

E&B OILFIELD SERVICES INC.

DATE: 5/11/15

EXPIRES: Indefinite



## **RECLAMATION PROCEDURES**

Reclamation and Abandonment Reclamation Objective Oil and gas development is one of many uses of private and public lands and resources. While development may have a short- or long-term effect on the land, successful reclamation can ensure the effect is not permanent. During the life of the development, all disturbed areas not needed for active support of production operations should undergo “interim” reclamation in order to minimize the environmental impacts of development on other resources and uses. At final abandonment, well locations, production facilities, and access roads must undergo “final” reclamation so that the character and productivity of the land and water are restored.

E&B must achieve the short-term stability, visual, hydrological, and productivity objectives of the surface management agency and take the steps necessary to ensure that long-term objectives will be reached through natural processes. The reclamation process involves restoring the original landform or creating a landform that approximates and blends in with the surrounding landform. It also involves salvaging and reusing all available topsoil (whatever soil is on top) in a timely manner, revegetating disturbed areas to native species, controlling erosion, controlling invasive nonnative plants and noxious weeds, and monitoring results.

With proper reclamation measures, over time, local native species or crops will become re-established on the site and the area will regain its original productive and scenic potential. Reclamation generally can be judged successful when a self-sustaining, vigorous, diverse, native (or otherwise approved) plant community is established on the site, with a density sufficient to control erosion and non-native plant invasion and to re-establish wildlife habitat or forage production. Erosion control is generally sufficient when adequate groundcover is reestablished, water naturally infiltrates into the soil, and gullying, headcutting, slumping, and deep or excessive rilling is not observed.

Pipeline and Flowline Reclamation Pipeline routes and roads should be co-located as much as possible to reduce reclamation needs and impacts to other resources. Pipeline trenches are to be compacted during backfilling and must be maintained to correct backfill settling and prevent erosion. Reclamation involves placing fill in the trench, compacting the fill, regrading cut-and-fill slopes to restore the original contour, replacing topsoil, installing temporary waterbars only where necessary to control erosion, and revegetating in accordance with a reclamation plan

Final reclamation includes recontouring the road back to the original contour, seeding, controlling noxious weeds, and may also include other techniques to improve reclamation success, such as ripping, scarifying, replacing topsoil, constructing waterbars, pitting, mulching, redistributing woody debris, and barricading. Seeds of native, perennial species or other plant materials specified by the surface management agency or surface owner must be used. If waterbars were used, they should be removed and seeded following successful revegetation.

## **General Equipment Safety**

Keeping equipment in good working condition is half the formula for being safe. The other half is the ability and awareness of the person operating the equipment.

### **Safety = Good Working Equipment + Able and Aware Operator**

Equipment failure causes some farm accidents; however, most farm accidents are caused by tired, stressed, rushed, distracted, or incompetent operators.

In addition to the specific safe handling rules for each type of farm equipment, there are ten basic guidelines for equipment safety:

- Read and comply with the operator's safety manual for each piece of farm equipment.
- Prepare for safety by wearing appropriate clothing, having enough rest, not drinking alcohol, and ensuring that all workers have been trained and are capable of safely using the farm equipment.
- Keep all guards, shields, and access doors in place when the equipment is in operation
- Be aware of what you are doing and where you are going.
- Adjust equipment speed to fit operating conditions.
- Keep children and other people away from the working area.
- Take breaks from work, as necessary.
- Always stop the engine, disconnect the power source, and wait for all moving parts to stop, before servicing, adjusting, cleaning, or unclogging equipment.
- Display the slow moving vehicle emblem on equipment driven on public roadways
- Allow the engine to cool before refueling.

## **Farm Field Equipment**

Farm field equipment is agricultural machinery that is normally mobile. Examples of farm field equipment include combines, tractors and their implements, including self-propelled implements. Tractor accidents account for 500 to 600 fatalities each year.

### **General Tractor Safety**

Tractor accidents are the leading cause of fatalities and accidents on Texas farms and ranches. Approximately 42% of these accidents are the result of operators being run over by tractors, 36% are due to tractor roll-overs, and 5% involve riders who fall off the tractor and are then run over by the attached trailing equipment.

The following guidelines offer general safety tips for operating tractors:

- Know your tractor and how to use it safely. Regularly review the safety precautions in your operator's manual.

- Prepare for tractor work by inspecting the vehicle and wearing appropriate clothing.
- Ensure that new and inexperienced workers are properly trained in tractor operation.
- Never allow riders. A tractor should have only one person on board.
- Teach children to use tractors only after they have developed the strength, size, and maturity to operate a tractor safely.
- Always wear a seat belt, when driving a tractor equipped with a ROPS.
- Disengage drives and turn the engine off before leaving the tractor unattended.
- Keep yourself and others away from moving parts.
- Hitch loads only to the drawbar. When using three-point rear hitches, add front end weights to maintain stability and control steering.
- Never bypass start the engine.

