressor
- _____ 6. radiator
- _____ 7. oil filler
- _____ 8. automatic transmission fluid filler
- _____ 9. windshield washer fluid reservoir
- _____ 10.antilock brakes
- _____ 11.master cylinder
- _____ 12.water pump
- _____ 13.power steering pump
- _____ 14.coolant reservoir
- _____ 15.windshield wiper motors
- _____ 16.battery
- _____ 17.fan belt

[Back to Top](#)

Task 3 - Identify the type of fuel injection of a passenger vehicle

Personal Protective Equipment: Hard hat, safety glasses with side shields, and safety toe work shoes

Steps

- _____ 1. Raise the hood of the car.
- _____ 2. Inspect the fuel injection configuration.
- _____ 3. Determine if the fuel injection configuration is multiport or throttle body injection (TBI).

[Back to Top](#)

Task 4 - Identify automotive components and their function underneath a passenger vehicle

Personal Protective Equipment: Hard hat, safety glasses with side shields, and safety toe work shoes

I.D. Use/purpose

- _____ 1. ball joint
- _____ 2. brake caliper
- _____ 3. fuel filter
- _____ 4. transfer case
- _____ 5. drive shaft
- _____ 6. muffler
- _____ 7. catalytic converter
- _____ 8. brake cables
- _____ 9. shock absorbers
- _____ 10.universal joint
- _____ 11.brake drums
- _____ 12.brake rotors
- _____ 13.tie rod ends
- _____ 14.idler arm
- _____ 15.pitman
- _____ 16.CV joint boot

[Back to Top](#)

Task 5 - Inspect a tire from a passenger vehicle for tread wear

Personal Protective Equipment: Hard hat, safety glasses with side shields, and safety toe work shoes

Steps

_____ 1. Apply tread depth gauge to tire to determine if tire passes 2/32" criteria.

_____ 2. Reject or accept tire.

[Back to Top](#)

Task 6 - Mount and balance tire

Personal Protective Equipment: Hard hat, safety glasses with side shields, and safety toe work shoes

Steps

- _____ 1. Remove valve core and deflate tire.
- _____ 2. Break bead of tire.
- _____ 3. Remove tire from rim.
- _____ 4. Soap bead of new tire.
- _____ 5. Put new tire on rim.
- _____ 6. Apply air to tire to reseal bead.
- _____ 7. Install valve core into valve of tire.
- _____ 8. Inflate tire to manufacturer's specifications.
- _____ 9. Check valve core and valve for leaks.
- _____ 10. Put tire and rim on spin balance machine.
- _____ 11. Select settings on spin balance machine.
- _____ 12. Spin tire.
- _____ 13. Install required weights as indicated by machine.
- _____ 14. Spin tire again to assure balance is correct.
- _____ 15. Remove tire and rim from spin balance machine.

[Back to Top](#)

Task 7 - Test a battery with a load tester

Personal Protective Equipment: Hard hat, safety glasses with side shields, and safety toe work shoes

Steps

- _____ 1. Attach the leads of the tester to the battery.
- _____ 2. Operate the tester.
- _____ 3. Determine whether the battery is good or not.

[Back to Top](#)

Task 8 - Inspect and grease wheel bearings

Personal Protective Equipment: Hard hat, safety glasses with side shields, and safety toe work shoes

Steps

- _____ 1. Prepare vehicle for jacking and jack vehicle up.
- _____ 2. Install jack stands.
- _____ 3. Take dust cover off of wheel bearing.
- _____ 4. Take cotter pin out and any other locking device.
- _____ 5. Remove nut and washer.
- _____ 6. Remove outer bearing.
- _____ 7. Slide wheel and brake drum off.
- _____ 8. Remove grease seal on inner bearing.
- _____ 9. Remove inner bearing.
- _____ 10. Clean inner bearing, inspect inner bearing and race.
- _____ 11. Pack inner bearing with grease.
- _____ 12. Reinstall inner bearing.
- _____ 13. Reinstall grease seal on inner bearing.
- _____ 14. Reinstall brake drum and wheel.
- _____ 15. Perform steps 9-12 on outer bearing.
- _____ 16. Reinstall outer bearing.
- _____ 17. Install washer and nut.
- _____ 18. Install any other locking devices and cotter pin.

_____ 19. Install wheel bearing dust cover.

_____ 20. Install wheel (if removed)

_____ 21. Remove jack stands.

_____ 22. Lower vehicle on jack.

[Back to Top](#)

Task 9 - Change spark plugs

Personal Protective Equipment: Hard hat, safety glasses with side shields, and safety toe work shoes

Steps

- _____ 1. Remove spark plug wire.
- _____ 2. Remove spark plug.
- _____ 3. Inspect old plug.
- _____ 4. Set gap on old plug or new plug to manufacturer's spec's.
- _____ 5. Install spark plug.
- _____ 6. Reinstall spark plug wire.

[Back to Top](#)

Task 10 - Change air filter

Personal Protective Equipment: Hard hat, safety glasses with side shields, and safety toe work shoes

Steps

- _____ 1. Raise hood on vehicle.
- _____ 2. Remove filter housing cover.
- _____ 3. Remove old filter.
- _____ 4. Install new filter.
- _____ 5. Replace filter housing cover.
- _____ 6. Lower hood of car.

[Back to Top](#)

Task 11 - Change oil and oil filter

Personal Protective Equipment: Hard hat, safety glasses with side shields, and safety toe work shoes

Steps

- _____ 1. Prepare vehicle for jacking and jack vehicle up.
- _____ 2. Install jack stands under vehicle.
- _____ 3. Remove drain plug and drain oil in an approved container.
- _____ 4. Locate and remove oil filter.
- _____ 5. Select new filter.
- _____ 6. Make sure old filter gasket is removed from vehicle.
- _____ 7. Lubricate gasket of new filter.
- _____ 8. Install filter.
- _____ 9. Insert drain plug.
- _____ 10. Fill engine with oil.
- _____ 11. Check for oil leaks on plug and filter.
- _____ 12. Remove jack stands.
- _____ 13. Lower vehicle from jack.

[Back to Top](#)

Task 12 - Change fuel filter

Personal Protective Equipment: Hard hat, safety glasses with side shields, and safety toe work shoes

Steps

- _____ 1. Prepare vehicle for jacking and jack vehicle up.
- _____ 2. Place jack stands under vehicle.
- _____ 3. Locate fuel filter.
- _____ 4. Remove fuel filter.
- _____ 5. Install new fuel filter.
- _____ 6. Check installation for leaks.
- _____ 7. Remove jack stands from under vehicle.
- _____ 8. Lower vehicle from jack.

[Back to Top](#)

Task 13 - Adjust drum brakes on a passenger vehicle

Personal Protective Equipment: Hard hat, safety glasses with side shields, and safety toe work shoes

Steps

- _____ 1. Prepare vehicle for jacking and jack vehicle up.
- _____ 2. Install jack stands under vehicle.
- _____ 3. Remove dust cover on brake drum.
- _____ 4. Insert brake adjusting tool into drum slot.
- _____ 5. Rotate tire and adjust brakes with adjusting tool.
- _____ 6. Adjust brake until shoes begin to contact drum.
- _____ 7. Remove brake adjusting tool from drum slot.
- _____ 8. Install dust cover on brake drum.
- _____ 9. Remove jack stands from under vehicle.
- _____ 10. Lower vehicle from jack.

[Back to Top](#)

Task 14 - Replace brake shoes

Personal Protective Equipment: Hard hat, safety glasses with side shields, and safety toe work shoes

Steps

- _____ 1. Release emergency brake on vehicle.
- _____ 2. Prepare vehicle for jacking and jack vehicle up.
- _____ 3. Place jack stands under vehicle.
- _____ 4. Remove tire.
- _____ 5. Remove brake drum.
- _____ 6. Wash off brake dust from brakes
- _____ 7. Remove springs and other hardware along with shoes.
- _____ 8. Install new shoes with springs and other hardware.
- _____ 9. Reinstall brake drum.
- _____ 10. Reinstall tire.
- _____ 11. Adjust brakes.
- _____ 12. Remove jack stands from under vehicle.
- _____ 13. Lower vehicle from jack.

