



# Drilling Safety in 2018

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# Drilling Safety in 2018

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TOPICS



# Drilling Safety in 2018

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## NDA Safety Guide



# Drilling Safety in 2018

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NDA Safety Guide

Recent Fatalities In Our Industry



# Drilling Safety in 2018

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NDA Safety Guide

Recent Fatalities In Our Industry

Relating Fatalities To Safety Guide



# Drilling Safety in 2018

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NDA Safety Guide

Recent Fatalities In Our Industry

Relating Fatalities To Safety Guide

What Has Changed?



# Drilling Safety in 2018

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NDA Safety Guide

Recent Fatalities In Our Industry

Relating Fatalities To Safety Guide

What Has Changed?

How Do We Grade Ourselves?



# Drilling Safety in 2018

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NDA Safety Guide

Recent Fatalities In Our Industry

Relating Fatalities To Safety Guide

What Has Changed?

How Do We Grade Ourselves?

Conclusion



# Drilling Safety in 2018

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## NDA Safety Guide



# NDA Drilling Safety Guide

Copyright 1985 Revised 1991, 2000, 2005



# Drilling Safety in 2018

## NDA Safety Guide

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- Has stood the test of time



# Drilling Safety in 2018

## NDA Safety Guide

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- Has stood the test of time
- No serious accidents when using guidelines



# Drilling Safety in 2018

## NDA Safety Guide

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- Has stood the test of time
- No serious accidents when using guidelines
- Developed for geotechnical industry



# Drilling Safety in 2018

## NDA Safety Guide

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- Has stood the test of time
- No serious accidents when using guidelines
- Developed for geotechnical industry
- Training is a key to safety



# Drilling Safety in 2018

## NDA Safety Guide

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- Has stood the test of time
- No serious accidents when using guidelines
- Developed for geotechnical industry
- Training is a key to safety
- Simple to understand and apply



# Drilling Safety in 2018

## NDA Safety Guide

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- Has stood the test of time
- No serious accidents when using guidelines
- Developed for geotechnical industry
- Training is a key to safety
- Simple to understand and apply
- Has been proven in court



# Drilling Safety in 2018

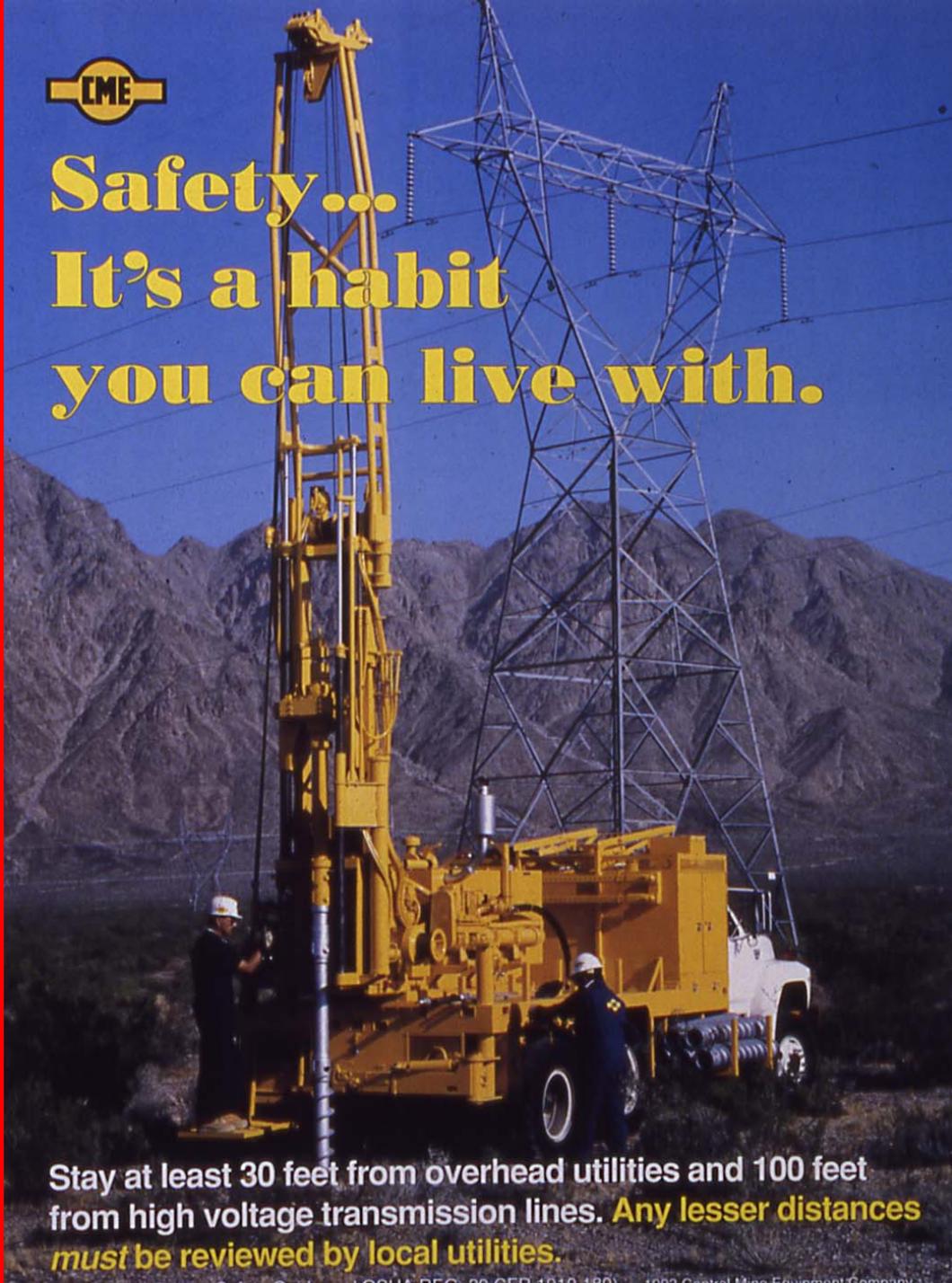
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NDA Safety Guide

