

2016 Devon EHS Orientation

Your Safety & Your Co-workers' Safety is YOUR Responsibility



Devon EHS Orientation Facility Safety



- Emergency alarms and exits
- First Aid/AED locations
- Severe weather procedure
- Restroom locations
- Please silence your cell phones

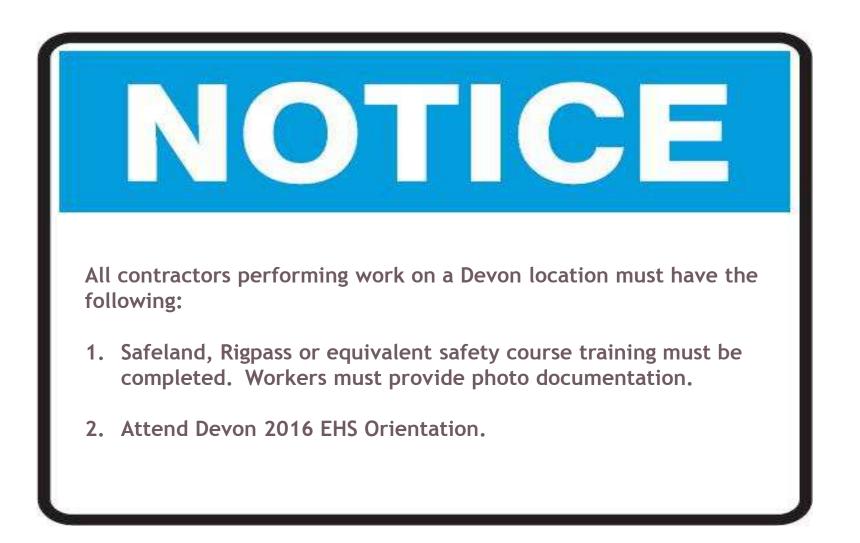
Atmospheric Monitoring Local Policy Change





Devon EHS Orientation Required Training





Devon EHS Orientation Agenda



- Message from Dave Hager, Devon President & CEO
- Safety Vision
- STOP Work Authority
- Requirements on Devon locations
- SIF and Devon metrics
- SIF preventers
- Environmental Awareness
- Local support information



Dave Hager Devon Energy - President & CEO





No job is so important or task so urgent that the necessary steps cannot be taken to perform it **<u>safely</u>** to maintain the health of our employees, contractors and the public.

Devon EHS Orientation Safety Vision



Devon is a company where everyone is prepared, accountable and takes ownership of safety for themselves and others, so everyone goes home and returns to work safely.



Devon EHS Orientation Stop Work Authority



Who has the authority and obligation to **STOP** work on a Devon location?

STOP WORK AUTHORITY

It's your right, responsibility and obligation, to speak up and **STOP** any action, task or behavior that **YOU** think may cause harm or damage to yourself, a co-worker, or the environment.



Remember to practice safe behaviors today and every day, so we can achieve zero incidents together.

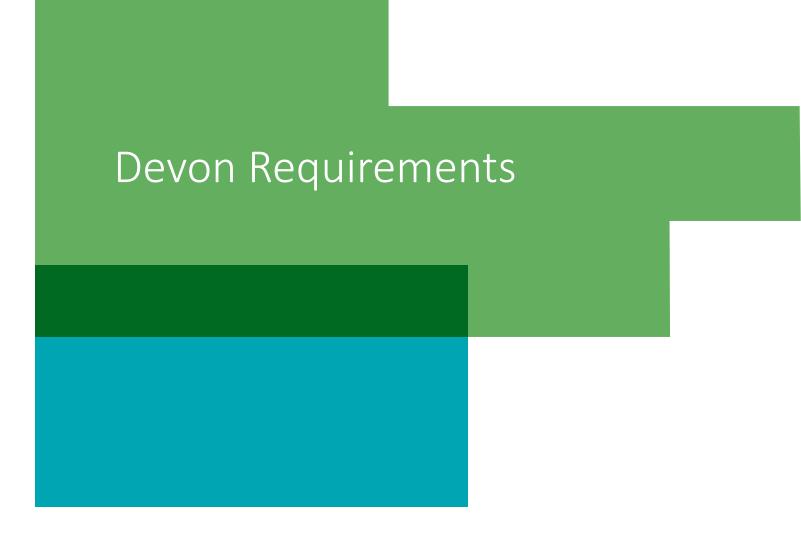
Devon EHS Orientation Stop Work Authority – EHS Hotline





1-844-310-3439

Call the EHS Hotline if you tried to stop work but were not supported.