[Back to Top](#)

Task 15 - Test various equipment for continuity with a multimeter

Personal Protective Equipment: Hard hat, safety glasses with side shields, and safety toe work shoes

List

- _____ 1. Light bulb
- _____ 2. 4 wheel drive actuator
- _____ 3. wires on a trailer
- _____ 4. switch

[Back to Top](#)

Task 16 - Test voltage on an alternator

Personal Protective Equipment: Hard hat, safety glasses with side shields, and safety toe work shoes

List

_____ 1. measure voltage output of alternator with multimeter.

[Back to Top](#)

Task 17 - Use calipers to measure inside and outside diameters

Personal Protective Equipment: Hard hat, safety glasses with side shields, and safety toe work shoes

List (Outside Diameter)

- _____ 1. Head of a bolt.
- _____ 2. Outside of a washer.

List (Inside Diameter)

- _____ 1. Inside of washer.
- _____ 2. Gap on an adjustable wrench.

[Back to Top](#)

BAILING MACHINE OPERATOR

Revised 03/26/99

Written Test:

- Properties of natural gas, safe handling
- Steps to blow down a well
- Read gauges
- Read circular charts
- Valve positions (open vs. closed) all types
- Purpose of perforation on wells
- Difference between swabbing and bailing
- Read a gauge pole
- Safety concern with raising the mast
- EPA regulations on fluid disposal

Hands-on Test:

See the following pages

[Back to Top](#)

Production Well Location Bailing Machine Operator

Revised 05/14/99

Personal Protective Equipment: Hard hat, ear plugs or muffs, safety glasses with side shields or safety goggles, work gloves and safety toe work shoes.

Set Up: Bailing machine will be parked on well location. Employee will be furnished a Helper and the well record. He will be instructed to measure in 20' below bottom of pay formation and to make two swab runs..

Assumption: Employee will have a valid CDL license. Test Administrator will be familiar with all safety procedures of operating a bailing machine. Bailing machine helper will be available.

Steps

Rig up Bailing Machine and make two swab runs.

- _____ 1. Check oil, antifreeze and fuel levels on Bailing Unit.
- _____ 2. Swing out controls and start Unit
- _____ 3. Blow down pipeline and related facilities from Well Side Line Valve to Measuring Station leaving separator open to tank or close side line gate.
- _____ 4. Gauge Tank.
- _____ 5. Raise mast to vertical position. Release swab bailer from mast.
- _____ 6. Secure mast with chain to bed of Bailing Machine.
- _____ 7. With Helper backing truck, rough center swab bailer over well casing.
- _____ 8. Drop and secure Leveling Jacks.
- _____ 9. Level bed of Bailing Machine.
- _____ 10. Extend top mast.
- _____ 11. Center swab bailer over well casing by adjusting mast with mast adjustment screw (pin).
- _____ 12. Screw set nut on jack piston to shoulder of Leveling Jacks.
- _____ 13. Remove top flange on Well Control Valve and blow down well.
- _____ 14. Remove top Well Control Valve at flange on Well Casing Head.
- _____ 15. Place swab bailer into well casing and secure it at top with a steel rod.
- _____ 16. Remove swab rubbers.
- _____ 17. Bolt Lubricator/oil saver on top flange of Casing Head.
- _____ 18. Anchor guy wires with metal stakes or deadmen.
- _____ 19. Install measuring devise on top of Lubricator.
- _____ 20. Release brake on bailing spool and control swab bailer, free fall to 20' below pay formation.
- _____ 21. Mark bailing line with either chalk or twine.
- _____ 22. Pull swab bailer to top of hole, remove Lubricator and secure swab bailer to top of casing with steel rod.
- _____ 23. Install swab cups. Re-install Lubricator.
- _____ 24. Make two swab runs.

Rig Down

_____ 1. Reverse steps 18 through 5.

[Back to Top](#)

COLLECTOR

Revised 03/26/99

Computer Skills Test:

- using a mouse
- navigating from screen to screen
- locating specific information in the database

[Back to Top](#)

**CSO, Sr.
CSO, 24 hr.
SHIFT LEADER**

Revised 03/26/99

Computer Skills Test: (CSO, Sr. and Shift Leader only):

- using a mouse
- navigating from screen to screen
- locating specific information in the database

Written Test:

PPE, Lockout/Tagout, Confined Entry
Purpose of major station components/buildings
Mock form to fill out with calculations
Reading meters (indexes)
Reading circular charts
Identifying chart ink with function
Reading a sight glass
Reading a vertical scale
Reading dial gauges
Read a pegging map
Identifying gas valve position (open vs. closed)
Know what ESD stands for and purpose of it
Combustible Gas Indicator
Lower Explosive Limit (L.E.L.)
Exterior part of a natural gas engine and compressor

Hands-on Test:

See the following pages

[Back to Top](#)

**Compressor Station Operator, Sr.
Compressor Station Operator, 24 hr.
Shift Leader**

Revised 6/9/09

Task 1 Simulate draining fluids from an Air Compressor System Volume Tank

Steps:

- _____ 1. Describe the proper PPE for this task.
- _____ 2. Describe an approved container for collecting fluids.
- _____ 3. Locate drain valve on Air Compressor System Volume Tank.
- _____ 4. Simulate slowly opening drain valve until all fluids have been blown from the tank.
- _____ 5. Simulate closing drain valve.
- _____ 6. Simulate disposing of collected fluids properly.

[Back to Top](#)

**Compressor Station Operator, Sr.
Compressor Station Operator, 24 hr.
Shift Leader**

Revised 6/9/09

Task 2 Simulate locally operating automatically-operated and manually-operated valves

Steps:

_____ 1. Describe the proper PPE for this task.

Pneumatic-powered hydraulic operated valve

_____ 1. Simulate operating "locally" using the pneumatic-powered hydraulic operated actuator.

_____ 2. Simulate operating "manually" without using the pneumatic-powered hydraulic actuator .

Electrically-powered operated valve

_____ 1. Simulate operating "locally" using the electrically-powered actuator.

_____ 2. Simulate operating "manually" without using the electrically-powered actuator .

Ball valve

_____ 1. Simulate opening and closing valve.

Gate valve

_____ 1. Simulate opening and closing valve.

[Back to Top](#)

Task 3A Simulate the semi-automatic start of a Main Engine

Steps:

- _____ 1. Describe the proper PPE for this task.
- _____ 2. Place switch on Engine Panel in "manual".
- _____ 3. Push the start button on the Engine Panel to clear the shutdowns.
- _____ 4. Check to see if all shutdowns are cleared (roll to green).
- _____ 5. Check to see if Blow Down valve is closed.
- _____ 6. Open Discharge valve, then Suction valve.
- _____ 7. Turn on Prelube Pump to engine (1 minute).
- _____ 8. Turn switch to Engine/Prelube (3-5 minutes).
- _____ 9. Turn on Turbo Assist until turbo RPM reaches 1200-1500 RPMs.
- _____ 10. Turn switch from Turbo Assist to Starting air/turbo Assist until Engine reaches 35-40 RPMs.
- _____ 11. Push ignition button. Engine should start running.
- _____ 12. After Engine has started to run, turn off Prelube pumps.

[Back to Top](#)

**Compressor Station Operator, Sr.
Compressor Station Operator, 24 hr.
Shift Leader**

Revised 6/9/09

Task 4 Identify and explain how to operate ESD stand

Steps:

- _____ 1. Describe the proper PPE for this task.
- _____ 2. Identify an ESD stand.
- _____ 3. Simulate how to operate the ESD stand in.

