
**Alabama Natural Gas Association
Gas Worker
Training & Assessment Program**

PLAN A TRAINING TASKS

The topics on this Plan will be covered during training in the next 30 days. You will be evaluated on your possession of the knowledge, skills, and abilities covered in this Plan in approximately 30 days. You need to take personal responsibility to learn these things. Take your Plan with you as you work. Ask questions. Mark the things you have covered in class and in the field. Write in the date when each topic was covered. If you haven't covered a topic five days prior to the end of the 30-day period, ask the supervisor to review this with you.

Category & Topic	Discussed	Demonstration (Observed)	Field Demonstration (Participated)
General Expectations of the Job			
Be on time			
Ask questions. If you don't understand something, ask.			
Need to have a willing-to-learn attitude.			
If you see someone doing something you think you can do, ask if you can help or do it on your own. Try to be a participant when possible, not just an observer.			
Don't think that you know everything. Everyone has something to learn. Be teachable.			
Get familiar with your OPMs and other things that we share with you.			
It's a dangerous job. Always be safe. Err on the side of caution. We will teach you how to work safely, but you need to pay attention to what we say and do. Always wear your safety equipment and take the appropriate precautions.			

Category & Topic	Discussed	Demonstration (Observed)	Field Demonstration (Participated)
It is important that you do not provide information to anyone (like a customer or citizen passing by who has a random question) until you know what you are doing. That means that you refer any questions to me or another employee. If you see someone doing something that is dangerous or potentially dangerous – like walking into or near our work area, that <u>is</u> a situation where you need to say something to them immediately and then get me or another person with more experience to address the situation. Safety always comes first.			
We strive to have great customer relations. While you should not be providing information to customers, you should always be friendly, even if customers are not nice to you.			
It is important to respect, but not be fearful, of gas. Don't say or do things that unnecessarily create fear in customers.			
Think before you speak. Going back to the previous point, think about what you say and how you say things. What you say could unnecessarily cause alarm in those less knowledgeable about gas.			
Part of our job is to keep ourselves and our customers safe, but we must also keep the general public and nosey bystanders safe. That means you must be aware of your surroundings.			
This is a physically demanding job that will require great stamina and exposure to weather, animals, rodents, etc.			
You represent the company. Your appearance is important. Your actions can reflect positively or negatively on the company.			
Meeting the needs of the company – often emergency needs – is the number one priority. This often means that we must skip lunch, go to lunch late, get off work late, etc.			

Category & Topic	Field		
	Discussed	Demonstration (Observed)	Demonstration (Participated)
Details matter. Do things right the first time. We want to do the work once and do it correctly the first time. The work we do is important to the customer and it is regulated by external sources. We take pride in the work we do.			
This is a learning opportunity. Pay attention. Stay off your phone. Listen to what is being communicated and listen and watch what is happening around you (people, traffic, etc.).			

Category & Topic	Discussed	Demonstration (Observed)	Field Demonstration (Participated)
Properties & Characteristics of Natural Gas			
Flammability Range – 5-15%			
Weight of Gas relative to Propane, Air, etc. – gas is lighter than propane and air and will rise			
LEL Percentage Range (Lower Explosive Limit) – 5%			
UEL Percentage Range (Upper Explosive Limit) – 15%			
Combustion by-products – CO ₂ – It can include a variety of materials, but the most important thing to know is that CO ₂ is always a byproduct, and it can be dangerous.			
Additive added to gas (Mercaptan) – This is added to make gas smell. Natural gas, on its own, has no odor. Mercaptan is added as a safety feature.			
Low/Distribution/Service Pressure, Medium Pressure, Intermediate Pressure, High Pressure, Transmission Feeder – Gas lines have different levels of pressure. Often, the pressure must be regulated down to provide service to customer.			

Category & Topic	Discussed	Demonstration (Observed)	Field Demonstration (Participated)
Proper Safety Equipment & Concerns Regarding Surroundings			
Gloves - use and application			
Safety Glasses/Goggles/Shield - use and application			
Safety shoes - use and application			
Fire Retardant Clothing			
Ear protection - use and application			
Hard hat - use and application			
Fire extinguisher - use and application			
Working around heavy equipment (swing radius of equipment, don't ride on a bucket, always make eye contact with the operator)			
Air Respirator - use and application			
Dust Mask (N95 Mask) – use and application			
Special work site considerations (crime, pedestrians, animals, traffic, weather)			
Work site considerations of working around excavation holes, moving equipment, hot materials/equipment			
OEM Standards			
Blowing Gas (response)			
Parking the Truck (chock & cones)			
Directing traffic (procedures, safety equipment, signs)			

Category & Topic	Discussed	Demonstration (Observed)	Field Demonstration (Participated)
Confined spaces			
Static control			
Cathodic Protection (CP) direct current electricity flowing from a ground bed through the electrolyte composition of soil surrounding steel pipe to the pipe itself to prevent corrosion of the pipe. Simply stated, it is current placed on the main to prevent corrosion.			
Atmospheric Corrosion is a hazard to company equipment and materials. It is something that breaks down the properties of the material and can eventually lead to leaks. Understand what it is and how to recognize the signs. Common signs include steel pipe that has flaking paint, pits in the pipe, and rust.			
Brass Hammers are used on steel and cast iron to avoid sparks.			
Routine inspection on fire extinguishers (other PPE)			