Devon EHS Orientation Safety Responsibilities



Your safety and your co-workers' safety is **YOUR** responsibility. You have the authority and obligation to **STOP** any unsafe task or operation.

- Report to the Devon person-in-charge (PIC) when arriving on location and before beginning any tasks.
 - Sign in/out, when available.
- **IMMEDIATELY** report all events to the Devon PIC:
 - Injuries
 - Spills/releases
 - Fires
 - Vehicle
 - Property Damage
 - Near misses

evision	/Approval: 9-20-2013	devon
		Pre-Task Tailgate
Pre-Tasi	k Tailgate	
Date / 1		Division / Business Unit:
Pre-Plan		II Service Service Service
1.	What procedures, protocols and standa	rd operating procedures must be used?
2.	What permits (Confined Space Entry, H	ot Work, Ground Disturbance, etc.,) are required?
Cover th	e Basics Discussion	
1.	What task are we completing?	
2.	Who is the PIC?	
3.	Who has experience with this task?	
	What were the successes and / or failures from past experiences?	
5.	What coordination is needed for multiple crews to work on the same task or location?	
6.	What additional notifications should be made before starting this task and who made the notifications? Interdepartmental communication (M&M, Drilling, Production, Gas Control), supervisor, etc.	
7.	What is the energy isolation plan (LOTO)?	
8.	What permits (Confined Space Entry, H	ot Work, Ground Disturbance, etc.,) are required?
Let's dis	cuss Exposure Recognition	
1.	What could cause an uncontrolled relea	ase of energy?
2.	What chemicals, vapors or dust could we be exposed to? Note: Review SDS	
3.	What objects could be dropped?	
4.	What could we fall off of / on to / in to or through?	
5.	What are the hazards of the heavy / mobile equipment that will be used?	
6.	What are the hazards of the equipment that will be worked on or around?	
7.	What are we doing to protect ourselves against hot / cold temperatures?	
8.	What are the hazards with moving, positioning, loading and lifting piping and /or equipment?	
9.	What are the electrical hazards? Example: Overhead lines, grounded electrical boxes, etc.	
10.	What are the tools that will be used and what is the condition?	
Let's dis	cuss PPE & Monitoring	
1.	What additional PPE above the minimum is required? Example: Fall protection, hearing protection, face shield, respiratory protection, etc.	
2.	What additional monitoring devices are required? Example: Personal / portable gas monitors, air sampling equipment, NORM monitoring equipment, etc.	
Let's dis	cuss what if Exposures Change	
1.	What will be done if the task, plan or people on the location changes?	
2.	What type of emergency could occur and what actions should be taken (spill, release, fire, injury, illness, etc.)? Example: Who will we contact? Where is the designated safe location? What location would we use to summon help? (GPS, driving directions, etc.)	
3.	What would signal us to shut the job down?	
4.	How will we communicate during this t	ask?



ted prior to t changes and ntrolling the tors from hazards.

between all

asures used to

hent in the

cable languages.

Devon EHS Orientation Minimum PPE Requirements



PPE must be provided by workers' employer

- **Eye Protection** Safety glasses with side-shields or prescription eyewear that meet ANSI/ISEA Z87.1. The frames and lenses must be stamped this includes Oakley and other brands of eyewear.
- Foot Protection Safety toed footwear must meet ANSI Z41.1 or ASTM F2413-2005/ASTM F2412-2005.
- **Head Protection** Must meet ANSI/ISEA Z89.1. Hardhats will not be modified, such as engraving, painting or re-shaping.
- Hearing Protection Worn in all high-noise areas above 85 dB(A), identified by signage.
- **Hand protection** Appropriate for the hazard.
- **Respiratory Protection** If your job task requires you to wear a respirator, you must be clean shaven, have completed a medical evaluation and fit test.