Recent Fatalities In Our Industry



**Safety...**  
**It's a habit**  
**you can live with.**



Stay at least 30 feet from overhead utilities and 100 feet from high voltage transmission lines. **Any lesser distances must be reviewed by local utilities.**



# Utilities

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# Utilities

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Locate, note and emphasize all utilities on all boring plans and assignment sheets





# Utilities

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Locate, note and emphasize all utilities on all boring plans and assignment sheets

Consider all overhead power lines near drilling sites to be live and dangerous



# Utilities

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Locate, note and emphasize all utilities on all boring plans and assignment sheets

Consider all overhead power lines near drilling sites to be live and dangerous

Watch for low hanging overhead power lines



# Utilities

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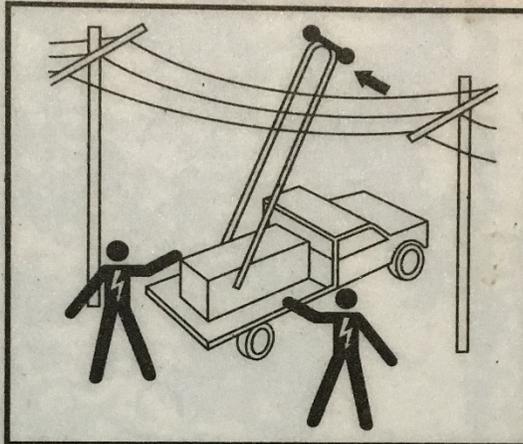
Locate, note and emphasize all utilities on all boring plans and assignment sheets

Consider all overhead power lines near drilling sites to be live and dangerous

Watch for low hanging overhead power lines

Before raising mast on site locate nearest overhead power lines and review safe working distance

**⚠ DANGER**



**Hazardous Voltage.**

Do not raise mast within  
100 feet of power lines.  
Do not move drill with  
mast raised.

Lesser distances must  
be reviewed with local  
utilities.



# Utilities

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Locate, note and emphasize all utilities on all boring plans and assignment sheets

Consider all overhead power lines near drilling sites to be live and dangerous

Watch for low hanging overhead power lines

Before raising mast on site locate nearest overhead power lines and review safe working distance

Consider all elements such as wind when deciding safe working distance



# Utilities

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Locate, note and emphasize all utilities on all boring plans and assignment sheets

