



ADVANCING WATER

Construction Vehicle Movement Plan



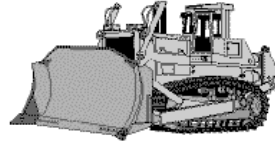
Transfer and Feed Water Pipelines

Garney Project #1115

Equipment Operations



Reference: 29 CFR 1926.600



Purpose:

Equipment plays a vital role in production on a construction project. However with its rewards also comes the inherent danger of moving vehicles for site workers. Garney has established the following program to serve as guidelines to prevent unnecessary vehicles incidents on its projects.

1926.600 – General requirements for Equipment

1. Equipment operators must possess verified experience (use the equipment experience verification form on the Safety SharePoint site) and/or received Garney specific training for the piece of equipment to be operated.
2. The site superintendent is responsible for compiling a list of names of those persons who are designated / authorized to operate equipment on a Garney project. The list of equipment and names shall be posted in the project office. **There will be no exception, and violators of this policy shall be subject to disciplinary action up to and including termination.**
3. All equipment left unattended at night, adjacent to a highway or active construction site shall be equipped with appropriate warning devices as required by the State's applicable DOT requirements.
4. Heavy machinery, equipment, or parts thereof, which are suspended or held aloft by use of slings, hoists, or jacks shall be substantially blocked or cribbed to prevent falling or shifting before employees are permitted to work under or between them. Bulldozer and scraper blades, end-loader buckets, dump bodies, and similar equipment, shall be either fully lowered or blocked when being repaired or when not in use. All controls shall be in a neutral position, with the motors stopped and brakes set, unless work being performed requires otherwise.
5. Equipment cabs shall have safety glass or equivalent glass that does not distort the driver's vision.
6. When equipment is parked, the parking brake shall be set; on an incline, the wheels shall also be locked.
7. For cranes, derricks, and hoist see Section 18n – Cranes & Hoisting Operations section of the manual.
8. Only trained and authorized workers shall be allowed to operate powered industrial trucks and forklifts.
9. Equipment used for lifting and handling (other than cranes hoist, elevators, derricks and conveyors) shall meet applicable requirements of design, construction, stability, testing maintenance, inspection and operation as specified in ANSI B56.1-1969 'Safety Standards for Powered Industrial Trucks'.
10. A motor vehicle and bidirectional machine in which the rear view is obstructed shall have a reverse signal alarm audible above surrounding background noise or be backed up only when an observer signals it is safe to do so.

11. The following guidelines shall be adhered to while equipment is working or being moved in the vicinity of power lines or energized transmitters, except where the lines have been de-energized and visibly grounded at the site.

VOLTAGE	MINIMUM CLEARANCE (FEET)
750 – 50,000	10
50,000 – 75,000	11
75,000 – 125,000	13
125,000 – 175,000	15
175,000 – 250,000	17
250,000 – 370,000	21
370,000 – 550,000	27
550,000 – 1,000,000	42

- a. All overhead power lines shall be assumed to be energized unless and until the person owning the line indicates that the line is de-energized and it has been visibly grounded at the project site.
 - b. A designated spotter shall be used for all operations where working around or passing under an overhead power line. The spotter is responsible for observing clearance of the equipment and must give a timely warning in the event that operator must cease all movement.
12. Any piece of equipment that is in need of repair or any piece of equipment with defective safety equipment/alarms shall be removed from service until it is repaired.

1926.601 – Motor Vehicles

1. All vehicles shall have a service, emergency, and parking brake system; these systems may use the same components. All braking systems shall be in good operating condition.
2. When visibility conditions warrant additional light, vehicles shall be equipped with at least two headlights and two taillights. Vehicles shall have operable brake lights at all times.
3. Tools and material that are carried in the same compartment with workers shall be secured.
4. Vehicles with cabs shall have windshields and powered wipers. Cracked and broken windshield glass shall be replaced. Vehicles that operate in fog or frost shall have defogging and defrosting devices.
5. Vehicles whose payload is loaded by a crane, power shovel, loader, or similar equipment shall have a cab shield and/or canopy adequately to protect the operator.
6. All equipment with an obstructed view to the rear shall have an audible alarm to signal the vehicle is travelling in reverse. The audible alarm shall be above that of the surrounding noise.
7. Only persons seated in a designated seat may travel in a piece of equipment or motor vehicle.
8. All persons working inside of a piece of equipment with a Rollover Protection System (ROPS) shall have the supplied seatbelt fastened at all times while in the piece of equipment.
9. All equipment shall have a documented inspection completed by the operator at the beginning (Daily Equipment Inspection sheet is available on the Safety SharePoint site).



1926.602– Earth Moving Equipment

1. Earth-moving equipment includes scrapers, loaders, crawlers or wheel tractors, excavators, bulldozers, off-highway trucks, graders, agricultural and industrial tractors, and similar equipment.
2. All equipment shall be maintained in safe working condition and shall be appropriate and adequate for the intended use.