Devon EHS Orientation Minimum PPE Requirements



Work Clothing - FRC will be worn as the outermost layer on "active sites."

- Hardhat liners, raingear and high visibility vests shall be flame resistant.
- Clothing under FRC should be 100% cotton, wool or cotton/wool blend
- Clothing that may become entangled in machinery is prohibited. All shirts must be buttoned, tucked in and loose strings removed or tucked in.





Active sites: site where flammable or explosive materials are or may be present which includes but is not limited to: drilling, completion, well or other production facility, compressor station, plant, and pipeline right-of-way sites.

Devon EHS Orientation

Site Expectations



It is important that everyone comes to work well rested and not under the influence of drugs or alcohol. This includes prescribed medication that could affect performance on location.

- The use or possession of illegal drugs, drug paraphernalia, alcoholic beverages, firearms or weapons of any type or pornography is prohibited.
- All persons and vehicles on company property are subject to search at any time. Location may be under video surveillance.
- Unauthorized personnel and animals are not allowed on Devon worksites (e.g., family members, friends, pets, etc.).



Devon EHS Orientation Site Expectations



Energy Drinks: Prohibited on Devon Locations

What are energy drinks and how can they affect me?

- Energy drinks contain caffeine as the primary source of "energy."
- The caffeine that is found in energy drinks acts as both a stimulant and a diuretic.
- Caffeine as a stimulant can cause anxiety attacks, heart palpitations and insomnia. It can also make you jittery or irritable when consumed in large or regular quantities.
- Caffeine as a diuretic causes your kidneys to remove extra fluid from your body.
- When an energy drink is consumed while sweating, you can become severely dehydrated.

Recent Incident summary involving energy drinks:

After shift, a worker was driving to town when he started bleeding from his nose, sweating profusely and began feeling light-headed. He pulled his vehicle over and was

taken to the ER. The ER doctor told the injured person that his symptoms were caused by 5-Hour Energy drinks consumed that day. He had consumed only two energy drinks.

ALCOHOL CONTENT - Which of the following energy drinks contain alcohol?

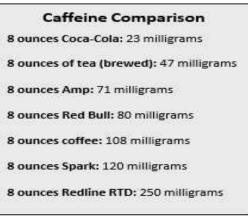


^{*}Photos used with permission of the Marin Institute



Hint: 5 of the 11 drinks shown contain alcohol. Some may contain the equivalent of 3 cans of beer!

Energy drinks are NOT allowed on Devon locations.



Devon EHS Orientation

Hazardous Materials



- Hazardous chemicals brought on Devon property must be accompanied with a Safety Data Sheet (SDS).
- Provide a copy of the SDS to the Devon PIC.
- Devon Hazardous Materials list and SDS's are located online in the Devon 3E database.
- Chemicals must be properly labeled to communicate the product name, physical and health hazards along with PPE requirements.



Devon EHS Orientation Fire Prevention



Fire Prevention –smoking (including e-cigarettes) is only permitted in designated areas.

- Areas must be 35 feet from a combustible material and at least 75 feet from any wellhead, process vessel, pipeline or storage tank containing combustible or flammable liquids.
- Smoking materials and lighters are not allowed in work area.
- Properly dispose of cigarette butts in a designated receptacle.
- Devon employees and contractors are not expected or required to fight fires and should only attempt to extinguish incipient stage fires.



Devon EHS Orientation Housekeeping



Good housekeeping is essential to maximizing safety, so keep your work area orderly and clean at all times.

- Minimize and manage all waste.
 - Contractors will remove all drums, containers, trash, frac sand, etc., they brought onto the worksite and will dispose of properly.
- Appropriate measures will be used to prevent spills and leaks (e.g., drip pans, splash guards, containment rings, caps, etc.).