Consider all overhead power lines near drilling sites to be live and dangerous

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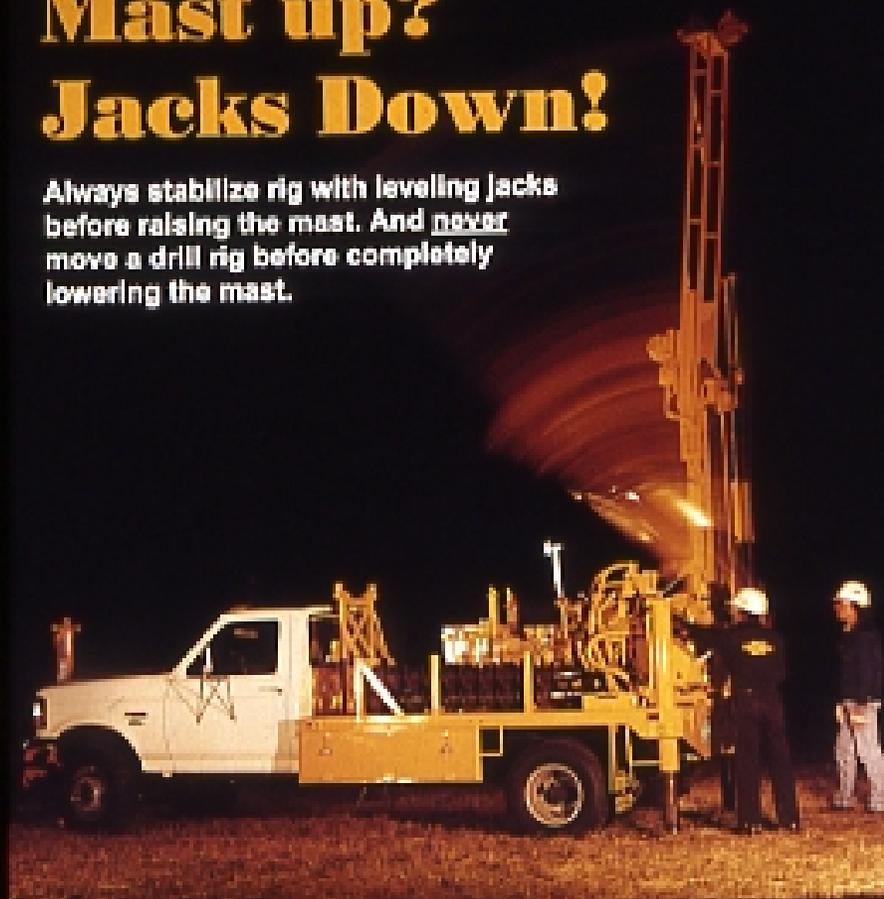
Consider all elements such as wind when deciding safe working distance

Only move drill rig with the mast down (stored)



# Mast up? Jacks Down!

Always stabilize rig with leveling jacks  
before raising the mast. And never  
move a drill rig before completely  
lowering the mast.



**Central Mine Equipment Company**

*Safety...It's a habit you can live with.*



# Utilities

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If there are any questions contact supervisor or utility

Be aware of and avoid all underground utilities

# WARNING



FIBER OPTICS  
CABLE ROUTE  
**BURIED CABLE**

BEFORE DIGGING, TRENCHING OR PUSHING  
PIPE IN THIS VICINITY  
CALL OPERATOR - ASK FOR  
ENTERPRISE 9800 - TOLL FREE  
SOUTHWESTERN BELL TELEPHONE COMPANY



CABLE  
ROUTE



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Be aware of and avoid all underground utilities

Signs locating underground utilities may be some distance from utility



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Only move drill rig with the mast down (stored)