[Back to Top](#)

**Compressor Station Operator, Sr.
Compressor Station Operator, 24 hr.
Shift Leader**

Revised 6/9/09

Task 5 Check the oil level on the non-running air compressor

Steps:

- _____ 1. Describe the proper PPE for this task.
- _____ 2. Remove dipstick or filler plug.
- _____ 3. Check dip stick for proper oil level or verify that oil level is up to the bottom of the filler neck threads.
- _____ 4. Indicate where oil would be added.
- _____ 5. Replace dipstick or filler plug.

[Back to Top](#)

**Compressor Station Operator, Sr.
Compressor Station Operator, 24 hr.
Shift Leader**

Revised 6/9/09

Task 6 Replacing air filter on an air compressor

Steps:

- _____ 1. Describe the proper PPE for this task.
- _____ 2. Lock out air compressor.
- _____ 3. Remove air filter cover.
- _____ 4. Remove old air filter.
- _____ 5. Clean air filter holder.
- _____ 6. Install air filter.
- _____ 7. Reinstall air filter cover.
- _____ 8. Remove lockouts.

[Back to Top](#)

**Compressor Station Operator, Sr.
Compressor Station Operator, 24 hr.
Shift Leader**

Revised 6/9/09

Task 7 Change chart on a chart recorder

Steps:

- _____ 1. Describe the proper PPE for this task.
- _____ 2. Open chart recorder door.
- _____ 3. Lift pen from chart.
- _____ 4. Remove chart hub screw.
- _____ 5. Remove chart.
- _____ 6. Install proper chart by lining up pen with actual time.
- _____ 7. Replace chart hub screw.

[Back to Top](#)

Task 3B Simulate the semi-automatic start-up of a Main Turbine

Steps:

- _____ 1. Describe the proper PPE for this task.

- _____ 2. Move the Selector switch on the Turbine Panel to "LOCAL".

- _____ 3. Push the "START" button on the Control Room Panel.

- _____ 4. When the unit comes up to idle, wait for 2 minutes, then speed the engine up as needed.

[Back to Top](#)

**Compressor Station Operator, Sr.
Compressor Station Operator, 24 hr.
Shift Leader**

Revised 6/9/09

Task 8 Identify the loading step and position of the Loading Pockets on the Compressors using Load Curves, Unloading Schedule, and drawing of Compressors with Unloading Equipment

Steps:

- _____ 1. Describe the proper PPE for this task.
- _____ 2. Select the appropriate loading step based on the required suction and discharge pressure.
- _____ 3. Determine the position of the Loading equipment on the Unit.
- _____ 4. Mark the position of each Loading device on the drawing for the identified loading step.

[Back to Top](#)

**Compressor Station Operator, Sr.
Compressor Station Operator, 24 hr.
Shift Leader**

Revised 6/9/09

Task 9 Change a spark plug on an Engine

Steps:

- _____ 1. Describe the proper PPE for this task.
- _____ 2. Describe the proper Lockout/tagout of an Engine.
- _____ 3. Remove the spark plug wire/lead and inspect.
- _____ 4. Inspect the spark plug hole for debris and remove debris if found.
- _____ 5. Remove the spark plug and gasket using the correct socket and ratchet.
- _____ 6. Select the correct replacement plug, referencing the OEM manual.
- _____ 7. Gap the replacement plug, referencing the OEM manual.
- _____ 8. Install the new plug and gasket.
- _____ 9. Torque new plug to 55 ft/lbs. with torque wrench.
- _____ 10. Reset torque wrench back to 0 ft/lbs.
- _____ 11. Reconnect spark plug wire/lead.
- _____ 12.. Describe removing lockout/tagout.
- _____ 13. Notify appropriate personnel to rebalance engine when started.

[Back to Top](#)

**Compressor Station Operator, Sr.
Compressor Station Operator, 24 hr.
Shift Leader**

Revised 6/9/09

Task 10 Replace a compressor valve on an Engine

Steps:

- _____ 1. Describe the proper PPE for this task.
- _____ 2. Describe the proper Lockout/tagout of an Engine.
- _____ 3. Describe blocking and bleeding compressor.
- _____ 4. Loosen lock nut on jack bolt, if applicable, and back out the jack bolt.
- _____ 5. Loosen valve cap bolts. Loosen valve cap to relieve any trapped pressure.
- _____ 6. Remove valve cap bolts, valve cap, and gasket.
- _____ 7. Remove chair if applicable.
- _____ 8. Remove valve and gasket.
- _____ 9. Replace gasket and valve.
- _____ 10. Replace chair if applicable.
- _____ 11. Replace valve cap and nuts. Torque to OEM specs.
- _____ 12. Reset jack bolt, torque to 100 ft/lbs, and lock in place, if applicable.
- _____ 13. Reset torque wrench to 0 ft/lbs.
- _____ 14. Describe removing Lockout/tagout.

[Back to Top](#)

Task 11 Use a manually-operated high pressure grease gun

Steps:

- _____ 1. Describe the proper PPE for this task.
- _____ 2. Inspect grease gun to make sure it is in safe operating condition and loaded with grease.
- _____ 3. Connect grease gun to grease fitting.
- _____ 4. Pump grease gun handle to lubricate equipment.
- _____ 5. Monitor grease gun pressure gauge so as not to exceed MAOP of grease gun.
- _____ 6. Remove grease gun from grease fitting.
- _____ 7. Clean excess grease from grease fitting.

[Back to Top](#)

**Compressor Station Operator, Sr.
Compressor Station Operator, 24 hr.
Shift Leader**

Revised 6/9/09

Task 12 Replacing a fuel valve on an Engine

Steps:

- _____ 1. Describe the proper PPE for this task.
- _____ 2. Describe the proper lockout/tagout of an Engine.
- _____ 3. Explain removal of associated piping
- _____ 4. Remove valve from power head.
- _____ 5. Inspect valve seat.
- _____ 6. Inspect all parts of the valve spring, packing, and guide and replace as necessary
- _____ 7. Reinstall fuel valve.
- _____ 8. Explain reinstallation of associated piping
- _____ 9. Describe removing lockouts on Engine.
- _____ 10. Notify appropriate station personnel that engine needs rebalanced when restarted and notify appropriate station personnel to check replaced valve on startup.

[Back to Top](#)

**Compressor Station Operator, Sr.
Compressor Station Operator, 24 hr.
Shift Leader**

Revised 6/9/09

Task 13 Replacing an air starting valve on an Engine

Steps:

- _____ 1. Describe the proper PPE for this task.
- _____ 2. Describe the proper lockout/tagout for the Engine.
- _____ 3. Explain removal of associated piping.
- _____ 4. Remove nuts/bolts holding valve in head.
- _____ 5. Remove valve from power head.
- _____ 6. Remove valve gasket.
- _____ 7. Disassemble valve.
- _____ 8. Inspect all parts of the valve spring, packing, and guide and replace as necessary
- _____ 9. Reassemble valve.
- _____ 10. Clean gasket seating surface in head.
- _____ 11. Install new gasket.
- _____ 12. Reinstall air starting valve.
- _____ 13. Explain reinstallation of associated piping
- _____ 14. Describe removing lockout/tagout on Engine.