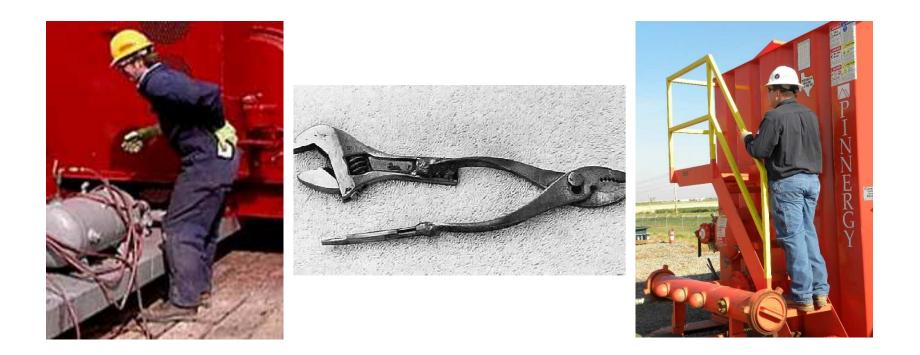


Devon EHS Orientation Lifting, Ladders/Stairs & Homemade Tools

• Use good lifting techniques and/or team lift when manually lifting and handling equipment.

devor

- "Homemade" lifting devices and homemade tools are prohibited.
- Maintain three-points of contact while ascending or descending ladders and stairs.



Devon EHS Orientation Asbestos



Some facilities may contain asbestos or presumed asbestos containing material (PACM).

- Materials may include: insulation, pipe wrap, building materials, gaskets, etc.
- Do not disturb and contact the Devon PIC if you have a concern with PACM or if the PACM is friable.





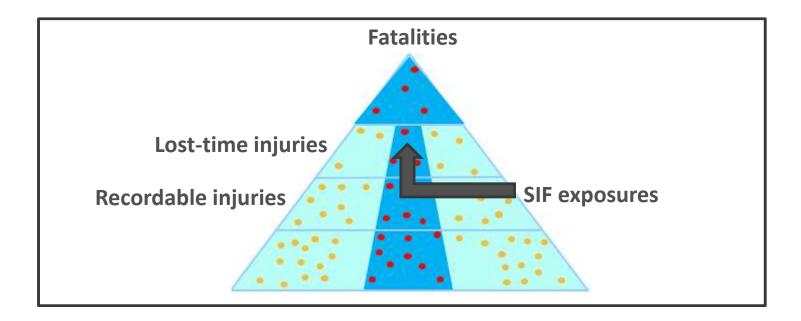
SIF and Devon Metrics

Devon EHS Orientation Serious Incident and Fatality (SIF)



What is a SIF?

- Life-threatening injury or illness
 - Requires immediate intervention of internal and/or external emergency response personnel to provide life sustaining support.
- Life-altering injury or illness
 - Results in permanent or long-term impairment, disfigurement, loss of use of an internal organ, body function, or body part or ability to earn a living.



Devon EHS Orientation Incidents – 2015 Data



Life-threatening injury or illness Life-altering injury or illness **Requires immediate** Results in permanent or intervention of internal long-term impairment, 0 and/or external emergency disfigurement, loss of use **Fatalities** response personnel to provide of an internal organ, body life sustaining support. function, or body part or 31 ability to earn a living. **Serious Injuries** (SIF Recordables) 121 **Total injuries** (Recordables) 4,847 **Incidents** reported

Devon EHS Orientation Fatalities



5/23/2013 - While transporting BOP, pole truck came in contact with the overhead power lines, fatally injuring the swamper, who was walking behind the load.

6/3/2013 – While rigging down the rig floor, a rigger unhooked his harness prior to attempting to re-attach the chain sling to the fast line of the crane. In doing so, he fell 26 feet from the rig floor and was fatally injured.

10/25/2013 – While acting as a spotter and using a tag line attached to a load, a worker was run over and sustained major crushing injuries to his legs, lower abdominal and pelvic areas.

12/3/2014 – A worker was loading a man lift onto a flatbed transport truck when the man lift was driven off center and fell off the edge of the trailer.