If there are any questions contact supervisor or utility

Be aware of and avoid all underground utilities

Signs locating underground utilities may be some distance from utility

Always contact utility locator services and owners of utilities before drilling



# Entanglement

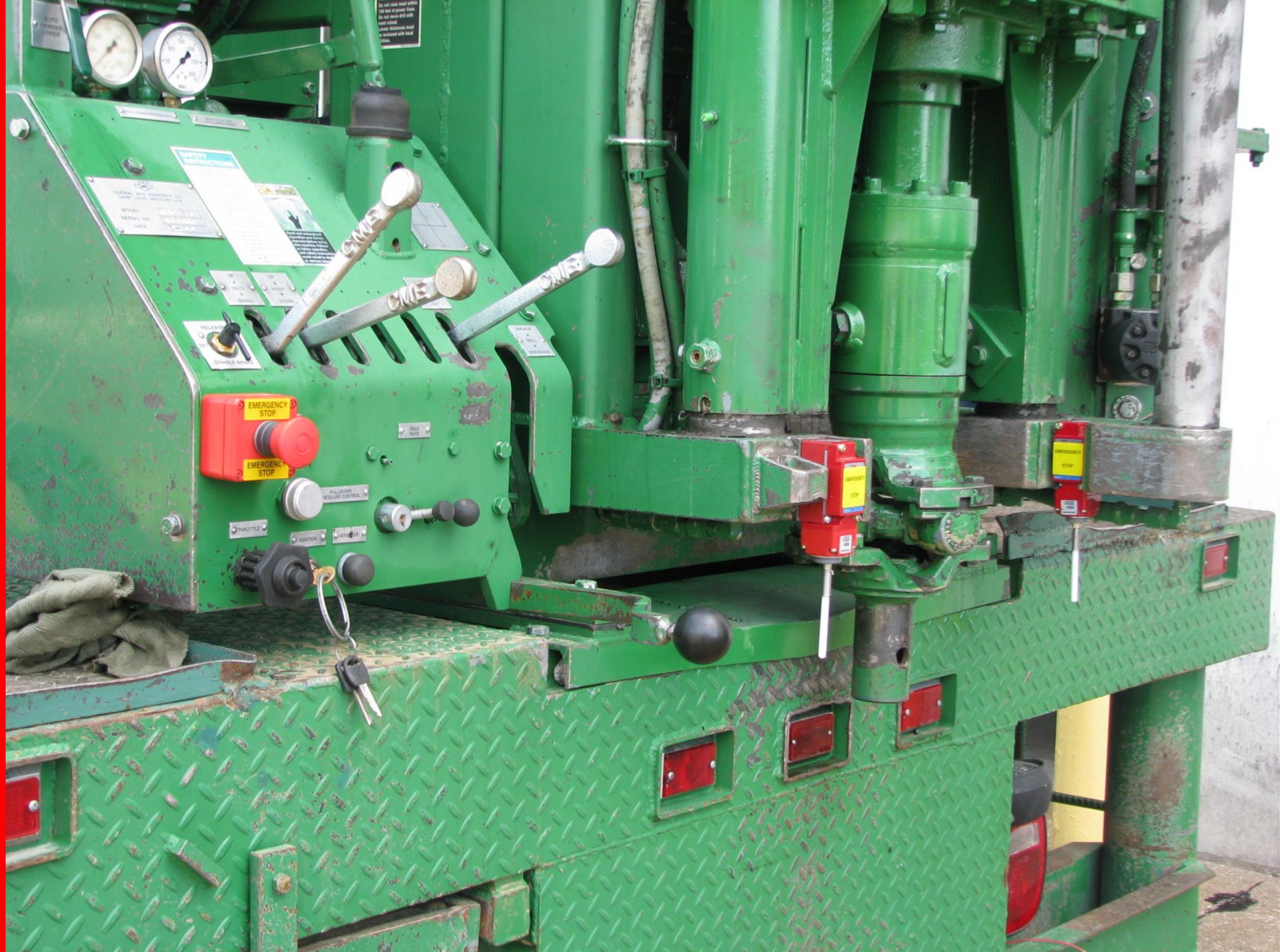
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# Entanglement

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Test safety shut down switches daily





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When rotating augers, stay clear of the rotating auger and other rotating components of the drill



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Establish a system of responsibility for activities such as tightening bolts, installing and removing auger fork, etc.



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When rotating augers, stay clear of the rotating auger and other rotating components of the drill

Establish a system of responsibility for activities such as tightening bolts, installing and removing auger fork, etc

Only use approved components

Never use hands or feet to remove auger cuttings



**Safety...**  
**It's a habit**  
**you can live with.**

*Always use a long-handled shovel to  
move cuttings.*  
*Never **kick** dirt away from the augers.*



# Entanglement

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Test safety shut down switches daily

When rotating augers, stay clear of the rotating auger and other rotating components of the drill

Establish a system of responsibility for activities such as tightening bolts, installing and removing auger fork, etc

Only use approved components

Never use hands or feet to remove auger cuttings

Do not wear loose fitting clothing



## DRESS TO DRILL

*Always wear close-fitting clothing and proper personal safety equipment when working around a drill rig. Avoid loose ends, draw strings, unfastened belts or boot laces, loose gloves, jewelry or any other items that might catch on rotating components or other moving objects.*

**Central Mine Equipment Company**



© 1997 Central Mine Equipment Company





# Entanglement

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Test safety shut down switches daily

When rotating augers, stay clear of the rotating auger and other rotating components of the drill

Establish a system of responsibility for activities such as tightening bolts, installing and removing auger fork, etc

