### 1.1 PURPOSE

1.1.1 The purpose of this policy is to ensure all TERRY R PITT CONSTRUCTION employees know and understand the safe operating procedures for the safe operation and maintenance of heavy equipment. Improper procedures used by our employees can cause injury, disability, or death. By outlining and following safe operating procedures for use of heavy equipment, we learn to prevent injury and safeguard ourselves and our coworkers.

#### 1.2 GENERAL SAFETY FOR HEAVY EQUIPMENT

- 1.2.1 Only trained and authorized operators will be permitted to operate the designated equipment.
- 1.2.2 Personal protective equipment is mandatory and may include the following:



- 1.2.3 Check and mark the area for underground cables, gas lines, and water mains.
- 1.2.4 Know work area clearances watch for overhead or underground objects, holes, drop-offs, and partially hidden obstacles and wires.
- 1.2.5 Pre-start/Walk around inspection (performed prior to use to verify equipment is in a safe condition):
  - 1.2.5.1 Check for loose or worn parts and repair or replace immediately.
  - 1.2.5.2 Check all fluid/coolant levels.
    - 1.2.5.2.1 Open the radiator cap only when the engine is cooled.
  - 1.2.5.3 Inspect hydraulic line connectors and hoses for leaks before applying pressure to the system. Use paper or cardboard, not your hands, to search for leaks.

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- 1.2.5.3.1 Hydraulic fluid escaping under pressure can penetrate skin and cause serious bodily harm.
- 1.2.5.4 Check tires for cuts, bulges, irregularities, abnormal wear, and proper inflation.
- 1.2.5.5 A fire extinguisher will be mounted in the cab.
- 1.2.5.6 A first aid kit will be onsite.
- 1.2.6 Do not get on or off a machine that is in motion.
- 1.2.7 Maintain a 3-point contact with the steps and handrails while getting on/into the machine do not use the controls or steering wheel as a handhold.
- 1.2.8 Do not operate the machine with wet, greasy, or muddy hands or shoes.
- 1.2.9 Always have a running machine in a well-ventilated area.
- 1.2.10 Smoking is prohibited at all times while operating equipment.
- 1.2.11 Always maintain the required distance between equipment and electrical power lines.
- 1.2.12 Always locate underground gas and power lines before digging. Contact with utilities can cause serious accidents and property damage.
- 1.2.13 Faster equipment speeds give you less time to get out of the way larger equipment often has more blind spot areas where the operator's vision is obstructed and heavier equipment is less forgiving when it hits you.
- 1.2.14 Seat belts will be provided and used when operating any of the above equipment.
- 1.2.15 Pneumatic-tired earthmoving haulage equipment whose maximum speed exceeds 15 mph will be equipped with fenders on all wheels.
- 1.2.16 All of the above vehicles must be equipped with rollover protective structures.
- 1.2.17 All of the above vehicles will be equipped with a horn, which will be operated as needed when the vehicle is moving in either direction. The horn will be maintained in an operative condition.
- 1.2.18 All mobile equipment utilized by employees will be equipped with a back-up alarm or signal. Earthmoving equipment which has an obstructed view to the rear and is to be used in reverse gear, will have in operation a reverse signal alarm distinguishable from the surrounding noise level or will have an employee signal that it is safe to back up.

1.2.19 A *Daily Inspection Report* must be done by operators on heavy equipment before use on each shift. Approval of the supervisor is required prior to commencing work if any deficiencies are noted.

### 1.3 MACHINE MAINTENANCE

- 1.3.1 When servicing equipment, fasten a *Do Not Operate* tag on the steering wheel. Review Lockout/Tagout procedures prior to servicing any equipment.
- 1.3.2 Ensure the cab area is clean and free of debris and tools.
- 1.3.3 Clean windshield, mirrors, and lights.
- 1.3.4 Remove all oil, grease or mud, and snow from grab irons, handrails, steps, pedals, and floor to prevent slips and falls.
- 1.3.5 Remove or secure any loose items such as tools, chains, or lunch boxes from the cab.