Four families will never be the same



Devon EHS Orientation Fall Protection

Fall Protection - Full body harness with 100 percent tie-off will be used when a potential free fall hazard of four feet or greater exists.

Fall protection must be:

- ANSI Z359.1 approved.
- Properly maintained and stored.
- Inspected prior to each use for cleanliness, wear, damage, alterations or signs that it has been impacted.
- Tagged "Do Not Use" and immediately removed from service or destroyed if defective.
- Harnesses, lanyards and self-retracting lifelines are required to have an annual documented inspection.

Note: Harnesses and lanyards must be paired according to manufacturer recommendations.







Devon EHS Orientation Confined Space Entry

Confined Space Entry - Confined Space Entry permit written by Authorized Permit Issuer/CSE Supervisor is required for entry into a confined space. Confined spaces include, but are not limited to, mud pits, cellars, frac tanks, flow pits, vessels, tanks, coolers and valve canopy's.

Confined Space – a space that is large enough and so configured that:

- An individual's entire body can enter to perform assigned work;
- It has limited or restricted means for entry or exit; and
- It is not designed for continuous human occupancy

(SIF Incident) While cleaning out water based mud out of a frac tank, a contractor's personal H2S monitor went off. Post incident investigation revealed the permit was not properly completed. The date listed was almost two weeks prior. Atmospheric testing information was never collected or recorded. The permit was not signed or dated by the Entrant or Supervisor.





Devon EHS Orientation Confined Space Entry



CSE Reclassification

- A confined space can be reclassified by a Confined Space Supervisor from a permit-required to a non-permit required confined space if there are no hazards or potential hazards in the space.
- Reclassify a permit-required confined space to a non-permit required confined space if:
 - The confined space poses no actual or potential atmospheric hazards
 - All hazards within the space are eliminated without entry into the space
 - Physical hazards remain eliminated
- Provide continuous atmospheric monitoring inside the confined space while occupied by entrants.
- Confined Space Supervisor must use the Confined Space Entry Permit form to document the reclassification.

Devon EHS Orientation Hot Work



Hot Work – A permit written by an authorized permit issuer is required if an ignition source will be used:

- within 75 feet of a hydrocarbon source,
- within 35 feet of a combustible material,
- when operating a motor vehicle within 10 feet of production equipment,
- within an electrically classified area.
- Permit always required under burn ban conditions.
- Use of non-classified, battery-powered devices (cell phones, cameras, computers, test equipment, cordless tools, flashlights, etc.) in classified areas require continuous LEL monitoring.
 - An example of continuous LEL monitoring is using a 4-gas monitor.



(**SIF incident**) While dressing out the 5 1/2 casing for the well head, a contractor started to cut the casing when it flashed inside the casing due to the presence of gas.

Devon EHS Orientation Energy Isolation / LOTO



Energy Isolation - Lockout/tagout & <u>TRY</u> will be performed prior to performing any service or maintenance activities on equipment.

- All employees and contractors involved in the job must affix an identified personal lock to the appropriate isolation device or group lock box and maintain control of the key.
- Personal lockout devices and tagout devices shall indicate the identity of the person applying the devices.
- Personal locks will not be removed without approval from the lock owner unless the non-owner lock removal process is used.



(SIF incident) A contractor was preparing to pull an Electronic Submersible Pump (ESP). The Lease Operator had shut off the drive that was believed to be for the correct equipment, based on a paper tag that was on the ESP drive (Drive was mislabeled). The contractor placed his lock on the drive and proceeded to the vent box to unhook the cable and wellhead connection. He opened up the vent box, and without checking for voltage began to unhook the cable and was shocked.

Safety Briefing Energy Isolation / LOTO



Delaware Basin Local Initiative – VERY IMPORTANT!!!

 Devon personnel (full time employee only) <u>must</u> be the first lock on and last lock off during all LOTO operations on Devon owned equipment. The Devon employee must review the energy isolation permit and review all isolation points with the contractor. They must also walk the line out and verify a zero energy state before they leave location.