[Back to Top](#)

**ENGINE MECHANIC
ENGINE MECHANIC, Sr.
LEADER, REPAIR CREW**

Revised 03/26/99

Written Test:

- 2 & 4 cycle engine theory
- Lockout/Tagout
- Read gauges
- Confined entry procedures
- Hot work permit
- Crankcase entry permit
- Mock form with data supplied
- Valve positions (open vs. closed) all types
- Combustible Gas Indicator
- Lower Explosive Limit (L.E.L.)
- Personal Protective Equipment for Engine Mechanics
- Write thousandths and 1/2 thousandths from words to numbers
- Bearing Crush
- Web Deflection
- Ring Installation
- Rod Runout

Hands-on Test:

See following pages

[Back to Top](#)

Task 1 Change a spark plug on an Engine

Steps

- _____ 1. Describe the proper PPE for this task.
- _____ 2. Describe the proper Lockout/tagout of an Engine.
- _____ 3. Remove the spark plug wire/lead and inspect.
- _____ 4. Inspect spark plug hole for debris and remove.
- _____ 5. Remove the spark plug and gasket using the correct socket and ratchet.
- _____ 6. Select the correct replacement spark plug. Reference the OEM manual.
- _____ 7. Gap this spark plug. Reference the OEM manual.
- _____ 8. Install this spark plug and gasket.
- _____ 9. Torque this spark plug to 55 ft./lbs. with torque wrench.
- _____ 10. Reset torque wrench back to 0 ft./lbs.
- _____ 11. Reconnect spark plug wire/lead.
- _____ 12. Describe removing Lockout/tagout.
- _____ 13. Notify appropriate station personnel to rebalance engine when started.

[Back to Top](#)

Task 2 Change a compressor valve on an Engine

Steps

- _____ 1. Describe the proper PPE for this task.
- _____ 2. Describe the proper Lockout/tagout of an Engine.
- _____ 3. Describe blocking and bleeding compressor.
- _____ 4. Loosen lock nut on jack bolt if applicable, and back out the jack bolt.
- _____ 5. Loosen valve cap bolts. Loosen valve cap to relieve any trapped pressure.
- _____ 6. Remove valve cap nuts, valve cap, and gasket.
- _____ 7. Remove chair if applicable.
- _____ 8. Remove valve and gasket.
- _____ 9. Replace gasket and valve.
- _____ 10. Replace chair if applicable.
- _____ 11. Replace valve cap and nuts. Torque to OEM specs.
- _____ 12. Reset jack bolt, torque to 100 ft./lbs., and lock in place if applicable.
- _____ 13. Reset torque wrench to 0 ft./lbs.
- _____ 14. Describe removing Lockout/tagout.

[Back to Top](#)

Task 3 Explain removing a power cylinder head

Steps

- _____ 1. Describe the proper PPE for this task.
- _____ 2. Describe the proper Lockout/tagout of an Engine.
- _____ 3. Chock engine flywheel.
- _____ 4. Drain engine glycol and lockout.
- _____ 5. Remove coolant piping/jumpers from head.
- _____ 6. Remove air starting check valve piping from head.
- _____ 7. Remove fuel piping if applicable.
- _____ 8. Remove head bolts.
- _____ 9. Remove 1/2" pipe plug in the top of the head if applicable.
- _____ 10. Insert an eye bolt into the head if applicable.
- _____ 11. Install appropriate lifting device. Check tag on chain/sling for load limit.
- _____ 12. Slowly lift head from cylinder, taking care studs are not damaged as head comes up.

[Back to Top](#)

Task 4 Explain removing power piston

Steps

- _____ 1. Describe the proper PPE for this task.
- _____ 2. Describe the proper Lockout/tagout of an Engine.
- _____ 3. Review steps from Task 3.
- _____ 4. Unchock flywheel.
- _____ 5. Bar engine until connecting rod is accessible and chock flywheel.
- _____ 6. Attach lifting device to top of piston and take up slack in lifting device.
- _____ 7. Remove locking devices from rod bolts if applicable.
- _____ 8. Remove rod bolts.
- _____ 9. Separate connecting rod with appropriate bolts if applicable.
- _____ 10. Protect power cylinder from being damaged by connecting rod during lift.
- _____ 11. Lift piston up slowly, making sure connecting rod does not contact crankshaft and piston does not wedge in cylinder. Cylinder studs should be wrapped to avoid damage to piston as it comes out of cylinder.

[Back to Top](#)

Task 5 Replacing a fuel valve

Steps

- _____ 1. Describe the proper PPE for this task.
- _____ 2. Describe the proper Lockout/tagout of an Engine.
- _____ 3. Explain removal of associated piping.
- _____ 4. Remove valve from power head.
- _____ 5. Inspect valve seat.
- _____ 6. Inspect all parts of the valve spring, packing, and guide, and replace as necessary.
- _____ 7. Reinstall fuel valve.
- _____ 8. Explain reinstallation of associated piping.
- _____ 9. Describe removing Lockout/tagout.
- _____ 10. Notify appropriate station personnel that engine needs rebalanced when restarted, and notify appropriate station personnel to check replaced valve on startup.

[Back to Top](#)

Task 6 Replacing a starting air valve

Steps

- _____ 1. Describe the proper PPE for this task.
- _____ 2. Describe the proper Lockout/tagout of an engine.
- _____ 3. Explain removal of associated piping.
- _____ 4. Remove nuts/bolts holding valve in head.
- _____ 5. Remove valve from power head.
- _____ 6. Remove valve gasket.
- _____ 7. Disassemble valve.
- _____ 8. Inspect all parts of the valve spring, packing, and guide, and replace as necessary.
- _____ 9. Reassemble valve.
- _____ 10. Clean gasket seating surface in head.
- _____ 11. Install new gasket.
- _____ 12. Reinstall air starting valve.
- _____ 13. Explain reinstallation of associated piping.
- _____ 14. Describe removing Lockout/tagout on engine.

[Back to Top](#)

Task 7 Installing a set of rings on a piston

Steps

- _____ 1. Describe the proper PPE for this task.
- _____ 2. Measure end gap of each ring by placing each ring squarely in the cylinder at the lowest point of the ring travel.
- _____ 3. Make sure piston is clean.
- _____ 4. Place each ring on piston in correct ring groove using a ring expander to avoid distorting ring.
- _____ 5. Measure clearance between ring and piston groove.
- _____ 6. Verify all measurements to make sure they are within OEM specs.
- _____ 7. Record all measurements on appropriate forms.

[Back to Top](#)

Task 8 Repairing a compressor valve

Steps

- _____ 1. Describe the proper PPE for this task.
- _____ 2. Inspect seat gasket surface on the valve.
- _____ 3. Disassemble valve.
- _____ 4. Inspect valve plates.
- _____ 5. Inspect valve plate springs.
- _____ 6. Check valve plate surfaces. If pitted or worn, replace seat.
- _____ 7. Clean and inspect the valve guard.
- _____ 8. Reassemble valve with new springs and plates. Make sure to verify parts numbers so you are using correct parts.
- _____ 9. Verify valve plates work properly with a nonmarking tool.

[Back to Top](#)

Task 9 Replacing air filter on an air compressor

Steps

- _____ 1. Describe the proper PPE for this task.
- _____ 2. Describe the proper Lockout/tagout of an air compressor.
- _____ 3. Remove air filter cover.
- _____ 4. Remove old air filter.
- _____ 5. Clean air filter holder.
- _____ 6. Install proper air filter.
- _____ 7. Reinstall air filter cover.
- _____ 8. Describe removing Lockout/tagout.

[Back to Top](#)

Task 10 Repairing unloaders of an air compressor

Steps

- _____ 1. Describe the proper PPE for this task.
- _____ 2. Describe the proper Lockout/tagout of an air compressor.
- _____ 3. Loosen tubing to the unloader to allow any pressure that is trapped to escape.
- _____ 4. Remove tubing and mark to make reinstalling easier.
- _____ 5. Remove unloader.
- _____ 6. Dismantle, clean and replace O-rings, worn parts as needed.
- _____ 7. Reinstall unloader and then tubing.
- _____ 8. Describe removing Lockout/tagout.