Only use approved components

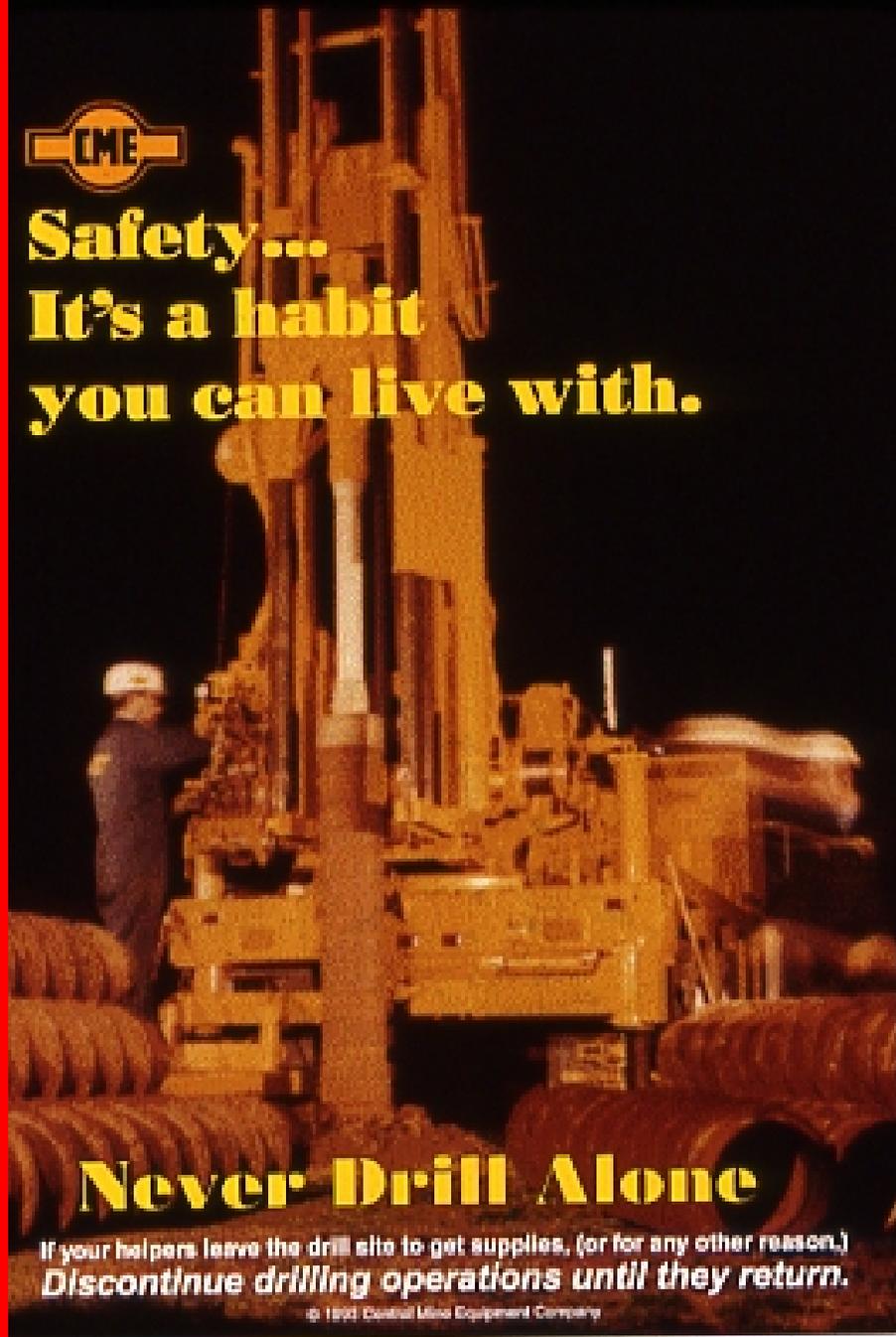
Never use hands or feet to remove auger cuttings

Do not wear loose fitting clothing

Never Drill Alone



**Safety...  
It's a habit  
you can live with.**



**Never Drill Alone**

*If your helpers leave the drill site to get supplies, (or for any other reason,) Discontinue drilling operations until they return.*

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# Transporting a Drill

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# Transporting a Drill

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Only allow the proper licensed person to move vehicle



# Transporting a Drill

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Only allow the proper licensed person to move vehicle