Only exceptions to the local initiative

- <u>**Pump Jacks**</u>- pumping unit companies or roustabouts can service without Devon operator lock. They must apply their own lock and perform LOTO.
- <u>Electrical Panels</u>- qualified and approved electrician can lock and tag out their own electrical panel.
- **PRVs** (e.g. Horizontal separators) the service company that does annual inspections can apply their own locks.

Note: Contract lease operators are not considered Devon operators. They cannot LOTO equipment without a Devon operator.

Devon EHS Orientation Mechanical Lifting and Rigging

Mechanical Lifting & Rigging

- Forklift and crane operators must have proof of current training/certification.
- Non-conductive taglines will be used to guide and position suspended loads and be of sufficient length to keep workers out of the fall path.
- Homemade lifting devices are prohibited on Devon locations.
- Break-over or lever-style load tensioning devices a.k.a. boomers, load binders or snap binders (excluding walking boomers) are not allowed on Devon locations unless equipped with a safety release that prevents recoil.
- Locate, identify and communicate overhead electric lines.



(SIF incident) A lifting strap broke causing drilling equipment to fall 2 feet and land on top of the well head. A worker was positioned under the suspended load.





Devon EHS Orientation Mechanical Lifting and Rigging



- Slings and chains must have a legible label that contains the following:
 - Manufacturer, date of proof test, proof test certification number, working load limits, length and diameter.
- Slings shall only be attached to forklifts and loaders using a closed loop system such as shackles.



Devon EHS Orientation Mechanical Lifting and Rigging – Critical Lift

Load weight is greater than 75% of crane Personnel are lifted by cranes using personnel man lift basket. Lifting over occupied structures. Lifting over above ground in-service operation equipment containing hydrocarbons. Within 25 feet of power lines. A lift that requires the use of multiple cranes.

Any lift deemed high risk/high exposure.

capacity.

If any of these situations apply, a critical lift plan is required.







Devon EHS Orientation Journey Management



Journey Management - Obey posted speed limits and wear your seatbelt at all times. Drive slowly on locations and lease roads.

- Vehicles should be operated in a way that minimizes backing.
- Use a spotter for all vehicles larger than a pickup, when a person is available on location to assist.
- Set parking brake or chock wheels if the vehicle is left unattended while running.
- All rig moves require a pre-planned route that's communicated during the pretask tailgate. Any deviation – **stop the job**.
- Pole trucks will not leave Devon locations with the poles elevated must be racked.

(SIF incident) A truck driver was positioning his truck to drop the shaker to be drug under power lines. While positioning the truck the driver got within 2 feet of the overhead power lines resulting in the lines arcing and blowing out four tires.

Devon EHS Orientation Journey Management



Defensive Driving

- Be well-rested while driving.
- Do not perform data entry task using electronic devices such as cell phones while operating motor vehicles.
- No texting, emailing or dialing phone numbers while the vehicle is in motion.
- Drive in a manner that actively seeks your goal of returning home safely.
- Respect others on the road and avoid driving situations that compromises your safety.



Treat driving as a critical task and NOT as a method of transportation.



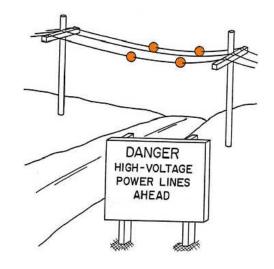
Electrical – Assign only Qualified Person(s) to work on or near exposed energized parts of electrical equipment that operate at voltage of 50 volts or more to ground.

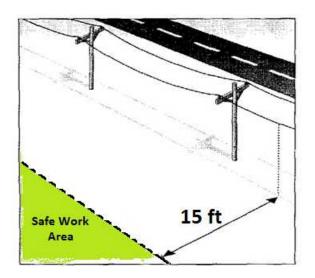
- Vehicles and mechanical equipment must maintain minimum of 10-foot clearance from power lines, if any parts of their structure can be elevated.
 - If unable to maintain 10 feet, the line will be de-energized.
 - Derrick or guy lines will not come within 10 feet of energized power lines during rig up, rig down or while operating the rig.
- Locate, identify, and communicate existing overhead electrical hazards during pretask tailgate safety meetings.