## 1.4 STARTING AND TESTING

- **1.4.1** Fasten your seat belt and adjust the seat prior to starting. Employees operating mobile equipment are required to wear a seat belt when starting and using the mobile equipment if the mobile equipment is equipped with a seat belt.
- 1.4.2 Controls should be in neutral and the parking brake set before starting engine.
- 1.4.3 Start the engine only from the operator's seat.
- 1.4.4 Warn personnel in the area that you are starting the engine by beeping horn. First directional move must be forward.
- 1.4.5 Check all gauges, light, instruments, and warning devices to assure that they are functioning properly and the readings are within normal range.
- 1.4.6 Test steering right and left.
- 1.4.7 Test brakes against ground speed to be certain there is no malfunction.
- 1.4.8 Ensure all implement controls are operating properly.

### 1.5 MACHINE OPERATION

- 1.5.1 Acquaint yourself with the controls before operating the machine.
- 1.5.2 Only the operator is permitted to ride on the machine.

- 1.5.3 While backing up use extra care and sound the horn to clear the area.
- 1.5.4 If a malfunction is observed, *Do Not Operate* until the proper repairs have been made.
- 1.5.5 Drive at speeds compatible with working conditions.
- 1.5.6 Do not coast downhill. Select a gear that will prevent excessive speed when going downhill. Do not park on a steep incline.
- 1.5.7 Know the stopping distance at any given working speed.
- 1.5.8 Do not permit anyone to stand or pass under the bucket or lift arms.
- 1.5.9 Follow the manufacturer's load capacity limits. Identification plates are attached to all machines. Operators of mobile equipment shall not load mobile equipment beyond the established load limits.
- 1.5.10 If the machine is stuck, back it out, apply brake and get help.
- 1.5.11 Do not make mechanical adjustments while the unit is in motion.
- 1.5.12 Always follow the manufacturer's recommendations for pulling or towing.
- 1.5.13 Lower all the hydraulic equipment before shutting down or getting off the machine.
- 1.5.14 During snow removal, be alert for any obstructions covered by snow

#### 1.6 POWER TAKE OFF (PTO) OPERATION

- 1.6.1 Shut off the engine and wait until the PTO stops completely before getting off, disconnecting, or servicing the PTO unit.
- 1.6.2 Wear snug fitting clothing when operating the power take-off or when near rotating equipment.
- 1.6.3 When operating stationary PTO equipment, always apply the parking brake and block the rear wheels front and back to prevent any unnecessary movement.
- 1.6.4 PTO shields are mandatory on all PTO driven equipment.

#### 1.7 REFUELING

- 1.7.1 Ensure the fueling area is well ventilated.
- 1.7.2 Do not smoke while refueling. Keep open flames and sparks away from area.
- 1.7.3 Ground the funnel or fuel nozzle against the filler neck to avoid sparks when refueling.

- 1.7.4 Do not use gasoline or diesel fuel for cleaning parts.
- 1.7.5 Know where the fire extinguishers are located.

### 1.8 ROAD RULES

- 1.8.1 When turning, use hand or turn signals.
- 1.8.2 Obey all traffic regulations. Know local traffic laws regarding lights, warning signs, load limits, and slow-moving equipment on highways/roadways.
- 1.8.3 When backing up traffic, pull over and allow the vehicles to pass.
- 1.8.4 Park on level ground.
- 1.8.5 When parking on a grade, block the wheels and set the parking brakes.
- 1.8.6 When parking, lower all loader, buckets, hydraulics to the ground.

### 1.9 BACKHOE

- **1.9.1** Operators will be trained in the operation of a backhoe.
- 1.9.2 Do not jump on or off the machine.
- 1.9.3 Equipment must be equipped with a reverse signal alarm.
- 1.9.4 Know the working range of the machine.
- 1.9.5 Be sure attachment or load does not catch on obstructions when lifting or swinging.
- 1.9.6 When lifting a load, do not lift, swing, or stop unnecessarily fast.
- 1.9.7 Be sure everyone is in the clear before swinging or moving in any direction. Never swing or position attachment or load over personnel or vehicle cabs.
- 1.9.8 Never allow personnel to walk or work under any part of the machine or load while the machine is operating.
- 1.9.9 Never allow anyone to ride the attachment or the load. This is an extremely dangerous practice.
- 1.9.10 Do not load a truck unless the driver is in a safe place. Then, load the truck from the rear or side.
- 1.9.11 Check horn and backup alarm to see that they are working.

