

# Training Standard

Title	Dump Truck – Articulated Chassis: all sizes Novice and Experienced
<p><b>Novice Durations</b></p>	<p><b><u>Novice:</u></b></p> <p><b>Total Duration of Training (excluding testing):</b></p> <ul style="list-style-type: none"> <li>• 1 Person – 14 hours</li> <li>• 2 Persons – 21 hours</li> <li>• 3 Persons – 28 hours</li> </ul> <p><b>Minimum Practical Engagement Time (per person):</b></p> <ul style="list-style-type: none"> <li>• 7 hours</li> </ul> <p><b>Instructor: Candidate: Machine Ratio's</b></p> <ul style="list-style-type: none"> <li>• 1 Instructor: 3 Candidates: 1 Machine</li> </ul> <p>Delegates must cover all learning outcomes of the standard in full.</p> <p><i><b>Note:</b> The total duration must be met along with the minimum seat time per individual, the theory time can be flexed based on the needs of the delegates where some may need more practical time.</i></p>
<p><b>Experienced Durations</b></p>	<p><b><u>Experienced:</u></b></p> <p><b>Total Duration of Training (excluding testing):</b></p> <ul style="list-style-type: none"> <li>• 7 hours</li> </ul> <p><b>Minimum Practical Engagement Time (per person):</b></p> <ul style="list-style-type: none"> <li>• 1.5 Hours</li> </ul> <p><b>Instructor: Candidate: Machine Ratio's</b></p> <ul style="list-style-type: none"> <li>• 1 Instructor: 3 Candidates: No machine ratio set</li> </ul> <p>Delegates must cover all learning outcomes of the standard in full.</p> <p><i><b>Note:</b> The total duration must be met along with the minimum seat time per individual, the theory time can be flexed based on the needs of the delegates where some may need more practical time.</i></p>
<p><b>Purpose/ Scope</b></p>	<p>The Purpose and Scope of this standard is to provide the delegate with the knowledge to support the following:</p> <p>Safe operation of a dump truck by:</p> <ul style="list-style-type: none"> <li>• Carrying out all checks and preparation procedures for site operations</li> <li>• Siting the machine safely and efficiently for loading and discharging</li> <li>• Travelling with and without a load on various types of terrain</li> <li>• Understanding the capabilities, purposes, and limitations of the machine</li> <li>• Understanding all safety precautions</li> <li>• Carry out safe working practices.</li> </ul>
<p><b>Occupational Relevance</b></p>	<p>Training delivered against this standard would be relevant to the following occupational group(s):</p> <ul style="list-style-type: none"> <li>• Operative and craft</li> </ul>

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Candidate pre-requisites	<p><b>Profiling:</b> The trainer will demonstrate and document their decisions for choosing either the Novice or Experienced route based on the delegates knowledge and skills through documented profiling.</p> <p><b>Novice:</b> The Novice training course is for candidates who have limited or no demonstrable practical experience of operating the category of plant in a construction environment.</p> <p><b>Experienced:</b> The Experienced training course is for candidates who hold a current industry recognised red card within the plant category or has equivalent experience.</p>
Instruction/supervision	<p>As a minimum, course trainers must be able to demonstrate that, in relation to this standard, they have:</p> <p>Essential:</p> <ul style="list-style-type: none"> <li>• either <ul style="list-style-type: none"> <li>a) A current card issued by one of the CSCS partner plant schemes at instructor/trainer/assessor level bearing the category of dump truck.</li> <li>or</li> <li>b) A current card issued by one of the CSCS partner plant schemes at operator level bearing the category of dump truck.</li> </ul> </li> <li>• Level 3 Award in Education and Training or equivalent qualification listed in Appendix 3 of the Requirements for Approved Training Organisations.</li> <li>• Health and safety qualification at or equivalent to construction site management level such as: <ul style="list-style-type: none"> <li>– <i>Site Safety Plus Site Management Safety Training Scheme (SMSTS)</i></li> <li>– <i>Site Safety Plus Site Supervision Safety Training Scheme (SSSTS)</i></li> <li>– <i>IOSH Managing Safely in Construction</i></li> <li>– <i>IOSH Safety, Health &amp; Environment for Construction Site Managers</i></li> <li>– <i>5-day CISRS Managers course</i></li> <li>– <i>5-day CCDO Demolition Manager course and end test</i></li> <li>– <i>5-day NPORS Construction Site Safety Manager.</i></li> </ul> </li> <li>• In addition to the required qualifications, the trainer must be able to demonstrate ‘operational’ experience of operating the dump truck relating to the training they are delivering. This can be demonstrated with a minimum of 1 year operating experience.</li> </ul> <p>Desirable:</p> <ul style="list-style-type: none"> <li>• S/NVQ Level 2 Plant Operations in the specific category being trained</li> <li>• Level 3 Certificate in Assessing Vocational Achievement.</li> </ul>