Know the travel height, width, length, and weight



# Transporting a Drill

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Only allow the proper licensed person to move vehicle

Know the travel height, width, length, and weight

Know the DOT regulations



# Transporting a Drill

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Know the travel height, width, length, and weight

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No distractions, cell phone calls, or texting



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Keep the cab of vehicle clean



# Transporting a Drill

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Only allow the proper licensed person to move vehicle

Know the travel height, width, length, and weight

Know the DOT regulations

No distractions, cell phone calls, or texting

Keep the cab of vehicle clean

Never move drill with mast in raised position



# Transporting a Drill

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Only allow the proper licensed person to move vehicle

Know the travel height, width, length, and weight

Know the DOT regulations

No distractions, cell phone calls, or texting

Keep the cab of vehicle clean

Never move drill with mast in raised position

Perform vehicle inspection prior to moving



# Hoisting

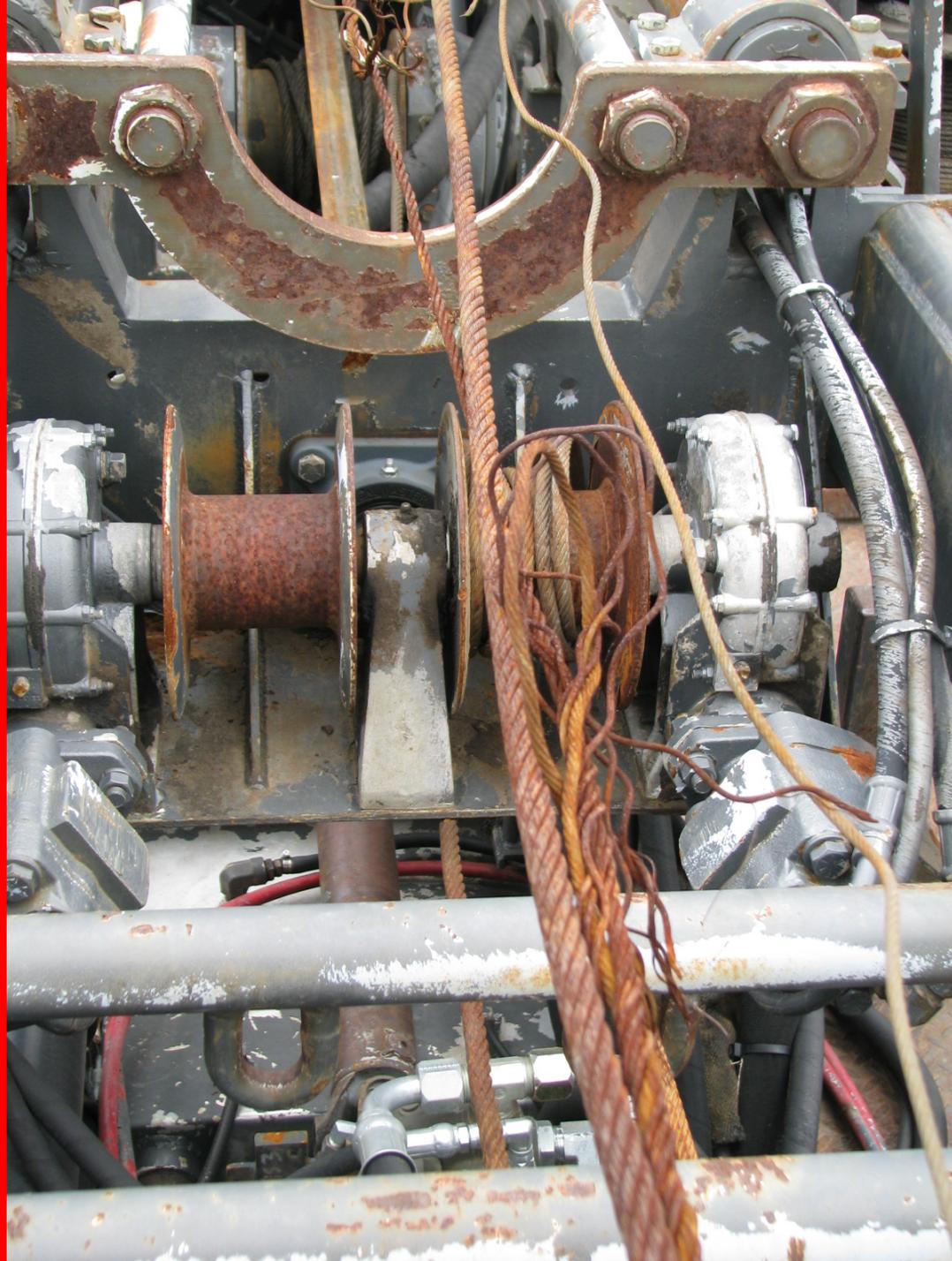
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# Hoisting

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Check condition of equipment weekly prior to hoisting (cables, sheaves, hoist, hooks, etc.) and repair as needed.