- Maintain proper work clearances for overhead power lines.
- While in transit, maintain a minimum 4 foot clearance with vehicles, equipment and loads of material traveling under power lines.

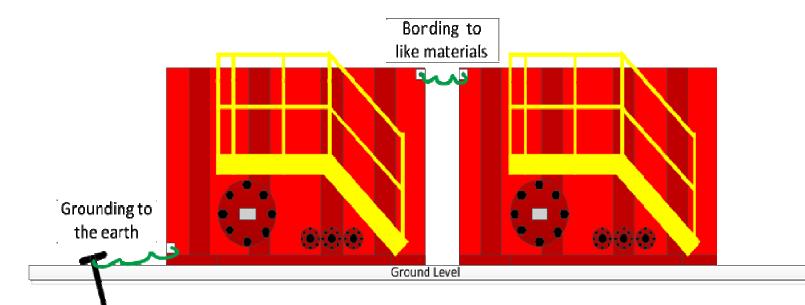




• Do not park temporary equipment or store material underneath or within 15 feet of energized power lines.

Electrical – Bonding versus Grounding

- devon
- Bonding cable must be attached prior to loading tank truck with flammable material.
- All metal and nonconductive containers (e.g., barrels, totes, cans, etc.) will be bonded to the filling system when filled with flammable material.
- Ensure all stranded metal and metal equipment on location is bonded together and grounded to a single continuous system unless otherwise specified.
- Verify proper bonding for equipment, raceways, cable trays, and enclosures are maintained to ensure electrical continuity.





- An approved live electrical work permit and Electrical Safety Analysis (ESA) must be developed / approved by contract supervision for work that cannot be de-energized and must be done live.
 - A Devon representative must sign the Live ESA & Electrical Permit prior to the activity being performed.
- Switches, controllers and circuit breakers must be able to be mechanically locked out in the off position for lockout/tagout purposes.



Devon EHS Orientation Ground Disturbance - Excavation



Excavation – A One-Call must be submitted and cleared by respondents when required per the state's One-Call requirements, and when driving ground rods:

- Complete a Mechanical Excavation Permit for mechanical excavation activities and verify the One-Call is active and not expired.
 - Mechanical Excavation Permit required when driving ground rods.
- Competent person must complete a Daily Inspection Permit prior to workers entering an excavation <u>></u> four foot in depth.





(SIF incident) An active Devon poly gas line was scraped with a track hoe bucket while the adjacent water line was being stripped out for tie-in work during new construction.

Devon EHS Orientation Hydrogen Sulfide (H2S)



Hydrogen Sulfide – H_2S training and a personal monitor are required when entering Devon facilities where H_2S signs are posted.

- Personal monitors are required and will be worn in the breathing zone.
 - not to be placed on: pant leg, belt loops or back of the hard hat.
- Monitors will be calibrated and bump tested per the manufacturer's recommendation.
- If a personal or fixed H₂S monitor alarms:
 - immediately evacuate the area crosswind and upwind.
 - notify the Devon PIC and do not re-enter the area until it is deemed safe by qualified personnel.



(SIF Incident) Water hauler was exposed to H2S after pulling load of water from York 1-2H. His monitor alarmed as he pulled hose from load line after shutting valve. He became light headed and short of breath. He called a coworker who took him to Mercy Hospital in Watonga, OK.

Environmental Awareness

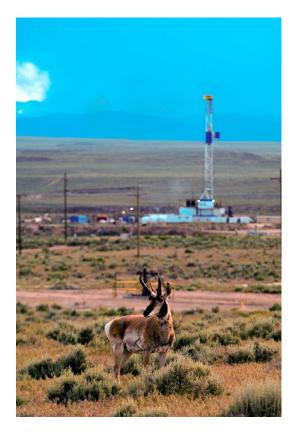


Devon EHS Orientation Environmental Stewardship



We will continually seek to understand our relationship with the environment and adopt technically sound and economically feasible controls that will avoid or mitigate negative impact.