- 1.9.12 Never exceed the lifting capacity of the machine. Stay within the lifting limits shown on the *Load Rating Chart*. Remember you may be able to lift the load in close, at ground level, but as the load radius and elevation change, the lifting capacity of the excavator may decrease.
- 1.9.13 Keep the machine well back from the edge of an excavation. Avoid undercutting the machine. If necessary, provide adequate shoring to prevent the machine from falling into the excavation.
- 1.9.14 Level off the work area if possible.
- 1.9.15 Avoid swinging or extending the bucket farther than necessary in a downhill direction. This will reduce the stability of the machine.
- 1.9.16 When working with bucket on the uphill side, the excavator may tip over if the slope is too steep.
- 1.9.17 Avoid working with the tracks across the slope, as this reduces stability and increases the tendency for the machine to slide.
- 1.9.18 Always be sure that slings or chains used to lift the load are of adequate strength and that they are in good condition.
  - 1.9.19 Watch your boom clearance at all times.
  - 1.9.20 Turn off the engine and allow the machine to cool before working on the machine. Most fluids on the backhoe are hot enough to cause severe burns at normal operating temperatures.

#### 1.10 DOZERS

- 1.10.1 Operate the controls only with the engine running.
- 1.10.2 Riders are not allowed on equipment without an additional seat, seat belt, and rollover protection.
- 1.10.3 The operator must be sure that no one will be endangered before moving the machine.
- 1.10.4 Check horn and backup alarm to see that they are working.
- 1.10.5 Report any needed repairs noted during operation.
- 1.10.6 Stay a safe distance from the edge of cliffs, overhangs, and slide areas.
- 1.10.7 If the machine begins to sideslip on a grade, immediately dispose of the load and turn the machine downhill.
- 1.10.8 Be careful to avoid the condition which could lead to tipping when working on hills, banks, or slopes and when crossing ditches, ridges, or other obstructions.

- 1.10.9 Work up and down slopes, rather than sideways, whenever possible.
- 1.10.10 Keep the machine under control and do not work it over its capacity.
- 1.10.11 Be sure hitch points and the towing device are adequate.
- 1.10.12 Never straddle a cable, wire rope, or similar device nor allow others to do so.

#### 1.11 LOADERS

- 1.11.1 This is a one-person machine. No riders allowed.
- 1.11.2 Know the pinch points and wrap points on the loader.
- 1.11.3 Operate at a speed consistent with working conditions, visibility, and terrain.
- 1.11.4 Ensure loader has an adequate rear counterweight.
- 2721.11.5 Check horn and backup alarm to see that they are working.
  - 1.11.6 When crossing railroad tracks, ditches, ridges, or curbs reduce speed and cross at an angle.
  - 1.11.7 Carry loaded buckets as close to the ground as possible. The further a loaded bucket is from the ground the more unstable the loader becomes.
  - 1.11.8 Use extreme caution when operating a loader on a side slope. Slow down and carry the bucket, loaded or empty, as close to the ground as possible.
  - 1.11.9 Stay in gear when traveling downhill this will help control speed.
  - 1.11.10 Never move a load above the heads of other workers.
  - 1.11.11 When back filling, use extreme caution. The weight of the material plus the weight of the machine could cause the new construction to collapse.
  - 1.11.12 Keep work area level; avoid developing ruts by occasionally back dragging the bucket to smooth the surface.

#### 1.12 ROAD GRADER

- 1.12.1 Do not permit riders in or on the grader. Grader is a one-person piece of equipment.
- 1.12.2 Do not dismount grader with engine running lower all attachments and apply parking brake.
- 1.12.3 Before operating the grader, ensure it is properly equipped. Consult your supervisor for details.