3. Equipment shall be operated only by qualified and authorized personnel. Equipment repairs are to be performed only by qualified personnel.
4. Equipment operator and truck drivers shall make a pre-shift walk-around safety inspection of their equipment, and any conditions that affect safe operation shall be corrected before further use.
5. Equipment shall not be operated unless all required guards and safety devices are in place and functioning.
6. Careless, reckless or otherwise unsafe operation or use of equipment shall be grounds for dismissal.
7. Seat belts shall be provided on all earth-moving equipment; they shall be used at all times by all operators of such equipment.
8. Construction equipment or vehicles shall not be moved on access roads or grades unless the road or grade has been constructed and maintained to safely accommodate such equipment as required by the State's applicable DOT requirements.
9. When necessary, an emergency access ramp or berm shall be constructed to restrain runaway vehicles.
10. Brakes on all earth-moving equipment detailed under 29 CFR.602 (a)(1) shall have service braking systems capable of stopping and holding the equipment while fully loaded as specified in the society of *Automotive Engineers Recommended Practices*.
11. Before performing any service or repair work, all equipment shall be stopped and positively secured against movement or operation, unless it is designed to be serviced while running, in accordance with the manufacturer's instructions.
12. When equipment is serviced or repaired, the operator shall dismount until the service or repair is completed and then makes a complete walk-around safety check before remounting.
13. All bi-directional earthmoving equipment with an obstructed view to the rear shall be equipped with an automatic back-up alarm which can be heard above and distinguished from the surrounding noise level. Subcontractors and suppliers' delivery trucks (such as concrete trucks) must have a signalman in full view prior to, and during, any reverse motion operation on the project.
14. All off-highway earthmoving equipment and trucks such as loaders, dozers, scrapers, motor graders, rock trucks, tractors, rollers and compactors shall be equipped with rollover protective structures (ROPS) and seat belts, in accordance with applicable regulations (OSHA, MSHA, USBR, COE). Seat belts shall be used by the operators of all equipment provided with ROPS.
15. Mobile equipment shall not be left unattended unless parked securely to prevent movement, with all ground engaging tools lowered to the ground, brakes set and the engine off.
16. Equipment parked at night shall be lighted, barricaded or otherwise clearly marked where exposed to traffic as required by the State's applicable DOT requirements.
17. Personnel shall not be transported or ride on equipment or vehicles which are not designed for that purpose.
18. When fueling equipment or vehicles with gasoline or liquefied petroleum gas (LPG) the engine shall be shut down.
19. Haul roads shall be designed, constructed and maintained for safe operation consistent with the type of haulage equipment in use. Standard traffic control signs shall be used where necessary.
20. Additional precautions are required when operating equipment on streets and roads open to public vehicular traffic. Appropriate warning signs, flagmen, and/or escorts **MUST** be utilized to stop or control the flow of traffic when a piece of equipment must cross or enter an active lane of traffic. Equipment must be inspected before start of operation each morning to determine that it is street legal and as per local DOT requirements.

1926.1000 – Rollover Protection Structures (ROPS) for Material Handling Equipment

1. Roll-over protective structures (ROPS) applies to the following material handling equipment;
 - a. Rubber-tire self-propelled scrapers
 - b. Rubber-tire front end loaders
 - c. Rubber-tire dozers
 - d. Wheel-type agricultural and industrial tractors
 - e. Crawler tractors
 - f. Crawler type loaders
 - g. Motor graders (with or without attachments.)
2. Roll-over protective structures and supporting attachments shall meet the minimum performance of 29CFR 1926.1001 and .1002 along with all applicable current standards.
3. Roll-over protection that has been removed shall be remounted with equal quality or better bolts or welding as required for the original mounting.
4. Roll-over protection shall have a label permanently affixed showing the manufacturer or fabricator's name and address, ROPS model number and the machine or equipment make, model or service number that the structure is designed to fit.

Other Vehicle Safety & Warnings

1. Disabled or parked vehicles next to roadways shall be posted or identified with flares, cones, barricades, reflective triangles or other appropriate warning devices as required by the State's applicable DOT requirements.
2. All over-the-road vehicles shall have appropriate DOT approved flare, triangles, or other warning devices available in the vehicle.
3. Motor vehicles used to carry workers shall be provided with secured seats for passengers with seat belts.
4. Truck bed loads being hauled over public roadways where the load material may be a hazard to other vehicles shall be covered with tarps or other material to keep the loads material from flying free per local traffic ordinance.
5. Vehicles and equipment shall display a slow moving traffic identification symbol on vehicles designed to move slowly (25 mph or less) on public roads.

Garney Specific Requirement

1. All equipment left unattended on a project site must be equipped with a Third Party Lock / Anti-Theft device to render the equipment immovable. The purchasing information is available within the Corporate Safety Menu.
2. Cell phones, MP3 players, radios, etc... shall not be used at any time while operating a piece of equipment.