# Hoisting

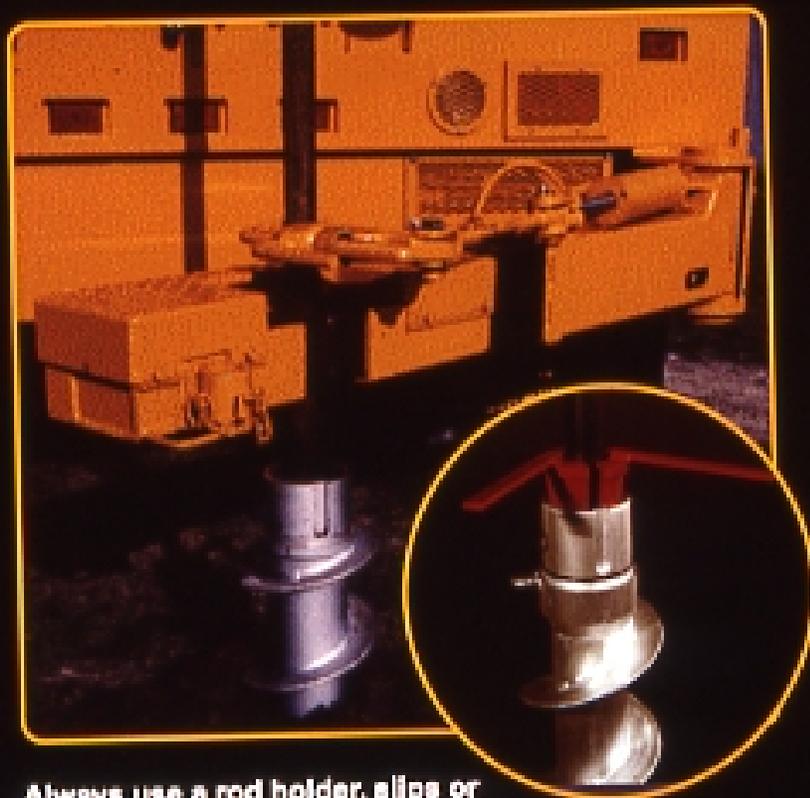
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Check condition of equipment weekly prior to hoisting (cables, sheaves, hoist, hooks, etc.) and repair as needed.

If a rod slipping device is used to hoist drill rods, do not rotate rods or drill through device. Do not hoist more than 1 foot of the drill column above the top of mast. Do not use rod column with loose tool joints while slipping. Do not make or tighten tool joints while rod column is being supported with slipping device. If drill rods slip back into hole do not attempt to break the fall of the rods.



**Never engage rotation while using slip rings.**



**Always use a rod holder, slips or similar device to suspend drilling tools in the hole while making or breaking connections.**



**Safety...  
It's a habit you can live with.**

© 1994 CENTRAL MINE EQUIPMENT COMPANY



# Hoisting

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Only hoist loads less than capacity of hoist and hardware. Get approval of manufacturer for increasing capacity.



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Use hoists for the purpose of the design.



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Use hoists for the purpose of the design.

Do not attempt to pull stuck tooling with leveling jacks.



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Only hoist loads less than capacity of hoist and hardware. Get approval of manufacturer for increasing capacity.

Use hoists for the purpose of the design.

Do not attempt to pull stuck tooling with leveling jacks.

Properly train personnel in operation of hoisting, slipping devices, and catheads.