- 1.12.4 Before operating the grader, test the brakes, transmission, clutch, and controls.
- 1.12.5 Before backing up, use extra care to ensure persons and vehicles are clear of the grader.
- 1.12.6 Check horn and backup alarm to see that they are working.
- 1.12.7 Use hand signals required for particular jobs and know who has the responsibility for signaling.
- 1.12.8 Select a gear that will prevent excessive speed when going downhill. Do not coast downhill.
- 1.12.9 Note and avoid all hazards and obstructions such as overhangs, ledges, slide areas, electrical lines, underground cables, water mains, or gas lines.
- 1.12.10 Watch for bystanders and never allow anyone to be under or to reach into the grader and its attachments while operating.
- 1.12.11 Check the local traffic laws for correct traveling requirements. If necessary, pull over and allow traffic to pass.
- 1.12.12 When working near traffic areas or at night, use extra care. Use precautions, such as flares or reflectors, cones, red flags or red lights, barricades, flashing lights, and flagmen.
- 1.12.13 Do not operate the grader in areas where volatile gases, dust, and combustibles may be present.
- 1.12.14 Ensure the grader is properly equipped for grading in dry or forested areas.
- 1.12.15 Avoid lubrication or mechanical adjustments with the grader in motion or the engine operating.
- 1.12.16 Keep your head, body, limbs, feet, and hands away from all moving parts.
- 1.12.17 Match speed of the vehicle to job conditions.
- 1.12.18 Know your stopping distance at any given speed.
- 1.12.19 Use caution when crossing side hills, ridges, ditches, and other obstructions.
- 1.12.20 Keep close to inside bank when working on a side, hill, road, or cut. Extend the blade to material near outer edge.
- 1.12.21 Use extreme care to avoid tipping when working on hills, banks, or slopes.
- 1.12.22 Cross obstacles at an angle and at slow speed. Be alert for sudden movement of machine when going over center of obstacle.

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### 1.13 SCRAPERS

- 1.13.1 Do not operate the scraper unless you have been trained.
- 1.13.2 Do not try to climb on or off the machine when carrying tools or supplies.
- 1.13.3 Do not jump on or off the machine.
- 1.13.4 Check for proper operation of controls and protective devices while moving slowly in an open area.
- 1.13.5 Operate the machine only while seated.
- 1.13.6 Operate the controls only with the engine running.
- 1.13.7 Check horn and backup alarm to see that they are working.
- 1.13.8 Riders are not allowed on equipment without an additional seat, seat belt, and rollover protection.
- 1.13.9 Carry bowl close to the ground, approximately 15 in above ground level.
  - 1.13.10 If the brakes do not hold the load, drop or drag the bowl or make an emergency stop.
  - 1.13.11 Avoid sharp downhill turns.
  - 1.13.12 Stay a safe distance from the edge of cliffs, overhangs, and slide areas.
  - 1.13.13 If the machine begins to sideslip on a grade, lower the bowl and bring the machine to a safe stop.
  - 1.13.14 Be careful to avoid the condition which could lead to tipping when working on hills, banks, or slopes and when crossing ditches, ridges, or other obstructions.
  - 1.13.15 Work up and down slopes, rather than sideways, whenever possible.
  - 1.13.16 Keep the machine under control and do not work it over its capacity.
  - 1.13.17 Park on a level surface. If necessary to park on a grade, block the machine. Lower bowl to the ground and apply slight down pressure.

#### 1.14 SKIDSTEER

- 1.14.1 Do not operate skidsteer without training on proper use and maintenance of equipment. Review manual and refer to it when necessary.
- 1.14.2 Stay seated with seatbelt on and restraining bar in place when working the controls.
- 1.14.3 Always look in the direction of travel.