[Back to Top](#)

Task 11 Checking the main bearing clearance using a dial indicator

Steps

- _____ 1. Describe the proper PPE for this task.
- _____ 2. Describe the proper Lockout/tagout of an engine.
- _____ 3. Bar engine until crankshaft throw is level horizontally.
- _____ 4. Chock flywheel.
- _____ 5. Use heavy steel beam to bridge across crankcase.
- _____ 6. Place hydraulic jack on beam under crankshaft throw.
- _____ 7. Check under crankshaft with .0015 feeler gauge to make sure crankshaft is setting down on bearing.
- _____ 8. Position dial indicator on crankshaft throw above jack.
- _____ 9. Check dial indicator with feeler gauge to make sure indicator has enough travel. Set indicator on zero.
- _____ 10. Raise crankshaft with jack.
- _____ 11. Read movement of indicator.
- _____ 12. Release jack pressure.
- _____ 13. Read movement of indicator (should return to zero).
- _____ 14. Repeat steps 10 - 13 to verify clearance.
- _____ 15. Compare clearance to OEM specs.
- _____ 16. Record measurement on appropriate form.

[Back to Top](#)

Task 12 Checking the master rod bearing clearance

Steps

- _____ 1. Describe the proper PPE for this task.
- _____ 2. Describe the proper Lockout/tagout of an engine.
- _____ 3. Bar engine until crankshaft throw is level horizontally.
- _____ 4. Chock flywheel.
- _____ 5. Use heavy steel beam to bridge across crankcase.
- _____ 6. Place hydraulic jack on beam under master rod cap.
- _____ 7. Position dial indicator on master rod above jack.
- _____ 8. Check dial indicator with feeler gauge to make sure indicator has enough travel. Set indicator on zero.
- _____ 9. Raise master rod with jack.
- _____ 10. Read movement of indicator.
- _____ 11. Release jack pressure.
- _____ 12. Read movement of indicator (should return to zero).
- _____ 13. Repeat steps 9 - 12 to verify clearance.
- _____ 14. Compare clearance to OEM specs.
- _____ 15. Record measurement on appropriate form.

[Back to Top](#)

Task 13 Performing rod run out

Steps

- _____ 1. Describe the proper PPE for this task.
- _____ 2. Describe the proper Lockout/tagout of an engine.
- _____ 3. Remove inspection door.
- _____ 4. Bar engine until piston is at head end of compressor.
- _____ 5. Chock flywheel.
- _____ 6. Place one dial indicator on vertical center line of compressor rod. Verify travel of indicator with feeler gauge. Set indicator to zero.
- _____ 7. Place one dial indicator on horizontal center line of compressor rod. Verify travel of indicator with feeler gauge. Set indicator to zero.
- _____ 8. Remove flywheel chock.
- _____ 9. Bar engine until piston is at crank end of compressor.
- _____ 10. Read movement of dial indicators. Compare clearance to OEM specs.
- _____ 11. Record measurement on appropriate form.
- _____ 12. Compare to previous readings to detect rider band wear or compressor misalignment.

[Back to Top](#)

Task 14 Performing web deflection

Steps

- _____ 1. Describe the proper PPE for this task.
- _____ 2. Describe the proper Lockout/tagout of an engine.
- _____ 3. Chock flywheel
- _____ 4. Place web deflection gauge between crankshaft throws. Tension on gauge should be set. Turn gauge one complete revolution.
- _____ 5. If connecting rods are on throw, set deflection gauge back as far as possible.
- _____ 6. Remove flywheel chock.
- _____ 7. Bar engine in direction of crankshaft rotation. Record readings at 3, 6, and 9 o'clock.
- _____ 8. Read movement of dial indicators. Compare clearance to OEM specs.
- _____ 9. Record reading on appropriate form.

[Back to Top](#)

EXTRACTION PLANT EQUIPMENT REPAIRPERSON

Revised 08/13/2004

Written Tests:

Basic Abilities:

- Ability to reason using words
- Ability to use three dimensional drawings
- Ability to perform basic math skills

[Back to Top](#)

HASTINGS GAS PROCESSING PLANT OPERATOR

Revised 08/13/2004

Computer Skills Test:

- using a mouse
- navigating from screen to screen
- locating specific information in the database

Written Tests:

Basic Abilities:

- Ability to trace wiring in a diagram
- Ability to reason using words, numbers, and symbols

[Back to Top](#)

HEAVY EQUIPMENT OPERATOR

Revised 03/26/99

Hands-on Test: (Test on dozer or backhoe - whichever the specific job requires)
See the following pages

[Back to Top](#)

Field Location Heavy Equipment Operator (Dozer)

Revised 7/21/99

Personal Protective Equipment: Hard hat, ear plugs or muffs, safety glasses with side shields or safety goggles, work gloves and safety toe work shoes.

Set Up: Dozer will be loaded, secured to a semi-trailer and the employee will operate the truck/tractor to haul the Dozer to the designated test site. Employee will be instructed to unload Dozer, move to the work location, construct a stockpile of soil, backfill area by spreading back the stockpile and dress area by backblading. He/she will use the wench to pull a dead load. He/she will then load and secure Dozer to semi-trailer.

Assumption: Employee will have a valid DOT/CDL license. Test Administrator will be familiar with all safety procedures of operating a Dozer.

Steps

Haul Dozer to test site.

Unload Dozer, construct a stockpile of soil, backfill area.

- _____ 1. Check oil, antifreeze, fuel and hydraulic fluid levels on Dozer.
- _____ 2. Remove chains and binders from Dozer.
- _____ 3. Start engine.
- _____ 4. Unload Dozer from semi-trailer.
- _____ 5. Tram to work location.
- _____ 6. Construct a stockpile of soil (20'x 20' and 6' high, top center).
- _____ 7. By using stockpile, backfill excavated area with Dozer blade.
- _____ 8. Dress area by backblading.

Winch a dead load.

- _____ 1. Lower Dozer blade.
- _____ 2. Winch out cable and hook to a joint of 20" pipe.
- _____ 3. Winch in the joint of 20" pipe for 20'.

Load Dozer on semi-trailer.

- _____ 1. Load Dozer on semi-trailer.
- _____ 2. Secure Dozer to semi-trailer with chains and binders.

[Back to Top](#)

Field Location
Heavy Equipment Operator (Backhoe)

Revised 2/24/97

Personal Protective Equipment: Hard hat, ear plugs or muffs, safety glasses with side shields or safety goggles, work gloves and safety toe work shoes.

Set Up: Track/RT Backhoe will be loaded, secured to a semi-trailer and the employee will operate the truck/tractor to haul the Backhoe to the designated test site. Employee will be instructed to unload Backhoe, move to the work location, dig a ditch and one bellhole. He/she will backfill excavated area with blade/bucket. He/she will then load and secure Backhoe to semi-trailer.

Assumption: Employee will have a valid DOT/CDL license. Test Administrator will be familiar with all safety procedures of operating a Backhoe.

Steps

Haul Backhoe to test site.

Unload Backhoe, dig ditch and bellhole.

- _____ 1. Check oil, antifreeze, fuel and hydraulic fluid levels on Backhoe.
- _____ 2. Remove chains and binders from Backhoe.
- _____ 3. Start engine.
- _____ 4. Unload Backhoe from semi-trailer.
- _____ 5. Tram to work location.
- _____ 6. Level the Backhoe by lowering the stabilizers and blade/bucket.
- _____ 7. Dig ditch (one bucket wide, four feet deep and thirty feet long)
- _____ 8. Dig bellhole at the end of ditch (six buckets wide, four feet deep and five feet long)

Backfill area and load Backhoe on semi-trailer.

- _____ 1. Raise stabilizers and re-position seat if necessary.
- _____ 2. Backfill area with blade/bucket.
- _____ 3. Load Backhoe on semi-trailer.
- _____ 4. Secure Backhoe to semi-trailer with chains and binders.

