

# **Annual Refresher Training Topics For Small Borrow & Shale Pits**

---

DMME

Division of Mineral Mining  
2012

# Topics For Discussion

---

- ☐ Ground control
    - Pit banks/walls/rims
    - Roads and berms
  - ☐ Beginning of shift inspections
  - ☐ Pre-operational equipment inspections
  - ☐ Mobile equipment
  - ☐ Reporting accidents
-

# Pit Rims And Walls

- Rims shall be stripped of loose clay/topsoil material and trees for at least 10 feet back from the edge and material beyond 10 feet sloped to an angle at which it will remain stable.
- All pit banks must be kept sloped to a safe angle (at least 2:1). No vertical or under-cut banks are allowed.
- Pit walls of hard (rock) material, while not sloped, must be scaled (cleaned) of loose rock that might fall and create a hazard.



**Sloping and scaling of walls/banks must be part of the daily operation**



# Height Of Pit Banks/Walls

➤ The size of the equipment available for trimming, scaling and sloping is a key factor in bank or wall height. Tall banks must be split into separate benches so they can be adequately sloped and maintained with on-site equipment.

*Was this considered in these examples?*



# Maintain Safe Roads & Berms

---

➤ Benches (with roads and berms) shall be wide enough to allow safe operation and passage of equipment. Rule of thumb for roads; at least 2 times the width of the largest vehicle, single lane, and 3.5 times for dual lane traffic.

➤ Berms are used to keep people and equipment away from unstable/unsafe areas. Roads must have berms where there is a danger of overturning.

➤ Roadway berms must be big enough to “restrain” the largest piece of equipment working in the area.

---



# Beginning of Shift Inspections

---

- ❑ If three or more people are working, a documented beginning of shift inspection must be performed by a BMME certified foreman.
- ❑ If only one or two are working, inspection of the work area prior to starting work is still required.
- ❑ What are we looking for?
  - Ground Control is the big issue:
    - ❑ Wall & bank stability
    - ❑ Roads & berms adequate
    - ❑ Damage from heavy rains
    - ❑ Check the area from all angles; top of the bank and the pit floor. Look for changes since your last inspection



---

**Hazardous conditions must be repaired or the area posted and barricaded**



# Pre-operational Equipment Inspections

- ❑ Regardless of how many people are working, each piece of equipment must be inspected by the equipment operator prior to beginning work.
- ❑ What are we looking for?
  - Check all safety equipment and functions:
    - ❑ Horn & backup alarm
    - ❑ Brakes (parking & emergency too!)
    - ❑ Seat belt, cab glass
    - ❑ Fire extinguisher
    - ❑ Steering and other components for function and wear

PRE-SHIFT SAFETY CHECKLIST

Note: (fill out this sheet before starting shift)

JOB \_\_\_\_\_ DATE \_\_\_\_\_

EQUIPMENT TYPE \_\_\_\_\_ SHIFT NO. \_\_\_\_\_

EQUIPMENT NUMBER \_\_\_\_\_

CODES: O-K ☒ REPAIRS MADE ☐ REPAIRS REQUIRED ☒

	Safe	Unsafe
Safe to Operate?		
Back up Alarm		
Brakes: Foot		
Brakes: Parking		
Fire Extinguisher		
Lights		
Horn		
Windshield Wipers		
Glass		
Grab-rails		
Steps		
Safety Guards		
Mirrors		
Seat Belts		
Tires-Wheels		
Steering		
Oil Level		
Water Level		
Winch Mechanism		
Hose Mechanism		
Check for hydraulic leaks		

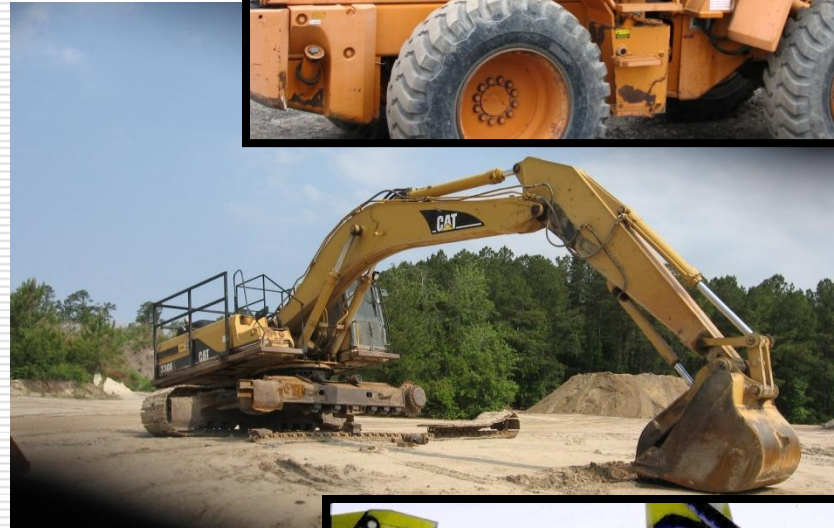
Remarks: \_\_\_\_\_

**Defects (safety hazards) found must be repaired before operation**

# Mobile Equipment

- ❑ Must be maintained to manufacturer's specifications:
  - Lights, horns, railing, ladders, steps, and all other components, regardless of use.
- ❑ Operate, service and repair as recommended by the manufacturer:
  - Operate within specifications and design.
  - Proper tools and procedures.
  - Block and lift as recommended.

**Do not  
depend on  
hydraulics  
for support,  
block and  
chock it!!**



**Lock (remove key) and tag-out equipment not to be used!!**



# Reporting Accidents

---



- ❑ Accidents resulting in death or “serious personal injury” (admitted to the hospital for 24 hours or more) must be reported to DMM by the quickest available means.
- ❑ The accident scene, and equipment, must be kept undisturbed until the mine inspector has completed an investigation and released it.

---

**You have not reported until you speak directly with DMM personnel!!**