- Pollution Prevention: We will employ appropriate technology to minimize discharges, reduce waste, use materials efficiently and encourage recycling.
- Report any environmental issues to the Devon PIC.



Environmental compliance is everyone's responsibility.

Devon EHS Orientation Spill Response

devon

Secondary containment is required if you bring an oil bearing product or anything that can cause a sheen on water in 55 gallons or greater containers on a Devon site.

If you have a spill on location:

- 1. Protect yourself
- 2. Eliminate sources of ignition
- 3. Restrict access to spill area
- 4. Notify Devon PIC and EHS Professional

Use assistance of EHS Professional to:

- 5. Contain the spill
- 6. Clean up the spill as soon as possible
- 7. Coordinate waste disposal



NOTE: Submit an emergency one call prior to conducting any excavation during spill clean-up as required by state regulation.

Devon EHS Orientation Waste Management



Waste Management - Responsibilities

Properly store, manage, transport and dispose of any waste generated by activities and operations on Devon locations in compliance with applicable laws and regulations.

Best Practices

- Plan ahead and know the waste type
- Good housekeeping
- Recycle and reuse
- Segregate different wastes
- Properly dispose



Devon EHS Orientation Devon Values



We value a safe and environmentally friendly work place. We can only achieve this by **working as a team** and basing our business decisions around our core values.

Our employees and contractors are the **most valuable** part of our business.

Our goal is for everyone to **go home safe** so they can continue to provide for their family and be good citizens in our communities.





Local Support Information



Amancio Cruz Local EHS Professional (575) 513-2453 (Monument, Jal, Night Ops.)	Brian Schultz Local EHS Professional (405) 763-7082 (Completions, Loco Hills)	<u>Montral Walker</u> Local EHS Supervisor (432) 556-6454 (Delaware Basin)
Randy Sanchez Local EHS Professional (505) 350-0777 (Carlsbad, Pecos)	<u>Dan Werner</u> Sr. Superintendent (575) 746-5598	<u>Jerry Mathews</u> Sr. Superintendent (575) 748-0161
<u>Scott Poe</u> Local EHS Professional (575) 513-5535 (Bell Lake, Todd/Apache)	Jason Voegeli EHS Manager (405) 228-7787 (Delaware Basin)	In case of an emergency (800) 361-3377 (Also as needed: 911)

NYSE: DVN www.devonenergy.com

page 49

Local Support Information

2015 Safety Briefing



<u>Matt Husman</u>				Jerry Mathews
Sr. Superintendent - Wes	st		S	r. Superintendent - East
(575) 748-1821				(575) 748-0161
Kenny Kidd				Roy White
Production Superintender West	nt -		Pro	duction Superintendent - East
575-746-5586				575-748-0194
Dan Werner				Tom Cunningham
Superintendent - Construct	tion		Sup	erintendent - Construction
575-746-5598				575-748-0166
		Tim Smiley		
	Sup	erintendent - Completi	ions	
		575-748-9935		
<u>Amancio Cruz</u>			lr	n case of an emergency
Local EHS Professional				(800) 361-3377
(575) 513-2453				

Local Support Information

2016 Safety Briefing



<u>Amancio Cruz</u> Local EHS Professional (575) 513-2453 (Monument, Jal, Night Ops.)	<u>Brian Schultz</u> Local EHS Professional (405) 763-7082 (Completions, Loco Hills)	<u>Montral Walker</u> Local EHS Supervisor (432) 556-6454 (Delaware Basin)
Randy Sanchez Local EHS Professional (505) 350-0777 (Bell Lake, Pecos)	<u>Matt Husman</u> Sr. Superintendent (575) 748-1821	<u>Jerry Mathews</u> Sr. Superintendent (575) 748-0161
<u>Scott Poe</u> Local EHS Professional (575) 513-5535 (Carlsbad, Loco Hills)	<u>Marty Summers</u> EHS Manager (405) 609-7785 (Delaware Basin)	In case of an emergency (800) 361-3377 (Also as needed: 911)