[Back to Top](#)

INSPECTOR

Revised 03/26/99

Written Test:

- Indications of leaking gas
 - Corrosion protection requirement when crossing foreign lines, insulating old pipe from new, etc.
 - OSHA regulations on trenching and shoring
 - hydrostatic testing purpose
- Combustible Gas Indicator
- Lower Explosive Limit (L.E.L.)
- Mock form to fill out with data supplied
- Grade Leaks by example
- Purpose of One Call System
 - Identify types of information found in O&M manual and Design and Construction Manual
 - Lockout/Tagout
 - Personal Protective Equipment required on construction site
 - Match actual installation with schematic
 - Read circular pressure and temperature charts
 - Read pressure gauges
 - + numbers on drawings
 - Purpose of a line locator

[Back to Top](#)

INSTRUMENT SPECIALIST

Revised 08/12/2004

Written Tests:

Basic Abilities:

- Ability to use three dimensional drawings
- Ability to reason using words and symbols

[Back to Top](#)

INSULATOR, EXTRACTION PLANT

Revised 08/13/2004

Written Tests:

Basic Abilities:

- Ability to use three dimensional drawings
- Ability to reason using numbers

[Back to Top](#)

LEADER GENERAL OFFICE GARAGE

Revised 03/26/99

Written Test:

- Paperwork fill-in with data supplied
- Lockout/tagout
- Personal Protective Equipment
- Hazardous materials handling
- Read tire gauge
- Read oil gauge

Hands-on Test:

See the following pages

[Back to Top](#)

Leader, General Office Garage

Revised 6/24/97

Task1 Identify handtools.

List

- _____ 1. Screwdrivers, standard, phillips, torques.
- _____ 2. Sockets, standard & metric.
- _____ 3. Open End wrenches, standard & metric.
- _____ 4. Box End wrenches, standard & metric.
- _____ 5. Oil filter wrench, strap, cup, and spring.
- _____ 6. Battery Terminal wrench, spreader, and cleaner.

[Back to Top](#)

Leader, General Office Garage

Revised 2/27/97

Task 2 Connect jumper cables to start a vehicle.

Steps

- ___ 1. Wear some type of eye protection.
- ___ 2. Make sure vehicles do not touch.
- ___ 3. Check battery terminals for cable tightness, corrosion, and leaks.
- ___ 4. Connect red jumper cable clamp to positive terminal of good battery.
- ___ 5. Connect other end of red jumper cable to positive terminal of bad battery.
- ___ 6. Connect black jumper cable to negative terminal of good battery making sure that red and black clamps do not touch.
- ___ 7. Connect other end of black jumper cable to bare metal on frame or body of car with dead battery.
- ___ 8. Turn ignition on to start car.
- ___ 9. Remove jumper cables from terminals in reverse order.

[Back to Top](#)

Leader, General Office Garage

Revised 2/27/97

Task 3 Test a battery.

Using Battery Cell Tester

Steps

- ___ 1. Remove cell caps.
- ___ 2. Check to see if cells are at proper fluid level.
- ___ 3. Put red tester in first cell and black tester in second cell.
- ___ 4. Check reading on tester and move on down the row of cells.

For Sealed Battery using another type of Tester

Steps

- ___ 1. Test by connecting red clamp of tester to positive terminal and black clamp to negative terminal.
- ___ 2. Hold switch down for ten seconds.
- ___ 3. Get reading on tester of battery strength.

[Back to Top](#)

Leader, General Office Garage

Revised 2/27/97

Task 4 Test antifreeze level.

Steps

- ___ 1. If engine is hot, start car to remove pressure from radiator cap. Car can continue to run. Use face shield.
- ___ 2. If vehicle is cold remove radiator cap slowly. Use face shield.
- ___ 3. Insert base of tester into antifreeze and squeeze bulb on tester to extract fluid.
- ___ 4. Remove tester from radiator holding hose up.
- ___ 5. Check color and temperature reading.
- ___ 6. If brown or dirty in color, antifreeze needs changing.
- ___ 7. If vehicle is low on fluid, start car, turn on heater, and let run for a while to allow mixture to circulate through system.
- ___ 8. Add 50-50 mix of antifreeze and water to desired level.

[Back to Top](#)

Leader, General Office Garage

Revised 2/27/97

Task 5 Check tire pressure.

Steps

- _____ 1. Tire air pressure should be checked when tires are cold to get a correct reading.
- _____ 2. Know correct tire pressure for tires and for car. Tires are marked on side walls. Correct pressure for car is usually on sticker inside driver's door.
- _____ 3. Check tire pressure using standard pressure gauge.
- _____ 4. Take action accordingly.

[Back to Top](#)

Leader, General Office Garage

Revised 2/27/97

Task 6 Fill a vehicle with compressed natural gas (CNG).

Steps

- ___ 1. Park vehicle next to pump.
- ___ 2. Locate connection on vehicle. Could be in grill, in back of vehicle, under the hood, or in same place as for gasoline.
- ___ 3. Select the proper connection for your type of filler.
- ___ 4. Snap filler hose connection to vehicle connection.
- ___ 5. Turn on pump.
- ___ 6. Open valve on vehicle connection.
- ___ 7. Pump will fill and shut off when proper pressure is met.
- ___ 8. Turn off pump.
- ___ 9. Close valve on vehicle connection.
- ___ 10. Vent gas from filler hose using relief valve.

[Back to Top](#)

LEAK INSPECTOR

Revised 03/26/99

Written Test:

Indications of leaking gas

Purpose of a flamepak, probe bar, CGI (including L.E.L.)

Identifying valve position (open vs. closed)

Cockstop, ball, rising stem, plug

Mock form to fill out with data supplied

Grade Leaks by example

Maps- survey line on map and which side of street line is located on

[Back to Top](#)

LOADER LOADER, SR.

Revised 08/13/2004

Computer Skills Test:

- using a mouse
- navigating from screen to screen
- locating specific information in the database

Written Tests:

Basic Abilities:

- Ability to comprehend basic vocabulary words
- Ability to perform basic math skills

[Back to Top](#)

**MAINTENANCE MECHANIC, BLDG.
MAINTENANCE MECHANIC, BLDG., SR.**

Revised 03/26/99

Written Test:

- Paperwork fill-in with data supplied
- Lockout/tagout
- Confined Entry Permit
- Personal Protective Equipment for climbing and chemical handling
- Hazardous materials handling
- Read circular gauges
- Basics of :
 - boilers
 - absorption machine
 - chill water pump
 - air handlers
 - pneumatic controls

Hands-on Test:

See the following pages

[Back to Top](#)

Maintenance Mechanic, Building
Maintenance Mechanic, Building, Sr.

Revised 2/24/97

Task 1 Identify handtools a state their general use.

List of handtools

I.D.	Use	
___	___	1. toothless pipe wrench
___	___	2. basin wrench
___	___	3. hammer drill
___	___	4. regular drill
___	___	5. drain snake
___	___	6. crowbar
___	___	7. pipe cut-offs
___	___	8. pipe threader
___	___	9. hole saw

[Back to Top](#)

**Maintenance Mechanic, Building
Maintenance Mechanic, Building, Sr.**

Revised 2/24/97

Task 2 Install a filter in the air handler system.

STEPS

- ___1. Turn off electricity to air handler.
- ___2. Remove the air handler filter cover.
- ___3. Remove the old filter.
- ___4. Install new filter with arrow pointing correct way.
- ___5. Replace filter cover.
- ___6. Turn on electricity to air handler.

[Back to Top](#)

Maintenance Mechanic, Building
Maintenance Mechanic, Building, Sr.

Revised 2/24/97

Task 3 Identify plumbing fittings.

LIST

- 1. all thread nipple
- 2. water hand valve
- 3. copper 3/4" tee
- 4. 90 degree ell
- 5. street ell
- 6. union
- 7. ball valve
- 8. coupling or collar

[Back to Top](#)

Task 4 Replace a spark plug in the boiler

STEPS

- ___ 1. Turn off the electrical disconnect, lockout and tag.
- ___ 2. Remove the spark plug wire.
- ___ 3. Remove the spark plug with an adjustable wrench.
- ___ 4. Select the correct spark plug to install, from assorted spark plugs.
- ___ 5. Install the spark plug.
- ___ 6. Tighten plug.
- ___ 7. Reinstall the spark plug wire.
- ___ 8. Remove lockout and tag and turn power on to boiler.