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Relating Fatalities To Safety Guide

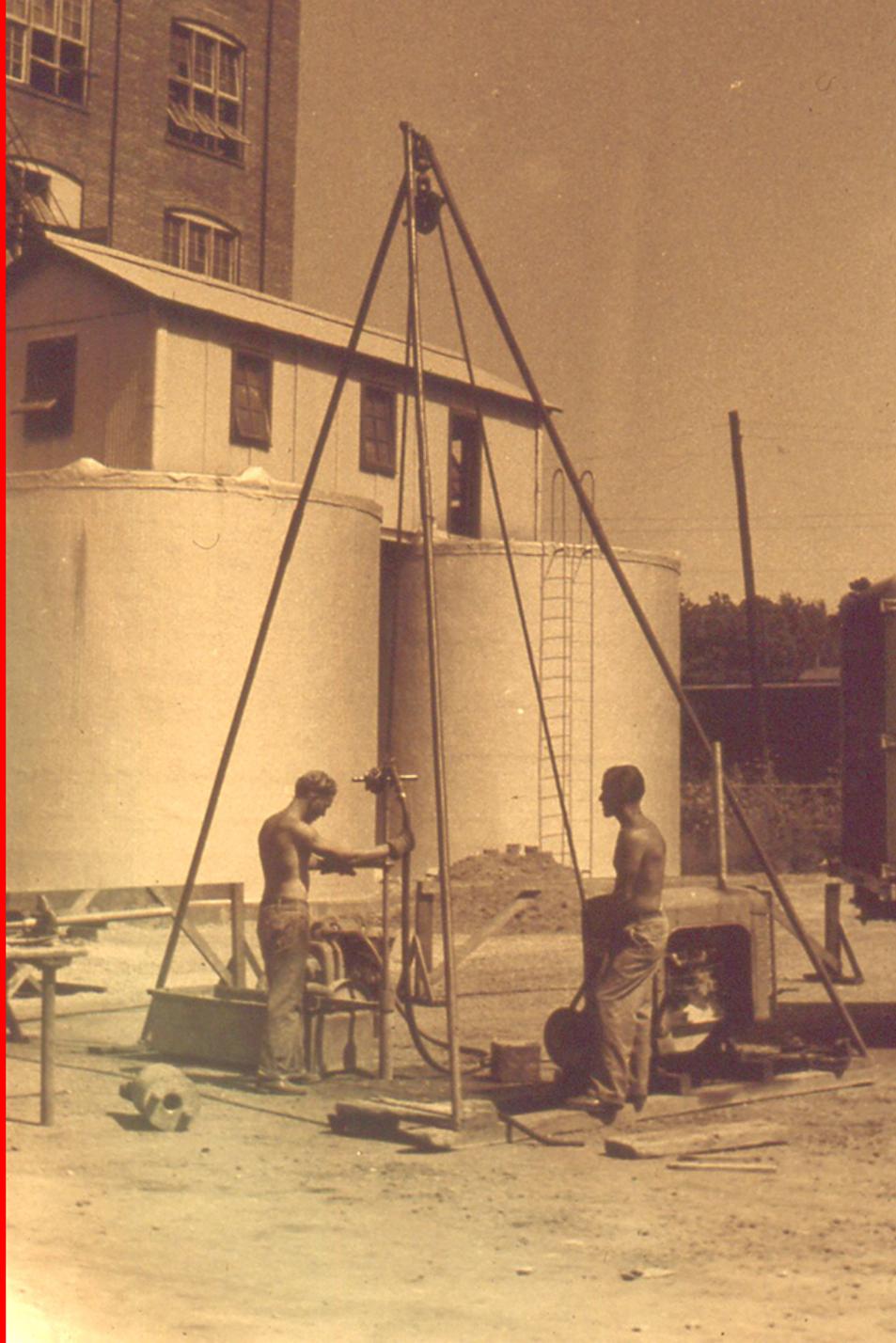
What Has Changed?



# Drilling Safety in 2018

## What Has Changed

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# Drilling Safety in 2018

What Has Changed

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- **Seat Belts are Mandatory**



# Drilling Safety in 2018

What Has Changed

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- Seat Belts are Mandatory
- Smoking is Restricted



# Drilling Safety in 2018

## What Has Changed

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- Seat Belts are Mandatory
- Smoking is Restricted
- Security is Tighter



# Drilling Safety in 2018

## What Has Changed

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- Seat Belts are Mandatory
- Smoking is Restricted
- Security is Tighter
- Gas is Higher



# Drilling Safety in 2018

What Has Changed

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- Seat Belts are Mandatory
- Smoking is Restricted
- Security is Tighter
- Gas is Higher
- Drill Safety is a Little Better



# Drilling Safety in 2018

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Relating Fatalities To Safety Guide

What Has Changed?

How Do We Grade Ourselves?



# Drilling Safety in 2018

## Grade

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# Drilling Safety in 2018

## Grade

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**A-**



# Conclusion and Questions

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