

2600SEG105

SAFETY STANDARD FOR THE OPERATION OF HEAVY-DUTY LAND MOVING EQUIPMENT

1.0 PURPOSE

This standard establishes guidelines for the duties and responsibilities of the employees, contractors and third parties to inspect maintain in acceptable mechanical conditions and safely operate heavy-duty equipments, belonging to or utilized within the work areas under the responsibility of the Panama Canal Authority (ACP).

2.0 BACKGROUND INFORMATION

The previous guidelines on existing applicable standards were as a rule of thumb, the old Panama Canal Commission (PCC), the ACP and contractors in the past have worked based on the manuals edited by the manufacturers of heavy duty equipments or by basic rules adopted by some contractors.

3.0 SCOPE

This standard applies to all employees, contractors and third parties who operate heavy-duty equipment, except for those who operate cranes, all-wheel steer loaders, hoists, trailers, and dump trucks of an under the (22-cubic-yards load capacity), within the facilities or areas under the responsibility of the ACP.

4.0 LEGAL FOUNDATION

This standard is based on Agreement No.12 of ACP Board of Directors, Risk Control and Occupational Health Regulations, Chapter 1, Article 3; and on the Traffic Regulations of the Republic of Panama, Chapter VI, Article 42.

5.0 DEFINITIONS

5.1 Heavy-Duty Equipment: Within the context of this standard, heavy-duty equipment is the equipment used to move land, including: tractors, bulldozers, backhoes, and dump trucks of over 22 cubic yards loading capacity.

6.0 GENERAL

6.1 A heavy-duty operator shall:

6.1.1 Must be trained and familiarized with operating the kind of equipment that he will operate. Trained on how to use said equipment properly and its limitations before starting the operation. Ensure that its mechanical conditions, load and operation are safe.

6.1.2 Inspect the equipment at the beginning and end of every shift. This includes a visual inspection around it before operating it, and testing the brakes of applicable equipment. The supervisor must be notified immediately of any anomaly found in the event equipment needs to be taken out of service..

6.1.3 Must carry and have appropriate and valid driving license.

6.1.4 Must not operate equipment in unsafe conditions that may endanger life or property.

6.1.5 Must abide by the speed limits established at the work place.

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6.1.6 Use only original seat provided by the manufacturer, use the safety belt and not allow passengers traveling in the cabin or in any other part of the equipment, unless under some exceptional circumstances (see paragraph 6.3.1).

6.1.7 Heavy equipment must have blades, loader buckets, and rippers in the down position on the surface of the ground. Also must place truck wagons in a normal position (in contact with the chassis), each time the equipment is stopped, or at the end of the work day.

6.1.8 Turn off the equipment's engine while getting fuel or regular maintenance work. Make sure that the equipment is not operating and implements and devices are not under load pressure, while under inspection, adjustments or repairs.

6.1.9 Have adequate fire extinguishers, in good conditions, installed and affixed unto all heavy-duty equipments. Below are the types of extinguishers to be used on each type of equipment:

6.1.9.1 Chain or wheel land drills: a 10 lb extinguisher inside the cabin and three 20 lb extinguishers in exterior corners.

6.1.9.2 Front loaders: a 10 lb extinguisher inside the cabin and one 20 lb extinguisher in outside.

6.1.9.3 Tractors, blades and scrapers: a 10 lb extinguisher inside the cabin and one 20 lb extinguisher in outside.

6.1.10 Sound the horn once before turning on the engine, wait 30 seconds. Then, sound the horn twice before moving it.

6.1.11 Operate only with reverse alarm. See paragraph 6.3.2 for special cases.

6.1.12 Use ladders or other means to go up or down the cabin and other areas of the heavy-duty equipment. Never jump from the equipment.

6.1.13 Whenever possible, turn the wheel clockwise when entering the heavy-duty equipment parking lot. See explanation in paragraph 6.3.4.

6.1.14 Park in a safe place, lay all devices on the floor, and release the tensions on hydraulic and cable systems; turn off and hand in the heavy duty equipment keys (Lock-Out Tag-Out) every time it is going to undergo regular maintenance work.

6.1.15 Use the same gear for slopes, as well as for going up or down a certain hill, and set up the appropriate gear before starting of the slope. Never change gears while going up or down a slope.

6.1.16 Maintain a clear view of the area where the equipment is operated, and establish visual contact with other equipments or vehicles operators before you move your equipment.

6.1.17 Know and exercise the following guidelines pertaining to right of way for operating equipment in the field:

6.1.17.1 The largest vehicle has right of way over the smallest vehicle.

6.1.17.2 Loaded trucks have right of way over unloaded trucks..

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6.1.17.3 Vehicles going upgrade have right of way over those going down.

6.1.17.4 Excepted from this rule are: ambulances, emergency assistance vehicles, explosive trucks, which always have the priority for "Right of Way".

6.1.17.5 Do not move equipment when in doubt, unless there is mutual consent through visual or radio contact.

6.1.18 Use and follow defensive driving criteria at all times.

6.1.18.1 In case of lubricant, fuels, or coolant leaks due to accidental damages, immediately stop operating the equipment, shut off engine, keeping yourself safe trying to contain the leak and notify your immediate supervisor.

6.2 Logs and Training

6.2.1 Inspections must be carried out by operators, and must be documented. These logs must be available at least for three (3) months.

6.2.2 Every employee operating certain heavy-duty equipment must be certified.

6.2.3 Contractor shall provide training for their employees.

6.3 Special situations that require additional explanation.

6.3.1 In the event of an emergency, with risks controlled, passengers may travel in the cabin.

6.3.2 Should the reverse alarm break down unexpectedly you may go back with the support of the flag person.

6.3.3 The designated left lane traffic tends to lower the effect produced by a frontal collision, particularly when operators are located on the left side of the cabin; additionally, the driver has better visual control of a high, vertical or very steep rock face, or other risks located on the edges of the road.

6.3.4 When maneuvering to park heavy-duty equipment by spinning the wheel counterclockwise, and with the driver's left side towards the parking spot, the equipment takes a turn that allows a minimum of blind spots from the operator's cabin (MSHA Turn)

7.0 RESPONSIBILITIES

7.1. ACP managers, supervisors and foremen shall:

7.1.1 Be responsible for implementing and enforcing this standard ensuring all heavy-duty operators are trained and understand responsibilities.

7.1.2 Make sure that all heavy-duty equipment operators are duly trained and certified.

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7.1.3 Make sure that there is the necessary traffic signalization at the work area, particularly regarding established speed limits, and that all employees who have to work together are trained, especially on situations where people or other vehicle are located in blind spots.

7.1.4 Make sure that the roads are designed with the proper width, slope gradients, and that dangerous edges keep birms with minimum heights determined by the radius of the tire of the largest machine operating on the roads.

8.0 INQUIRIES

Any information or clarification of the content or application of this Standard must be requested in writing to the Safety and Industrial Hygiene Unit (RHSH).

9.0 EXCEPTIONS

Any requests for changes or temporary exceptions to this Standard must be made in writing to the Safety and Industrial Hygiene Unit (RHSH).

10.0 TERM

This Standard shall remain in force until amended or revised.

11.0 REFERENCE

11.1 Traffic Law No 9 of April 16, 1993 of the Republic of Panama, "By which the use of the safety belt by vehicle occupants is declared mandatory and other provisions are dictated."