[Back to Top](#)

Maintenance Mechanic, Building, Sr.

Revised 2/24/97

Task 5 Install a 110-volt outlet.

STEPS

- ___1. Strip 1/2" insulation on the white and black wires.
- ___2. Connect the white wire to the white or silver screw.
- ___3. Connect the black wire to the copper or gold screw.
- ___4. Connect the ground wire to the green screw.
- ___5. Install outlet into box.

[Back to Top](#)

Task 6 Test the continuity of a 110 volt extension cord with a multi-tester.

STEPS

- ___ 1. Set the multi-tester to ohms
- ___ 2. Touch the red lead of the multi-tester to the white wire.
- ___ 3. Touch the black lead of the multi-tester to black and ground, (one at a time)
- ___ 4. Tell test administrator if cord is bad or not and what on the multi-tester tells you the cord's condition. (all zero's on the meter)

[Back to Top](#)

MEASURING STATION OPERATOR, MAJOR

Revised 03/26/99

Computer Skills Test:

- using a mouse
- navigating from screen to screen
- locating specific information in the database

Written Test:

Paperwork fill-in and calculate totals
Lockout/tagout
Personal Protective Equipment in general and for pumping out a scrubber
Hot Work Permit
Hazardous materials handling
Confined Entry Permit
Read circular pressure gauges
Read circular chart (pressure, volume)
Chart ink colors
Knowledge of valve operators
Valve positions (open vs. closed)
Corrosion protection for above ground pipe
Pneumatic gate and control valves
Read pipe/gate/M&R schematics

[Back to Top](#)

MEDIUM EQUIPMENT OPERATOR

Revised 03/26/99

Upgrade into the position

[Back to Top](#)

METER READER

Revised 03/26/99

Computer Skills Test:

- using a mouse
- navigating from screen to screen
- locating specific information in the database

Written Test:

- Reading meters (indexes)
- Identifying indications of leaking gas
- Identifying gas valve position (open vs. closed)
- Identifying proper meter installation

[Back to Top](#)

PAINTER

Revised 03/26/99

Hands-on Test:

See the following pages

[Back to Top](#)

Task 1 Prepare and paint a wall

STEPS

- ___ 1. Remove all outlet covers, switch covers, etc.
- ___ 2. Prime area with a no sand cleaner.
- ___ 3. Mask off areas such as base boards, knobs, handles, etc.
- ___ 4. Lay drop cloths on floor.
- ___ 5. Select correct paint.
- ___ 6. Mix paint.
- ___ 7. Paint area.
- ___ 8. Clean up painting equipment and dispose of waste according to regulations.
- ___ 9. Remove masking.
- ___ 10. Reinstall outlet covers, switch covers, etc.

[Back to Top](#)

Task 2 Prepare and paint a piece of metal furniture

STEPS

- ___ 1. Lay drop cloths on floor.
- ___ 2. Place furniture on drop cloth.
- ___ 3. Mask off knobs, handles, etc.
- ___ 4. Select correct paint.
- ___ 5. Mix paint.
- ___ 6. Paint furniture.
- ___ 7. Clean up painting equipment and dispose of waste according to regulations.
- ___ 8. Remove masking.

[Back to Top](#)

SERVICE DISPATCHER

Revised 03/26/99

Computer Skills Test:

- using a mouse
- navigating from screen to screen
- locating specific information in the database

[Back to Top](#)

UTILITY PERSON - START

Revised 04/18/00

Written Test:

- Properties of natural gas, safe handling
- Leak Classification
- Pipeline replacement basics
- Corrosion basics
- Bonding cables on cutting out section of pipeline
+ numbers
- Indications of leaking gas
- Recognize pipe fittings
- Read gauges
- Read circular charts
- Know generally what type of information is found in
 - O&M manual
 - Design and Construction manual
 - CNG Job Safety and Health Handbook
- DOT regulations, OSHA regulations and EPA regulations related to pipeline
construction and replacement work
- Know color of pipeline markers
- Lockout/Tagout
- Personal Protection Equipment
- One Call (Miss Utility)
- Material Safety Data Sheets (MSDS)
- Fill in mock form with data supplied
- Dangers of methanol handling
- Dangers of refueling hot equipment
- Valve positions (open vs. closed) all types
- Read indexes
- Working around Traffic
- Hazardous Material Hauling
- Oxygen Requirements around Pipeline Repair
- Combustible Gas Indicator inspection

[Back to Top](#)

WASTE WATER TREATMENT PLANT OPERATOR

Revised 03/26/99

Written Test:

- Read gauges
- Read scale on measuring pole
- Refueling hot equipment
- EPA Regulations dealing with WWT Plant Operations
- Identify purpose and use of a manifest
- Lockout/Tagout as it pertains to WWTPO job
- PPE for chemical handling
- Identifying valve position all types (open vs. closed)
- Mock form to fill out with data supplied
- Fire hazard around treatment plant

[Back to Top](#)

WELL TENDER

Revised 03/26/99

Written Test:

- Reading meters (indexes) and charts
- Identifying indications of leaking gas
- Identifying gas valve position (open vs. closed)
- Identify proper PPE required
- Lockout/Tagout
- Procedures to purge a line (O&M)
- Blowdown procedures to install a gauge
- Reading a pressure gauge
- Explain safety concern with handling methanol
- Explain the environmental concern with blowing drips
- Hazmat hauling
- Mock paperwork including text and numbers
- Reading a graph-type chart (tested by the Wonderlic Basic Skills Test)
- Explain safety concern of smoking around well tender facilities
- Identifying pen and ink colors for measurement

[Back to Top](#)

CLERICAL JOBS TESTING REQUIRED

UNION CLERICAL JOBS

TITLE	Clerical Aptitude	Computer Skills Test	Written Test
City Plant Clerk, Leader	X	W, E	X
Draftsperson	X	W, E	X
Draftsperson, Division	X	W, E	X
Draftsperson, Sr.	X	W, E	X
Electronic Data Processor	X	W	
Electronic Data Processor, Sr.	X	W	
Engineering Clerk	X	W, E	
Environmental Clerk	X	W, E*	
Extraction Plant Clerk	X	W, E	
Extraction Plant Clerk, Leader	X	W, E	X
Field Clerk, Leader	X	W, E	X
Gas & By-Products Tester	X	W, E	
Gas & By-Products Tester, Sr.	X	W, E	X
Information Systems Specialist	X	W, E	
Lease Ownership Clerk	X	W, E	X
Mail Clerk	X	W	
Marketing and Rates Clerk	X	W, E*	
Marketing and Rates Clerk, General	X	W	
Microfilm Equipment Operator	X	W	
Phototypesetting Specialist	X	W	X
Printing Machine Operator	X	W	X
Production Clerk	X	W, E	
Purchasing Clerk	X	W, E	
Stationery/Stockroom Clerk	X	W, E	
Storage Clerk	X	W, E	
Telephone Switchboard Operator	X	W	
Tracer	X	W, E	X
Traffic Clerk	X	W, E	

W - Windows/file management

E - Microsoft Excel Spreadsheet

* - No current incumbents. Needs assessed at the time of future postings for the need for each of the tests.