### **Tractor Driving Safety**

The following guidelines provide tips for tractor driving safety:

- Watch where you are going at all times. Be sure everyone is out of the way before moving.
- Watch for and avoid obstacles, ditches, embankments, and holes.
- Slow down when turning, crossing slopes, or driving on rough, slick, or muddy surfaces.
- It is safer to back up an incline.
- Apply power slowly when pulling a heavy load.
- Lock the brake pedals together for single action braking.

Tractor operators can help prevent back roll-overs as follows:

- Only hitch loads to the drawbar.
- Limit the height of three-point hitches.
- Use front-end weights to stabilize heavy hauling loads.
- Start slowly.
- Change gears carefully.

Tractor operators can help prevent side roll-overs as follows:

- Increase tractor width, if possible.
- Lock brakes together for road travel.
- Operate tractors only as recommended.
- Avoid steep slopes and ditches.

- Be careful when pulling heavy loads or working with a front-end loader.
- Turn corners slowly.

### **Roll-Over Protective Structures**

ROPS consist of cabs or frames that protect tractor operators. They are designed to prevent tractor roll-over injuries. All tractors manufactured after October 25, 1976 must have ROPS. Older tractors may be retrofitted with a ROPS obtained from the tractor manufacturer. Installing a makeshift metal bar is not sufficient to protect people from the dangers of a tractor rollover. An OSHA-approved ROPS that meets durability tests is the only real protection against rollover injuries.

### **Bypass Starting**

Bypass starting occurs when an operator "bypasses" normal safety procedures and the normal starting system. A typical bypass occurs when someone standing on the ground touches a screwdriver or other metal object to the starter contacts and activates the engine. This action avoids standard safety devices that keep the engine from starting without someone in the driver's seat. Another method of bypass starting occurs when someone uses the starting button to start a tractor from the ground.

Any method of bypass starting is extremely dangerous and ***prohibited*** by E&B. If the tractor is in gear when the bypass occurs, the machine will start and can injure or kill anyone in its path. This situation is even more serious if the tractor is equipped with a hydraulic clutch. If a tractor with a hydraulic clutch is bypass started, it will not move immediately, but it will lurch suddenly with the buildup of hydraulic pressure.

All tractor operators should follow these safe starting rules:

- Never start a tractor by shorting across the starter terminals.
- Keep tractors in good working order so they will start normally.
- If a tractor has a neutral start switch, but it starts in gear with the key or starter button, something is wrong. Fix the tractor immediately.
- Never wire around or defeat the neutral start switch.
- Always place a tractor in neutral or park before starting it.
- Never start a tractor from the ground.

### **Hydraulic Equipment Safety**

Farm equipment operators must be extremely careful when working around hydraulic equipment. Hydraulic pressure is often strong enough to knock a person out if a leak or explosion occurs.

Follow these guidelines when working with hydraulic equipment:

- Inspect hydraulic equipment regularly for leaks. Report and fix any leaks immediately.
- Ensure that all couplings are properly installed and in good working condition.

- Ensure that all lines and fittings are in good condition. Repair or replace any equipment that is not in good condition.
- Lock transport wheels and support jacks on implements in place before disconnecting hydraulic cylinders. This action will prevent sudden shocks to the machine or personal injury.
- Keep couplings and hoses in good repair so that the hydraulic system can safely sustain maximum pressure.

### **Guards, Shields, and PTOs**

Guards and shields are extremely important because they keep operators from inadvertently contacting, or being caught, by moving machinery parts. Ensure that moving parts are guarded or shielded whenever possible. In addition, to prevent burns or fires, shield heat-producing components (e.g., exhaust pipes).

Since all moving parts cannot be guarded due to their function, stay clear of these machines when they are in operation. In addition, turn these machines off if they need service, maintenance, or repair.

### **Job Steps**

- Obtain company or land owner requirements
- Environmental Specialist inspects site to determine:
  - Seed mix if not specified
  - Contamination
  - Waterway protection
  - Drainage and erosion remediation
  - Other site specific issues
- Contact 811 and collect necessary documentation
- Complete dig permit
- Attend Kick Off meeting
- Complete JSA and other necessary permits
- Remove old fence or fence section, trash, and other debris
- Remove road base
- Remove contaminated soil
- Add topsoil
- Rip surface to 18 inches or other provided specifications
- Recontour landscape
- Groom spoil
- Plant seed
- Mulch and crimp
- Remove tools and equipment
- Remove trash and construction debris
- Rake or re-level work area ruts or dirt piles
- Notify E&B Supervisor, company representative or land owner for final inspection
- Make corrections if necessary

When working around others, always ensure that clear communication is used via radio or telephone, or in person. **Never take any action** without alerting others, as such could result in serious harm or accident. Always work in a calm orderly fashion as to not create an unsafe environment. Be conscious of your surroundings and use your **STOP WORK AUTHORITY** when necessary.

I \_\_\_\_\_ have read and understand the **E&B RECLAMATION PROCEDURES**

**Updated: May 11, 2015.**

I understand that I am required to follow these procedures. I also understand that my failure to do so may result in disciplinary action, termination and or increased personal liability.

\_\_\_\_\_  
Employee Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Supervisor Signature

\_\_\_\_\_  
Date