Category & Topic	Discussed	Demonstration (Observed)	Field Demonstration (Participated)
Tools, Equipment & Material (identify and demonstrate proper use and application)			
Pipe wrenches (offset and standard)			
Channel locks			
Crescent wrenches			
Screwdriver (Phillip's/flat head - variety of sizes)			
Allen wrenches			
Tape measure			
Nut drivers (various sizes)			
Chisel/Punches			
Wire brush (brass)			
Ladder (how to set & use, precautions)			
Hammer (ball peen hammer ~ brass)			
Probe bar/rod			
Ground Fault Interrupter (GFI)			
Meter lock key			
Curb box key			
Two-way radio (FCC regulations, proper procedures)			
Jackhammer (safety, proper procedures)			

Category & Topic	Discussed	Demonstration (Observed)	Field Demonstration (Participated)
Sledgehammer			
Air drills			
Air chisel			
Tamper			
Shovel			
Sharpshooter			
Cadweld/Exothermoweld			
Squeeze-off (plastic squeeze off tools)			
Chamfer			
Pipe reamer			
Pipe cutters (plastic cutters, four-wheel cutters)			
Files (smooth, rasp)			
Peeler/Scraper			
Hack saw			
Hand saw			
Sawzall			
Wire stripper			
Hook knife/Hawkbill			
Water pump			

Category & Topic	Discussed	Demonstration (Observed)	Field Demonstration (Participated)
Utility locator			
Blower/aerator			
Air jack			
Air chuck			
Air coupler			
Air test gauge			
Butt fusion machine			
Concrete saw			
Guillotine cutters			
Line-up clamp			
Electrofusion box			
Gas Detection Equipment (GMI, CGI, Sensit, Rover)			
Mastic/Roscote/Wrap			
Pipe dope			
Wire nuts/Tracer wire			
Shoring equipment			
Temperature Gun/Pyrometer			
Sacrificial Anodes (for steel only)			
Pipe horn			

Category & Topic	Discussed	Demonstration (Observed)	Field Demonstration (Participated)
Tracer Wire			
Caution Tape			
Plumber's Plug			
Teflon			
Angle Grinder			
Duct Tape			
Electrical Tape			
Impact			
Chinese Finger/Beckett/Carrot/Pull-head			
Chains and Binders			
Grease Gun & Grease			
Marker Ball			
Anchor Bolts			
Sharpie			
Tapping Equipment			
GPS Pole			
Handheld GPS/Trimble			
Service Maps			
Metfit Pliers			

Category & Topic	Discussed	Demonstration (Observed)	Field Demonstration (Participated)
Generator			
Valve Boxes			
Valve Wrenches			
Meters			
Importance of stocking the truck and putting tools back in the proper place			

Category & Topic	Discussed	Demonstration (Observed)	Field Demonstration (Participated)
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Types and Sizes of Pipes and Fittings

(identify & understand types, sizes, and common applications)

Pipe

For each type of pipe:

- Recognize the pipe visually.
- Understand the uses (where, in what situations)
- How to clean
- Dangers when working with

- Black iron pipe (schedule 40)
- Milwrap pipe
- Epoxy-coated pipe
- Polyethylene pipe (PE, yellow plastic, orange plastic)
- Bare steel pipe
- Galvanized pipe
- Cast iron

Fittings for Steel Pipe

- No blo
- Pumpkin/Turtle shell
- Bottom out/Bottom in
- Stopper fitting
- TEEs
- Couplings
- Weld reducer (concentric/eccentric)

Category & Topic	Discussed	Demonstration (Observed)	Field Demonstration (Participated)
• Plugs			
• 90s (Elbow)			
• 45s			
• Dead Ends			
• Steel valves			
• Service/House/Gas Cock/Stop (low, medium, and high pressure)			
• Caps			
• Bell reducers			
• Street Ts			
• Bolt-on saddles			
• Wrap around			
• Transitions			

Fittings for Plastic (PE) Pipe

• Riser			
• Butt fusion fittings			
• Socket fitting			
• Service saddles/Tees/taps			
• Polyvalves			
• Caps			

Category & Topic	Discussed	Demonstration (Observed)	Field Demonstration (Participated)
• Service Head Adaptor and insulator			
• Excessive Flow Valves (EFVs)			
• Metfit fittings			
• Electrofusion fittings			
• Male/Female – Recognizing the difference			

Category & Topic	Discussed	Demonstration (Observed)	Field Demonstration (Participated)
Conducting the Truck Inspection			
Check for flat tires			
Ensure everything is tied/locked down			
Ensure no debris is on the truck or trailer that might fall off			
Ensure nothing or no one is behind the vehicle			
Ensure all the bin doors are closed and latched			
Ensure chock is placed under the rear tires			
Place cones in front and back			
Pre-trip inspection of fluids			
Ensure the truck is fueled and ready to go			
Ensure the truck is stocked and cooler is filled			
Ensure fire extinguishers are in compliance and fully charged			

Category & Topic	Discussed	Demonstration (Observed)	Field Demonstration (Participated)
Gauges			
Air Test Gauge/Spring Gauge			
Recording Gauge/Chart Box			
Test gauges to ensure they work and are within calibration			
Discuss differences in pressure gauges			

Category & Topic	Discussed	Demonstration (Observed)	Field Demonstration (Participated)
Conducting a Soap Test			
Discuss the process, purpose, and applications			
Demonstrate the proper procedure			

Category & Topic	Discussed	Demonstration (Observed)	Field Demonstration (Participated)
Utility Colors			
Yellow – Gas, Hydrogen, Oil			
Orange – Fiber, Phone, Telecommunication			
Purple – Reclaimed water			
Red – Power			
Green – Sewer			
Blue – Water			
White – Proposed Digging/Work Area			
Pink – Survey			