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- 1.14.4 Check to see that counterweights as recommended by the manufacturer are in place. This is very important as improperly balanced skidsteer loaders are easily upset.
- 1.14.5 Clean steps, pedals, and floor of any slippery substances.
- 1.14.6 Clear the driving compartment for loose items that might interfere with the controls.
- 1.14.7 Check the work area for hazards such as holes, soft spots, and obstructions. Check overhead for utility lines, doorway clearances, or other obstructions.
- 1.14.8 Mount the machine wearing clean, dry shoes using the grab bars or handrails provided.
- 1.14.9 Adjust the seat, fasten the seat belt, set the brake, and place transmission in park or neutral before cranking the engine.
- 1.14.10 Visually check for the presence of others in the area and warn them away.
- 1.14.11 If the machine is garaged, leave the door or some windows open for ventilating the exhaust.
  - 1.14.12 Start the engine and check all controls to see that they are functioning properly.
  - 1.14.13 Check horn and backup alarm to see that they are working.
  - 1.14.14 Operate with caution on uneven surfaces. Avoid steep slopes completely.
  - 1.14.15 Carry the load as low as possible. Avoid sharp turns and slopes with a raised load.
  - 1.14.16 Travel straight up or down, with the heavy end of the machine pointed uphill.
  - 1.14.17 Operate with extreme caution near areas with sharp drop-offs.
  - 1.14.18 Do not undercut banks or materials that are piled high, to avoid cave-ins or falling of material.
  - 1.14.19 Never leave the machine without first lowering the bucket, setting the parking brake, and placing the shift in park or neutral. Dismount the machine carefully. Do not jump out of the loader.
  - 1.14.20 At the end of the shift, lock the ignition and remove the key.

#### 1.15 TRUCKS

1.15.1 Truck drivers will be properly and thoroughly trained before attempting to do any work with or on any type of truck.

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- 1.15.2 Our motor vehicle policy, as well as state and federal regulations, prohibit the operation of commercial motor vehicles by individuals who do not have the proper training and license. Do not attempt to operate any dump truck unless you have the proper license and training.
- 1.15.3 Thoroughly inspect the truck for any defects that may inhibit safe operation of the vehicle.
- 1.15.4 DOT regulations require an inspection form each day before placing the truck into operation. This form is an excellent tool to help the operator remember to check all necessary items.
- 1.15.5 Always use the steps and grab irons and face the vehicle when getting in or out of the truck.
- 1.15.6 Place the gearshift into neutral and set the parking brake before starting the engine.
- 1.15.7 Allow the engine to reach operating temperature and the air pressure to build to operating pressure before placing the truck into motion.
- 1.15.8 Carefully check the area around the truck before placing it into motion. Objects or people that are very close to the truck may not be visible from the driver's seat.
- 1.15.9 Always make sure that your seatbelt is properly fastened before driving the truck.
- 1.15.10 Allow adequate stopping distance between the truck and the vehicles in front of it.
- 1.15.11 Check the area around the truck for obstructions (tree limbs, overhead wires, etc.) before raising the dump box. Make sure that the spreader chains aren't set if you intend to dump in a pile.
- 1.15.12 Always try to be on a level surface when you raise the dump box. As the box raises the truck's center of gravity goes up and the truck becomes less stable and more apt to tip over. If you must dump on a slope, place the truck so that it faces straight up, or down the slope. Do not try to raise the box with the truck parked parallel with the slope. Remember that a dump truck is much more apt to tip over (or run into overhead obstructions) when spreading material then it is when dumping in a pile.
- 1.15.13 Never work under a raised box unless the box is adequately supported by a prop rod or cribbing. Do not rely on the truck's hydraulic system to hold the box up while you work under it.

#### 1.16 TRAINING

- 1.16.1 Only adequately trained and qualified employees who have the appropriate experience will be permitted to operate heavy mobile equipment. In addition to the requirements of experience and training, operators will be authorized by TERRY R PITT CONSTRUCTION to operate equipment.
- 1.16.2 Employees will be required to attend:
  - 1.16.2.1 A general awareness class

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1.16.2.2 Equipment specific training:

- 1.16.2.2.1 Be instructed by a qualified person in the intended purpose and function of each of the controls.
- 1.16.2.2.2 Read and understand the manufacturer's operating instructions and user's safety rules or be trained by a qualified person on the contents of the manufacturer's operating instructions and user safety rules.
- 1.16.2.2.3 Understand by reading or having a qualified person explain all decals, warnings, and instructions displayed on and in the equipment.
- 1.16.2.3 Operators currently operating heavy equipment may be evaluated to verify operating skills to satisfy equipment specific training.
- 1.16.3 Management responsible for heavy equipment operations must attend a heavy equipment responsibility and safety awareness class.