CITY PLANT CLERK, LEADER FIELD CLERK, LEADER

Revised 04/04/00

Clerical Aptitude Test

Computer Skills Test:

- Windows/ File Management
copying/moving/deleting documents to/from folders
- Excel
entering data
formatting text
aligning text
creating formulas for column and row totals

Written Test:

- Automated time cards (ATA)
- Capital projects
- Common Financial System (CFS)
Accounts payable
Project inquiry/approval
- Drafts/checks
- Material Safety Data Sheets (MSDS)
- O&M budgets
- Old accounting terms vs. new accounting terms
- P-card usage

[Back to Top](#)

**DRAFTSPERSON
DRAFTSPERSON, DIVISION
DRAFTSPERSON, SR.
TRACER**

Revised 04/04/99

Clerical Aptitude Test

Computer Skills Test:

- Windows/ File Management
 copying/moving/deleting documents to/from folders
- Excel
 entering data
 formatting text
 aligning text
 creating formulas for column and row totals

Written Test:

- Drafting/map terminology
- Types of map and their uses
- Types of drawing views
- Types of lines in a CAD system
- Types of drafting scales
- Use of scales
- Calculating volume
- Types of piping fittings
- Using the CAD system
- Create a missing plan view in Autocad

[Back to Top](#)

**ELECTRONIC DATA PROCESSOR
ELECTRONIC DATA PROCESSOR, SR.**

Revised 04/04/00

Clerical Aptitude Test

Computer Skills Test:

- Windows/ File Management
copying/moving/deleting documents to/from folders

[Back to Top](#)

ENGINEERING CLERK

Revised 04/04/00

Clerical Aptitude Test

Computer Skills Test:

- Windows/ File Management
 - copying/moving/deleting documents to/from folders
- Excel
 - entering data
 - formatting text
 - aligning text
 - creating formulas for column and row totals

[Back to Top](#)

ENVIRONMENTAL CLERK

Revised 04/04/00

Clerical Aptitude Test

Computer Skills Test:

- Windows/ File Management
 - copying/moving/deleting documents to/from folders
- Excel
 - entering data
 - formatting text
 - aligning text
 - creating formulas for column and row totals

[Back to Top](#)

EXTRACTION PLANT CLERK

Revised 04/04/00

Clerical Aptitude Test

Computer Skills Test:

- Windows/ File Management
 - copying/moving/deleting documents to/from folders
- Excel
 - entering data
 - formatting text
 - aligning text
 - creating formulas for column and row totals

[Back to Top](#)

EXTRACTION PLANT CLERK, LEADER

Revised 04/04/00

Clerical Aptitude Test

Computer Skills Test:

- Windows/ File Management
copying/moving/deleting documents to/from folders
- Excel
 - entering data
 - formatting text
 - aligning text
 - creating formulas for column and row totals

Written Test:

- Tank Car loading stations for various products
- Specific product lines at Hastings/Galmish
- Liquid products terminology and abbreviations
- Specific product tank capacities/locations
- Ben's Run by-product specifics

[Back to Top](#)

GAS & BY-PRODUCTS TESTER

Revised 04/04/00

Clerical Aptitude Test

Computer Skills Test:

- Windows/ File Management
 - copying/moving/deleting documents to/from folders
- Excel
 - entering data
 - formatting text
 - aligning text
 - creating formulas for column and row totals

[Back to Top](#)

GAS & BY-PRODUCTS TESTER, SR.

Revised 04/04/00

Clerical Aptitude Test

Computer Skills Test:

- Windows/ File Management
 copying/moving/deleting documents to/from folders
- Excel
 entering data
 formatting text
 aligning text
 creating formulas for column and row totals

Written Test:

- Gas chromatograph
- Gas and by-products terminology and abbreviations
- Properties of materials (i.e. flash point, heat value)

[Back to Top](#)

INFORMATON SYSTEMS SPECIALIST

Revised 04/04/00

Clerical Aptitude Test

Computer Skills Test:

- Windows/ File Management
 - copying/moving/deleting documents to/from folders
- Excel
 - entering data
 - formatting text
 - aligning text
 - creating formulas for column and row totals

[Back to Top](#)

LEASE OWNERSHIP CLERK

Revised 04/04/00

Clerical Aptitude Test

Computer Skills Test:

- Windows/ File Management
copying/moving/deleting documents to/from folders
- Excel
 - entering data
 - formatting text
 - aligning text
 - creating formulas for column and row totals

Written Test:

- Legal terms dealing with wills, property ownership, etc.
- Calculating fractional shares of interest in property and oil and gas rights
- WV and PA laws concerning wills, inheritance, etc.
- Calculating royalties based on fractional shares of ownership

[Back to Top](#)

MAIL CLERK

Revised 04/04/00

Clerical Aptitude Test

Computer Skills Test:

- Windows/ File Management
copying/moving/deleting documents to/from folders

[Back to Top](#)

MARKETING AND RATES CLERK

Revised 04/04/00

Clerical Aptitude Test

Computer Skills Test:

- Windows/ File Management
 - copying/moving/deleting documents to/from folders
- Excel
 - entering data
 - formatting text
 - aligning text
 - creating formulas for column and row totals

[Back to Top](#)

MARKETING AND RATES CLERK, GENERAL

Revised 04/04/00

Clerical Aptitude Test

Computer Skills Test:

- Windows/ File Management
copying/moving/deleting documents to/from folders

[Back to Top](#)

MICROFILM EQUIPMENT OPERATOR

Revised 04/04/00

Clerical Aptitude Test

Computer Skills Test:

- Windows/ File Management
copying/moving/deleting documents to/from folders

[Back to Top](#)

PHOTOTYPESETTING SPECIALIST

Revised 04/04/00

Clerical Aptitude Test

Computer Skills Test:

- Windows/ File Management
copying/moving/deleting documents to/from folders

Written Test:

- Phototypesetting terminology
- Measuring systems in printing
- Points vs. pica
- Types of form design
- Attributes and combinations of color
- PC color correction
- Color separation
- Metal plate imaging
- Printing/imaging processes and equipment

[Back to Top](#)

PRINTING MACHINE OPERATOR

Revised 04/04/00

Clerical Aptitude Test

Computer Skills Test:

- Windows/ File Management
copying/moving/deleting documents to/from folders

Written Test:

- Types of printing processes and medium used
- Characteristics and properties of inks
- Dampening systems
- Color mixing
- Paper processing (i.e. scoring, perforating)
- Printing equipment and function
- Multiple color process jobs
- Printing and printing equipment terminology
- Paper terminology (i.e. sheets, impressions, reams)

[Back to Top](#)

PRODUCTION CLERK

Revised 04/04/00

Clerical Aptitude Test

Computer Skills Test:

- Windows/ File Management
 - copying/moving/deleting documents to/from folders
- Excel
 - entering data
 - formatting text
 - aligning text
 - creating formulas for column and row totals

[Back to Top](#)

PURCHASING CLERK

Revised 04/04/00

Clerical Aptitude Test

Computer Skills Test:

- Windows/ File Management
 - copying/moving/deleting documents to/from folders
- Excel
 - entering data
 - formatting text
 - aligning text
 - creating formulas for column and row totals

[Back to Top](#)

STATIONERY/STOCKROOM CLERK

Revised 04/04/00

Clerical Aptitude Test

Computer Skills Test:

- Windows/ File Management
 - copying/moving/deleting documents to/from folders
- Excel
 - entering data
 - formatting text
 - aligning text
 - creating formulas for column and row totals

[Back to Top](#)

STORAGE CLERK

Revised 04/04/00

Clerical Aptitude Test

Computer Skills Test:

- Windows/ File Management
 - copying/moving/deleting documents to/from folders
- Excel
 - entering data
 - formatting text
 - aligning text
 - creating formulas for column and row totals

[Back to Top](#)

TELEPHONE SWITCHBOARD OPERATOR

Revised 04/04/99

Clerical Aptitude Test

Computer Skills Test:

- Windows/ File Management
copying/moving/deleting documents to/from folders

[Back to Top](#)

TRAFFIC CLERK

Revised 04/04/00

Clerical Aptitude Test

Computer Skills Test:

- Windows/ File Management
 - copying/moving/deleting documents to/from folders
- Excel
 - entering data
 - formatting text
 - aligning text
 - creating formulas for column and row totals

[Back to Top](#)