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<p><b>Delivery</b></p>	<p>Training and assessment may be delivered in an on or off-site environment.</p> <p>Where training and assessment takes place within a working construction site environment, training must be segregated from productive work within a prescribed training area, which has been risk assessed and has appropriate control measures in place as required by current legislation and regulations.</p> <p>All equipment required for the training must be set aside specifically for the training session and be available for the entire training duration. Equipment is not to be shared with the working construction site.</p> <p>Welfare facilities must be provided wherever training and assessment takes place, and this should meet relevant legislation.</p> <p>All materials and equipment must be of a suitable quality and quantity for delegates to achieve learning outcomes delivery and assessment criteria, and must comply with relevant legislation, regulations and industry agreed requirements.</p> <p>The class size and delegate/trainer ratio must allow training to be delivered in a safe manner and enable delegates to achieve the learning outcomes.</p> <p>This must not exceed 1 delegate: 1 machine: 1 trainer.</p> <p>Irrespective of the number of delegates, effective learning must be maintained for all delegates.</p> <p>The following training delivery methods may be used in the delivery of this standard:</p> <ul style="list-style-type: none"> <li>• Face to face learning environment (such as a classroom/workshop/site office) for theoretical learning &amp; assessment</li> <li>• On or off the job site environment for practical learning and assessment</li> <li>• Simulator for practical training.</li> </ul> <p><b>Note:</b> if a simulator is used, it can only comprise of a total of 20% of overall practical training and not used in any assessment.</p> <p>This standard is considered to contain 70% or more practical training.</p>
<p><b>Assessment</b></p>	<p>For the successful completion of training, candidates must complete an end of course practical assessment and knowledge test that has a clear pass or fail criteria as set out by the card scheme. The marking criteria must effectively measure every aspect of each learning outcome and additional guidance for training and assessment.</p> <p>The test used must be the standard CPCS Theory and Practical Test.</p>
<p><b>Quality Assurance</b></p>	<p>CPCS will quality assure against this standard and ensure that <b>all</b> Learning Outcomes have been met. The centre must retain evidence that the learning outcomes are referenced and achieved. This must be held by the training centre for a minimum of six years.</p> <p>CPCS will undertake un-announced or announced quality assurance visits of the training to ensure compliance with the Scheme of Works and the requirements of the Tester and Trainer Scheme Booklet</p>

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	<p>To ensure that compliance checks are effective, NOCN Job Cards Quality Assurance personnel must be given unrestricted access to all activities associated with the delivery of the Training Standards</p> <p>Further quality assurance requirements are set out in the Test Centre Scheme Booklet</p>
<b>Approval Date</b>	28/07/22
<b>Renewal</b>	There are no mandatory renewal or recommended refresher requirements for this standard
<b>Review Cycle</b>	On request or 5 years from approval date

<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
<b>Explain the hazards of working in the construction industry, and their responsibilities as dump truck operator</b>		
<ul style="list-style-type: none"> <li>• Why the industry has many hazards and why safe working practices must be adopted and maintained</li> <li>• Why personal health and safety is not just physical injury and can include the effects of noise and vibration. All of which can lead to lost time, lost income, expense for the employer, fines, custodial sentences etc.</li> <li>• Health &amp; Safety at Work Act 1974, Provision and Use of Work Equipment Regulations (PUWER), Management of Health and Safety of Work (MHSW) Regulations, Construction (Design &amp; Management) Regulations (CDM), Vibration at Work Regulations, Road Traffic Act, HSG144, LOLER, HSG46 etc. in accordance with risk assessments, method statements, codes of practice and other relevant legislation, regulations, and industry good practice</li> <li>• Operators’ moral obligations, legal obligations, and environmental obligations</li> <li>• Reporting structures, the importance of good communication on site (colleagues, management, and other workers on site)</li> </ul>	<ul style="list-style-type: none"> <li>• Industry type</li> <li>• Sector contribution.</li> <li>• Actions required for hazards:               <ol style="list-style-type: none"> <li>1. <i>Noise</i></li> <li>2. <i>Vibration</i></li> <li>3. <i>Underground and Overhead Services.</i></li> </ol> </li> <li>• Safe working practices.</li> <li>• Effects of hazards:               <ol style="list-style-type: none"> <li>1. <i>Lost time</i></li> <li>2. <i>Lost income</i></li> <li>3. <i>Expense for the employer</i></li> <li>4. <i>Fines</i></li> <li>5. <i>Custodial sentences.</i></li> </ol> </li> <li>• Legislation, Regulations and Guidance:               <ol style="list-style-type: none"> <li>1. <i>Health and Safety at Work Act</i></li> <li>2. <i>Provision and Use of Work Equipment Regulations (PUWER)</i></li> <li>3. <i>Management of Health and Safety of Work (MHSW) Regulations</i></li> <li>4. <i>Construction (Design and Management) Regulations</i></li> <li>5. <i>Vibration at Work Regulations</i></li> <li>6. <i>Road Traffic Act</i></li> <li>7. <i>HSG114</i></li> <li>8. <i>HSG46.</i></li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• Identify common hazards on a construction site</li> <li>• Explain safe working practices relevant to the role of the dump truck operator</li> <li>• Explain personal health and safety relevant to the role of dump truck operator</li> <li>• Identify aspects of legislation, regulations, and industry good practice relevant to the role of dump truck operator</li> <li>• Describe reporting structures and the importance of good communication on site</li> <li>• Explain the responsibilities of a dump truck operator.</li> </ul>

<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
<ul style="list-style-type: none"> <li>• Past incidences involving relevant plant and pedestrians</li> <li>• Working with other related roles e.g. marshallers, supervisors, other plant operatives, other occupations</li> </ul>	<ul style="list-style-type: none"> <li>• Risk Assessments, Method Statements and Permit to Work</li> <li>• Social Responsibilities</li> <li>• Environmental issues</li> <li>• Reporting structures</li> <li>• Operator Roles</li> <li>• Communication with colleagues/ management/ other trades</li> <li>• Customer/ Client needs</li> <li>• Accident statistics.</li> </ul>	
<b>Identify and extract information from the manufacturer’s handbook/ operator’s manual, and other information sources including digital</b>		
<ul style="list-style-type: none"> <li>• Use of the operator’s manual (for the specific machine) during the practical elements of training to identify key preparation, operational and safety aspects of the machine</li> <li>• Types of information sources including machine control systems.</li> </ul>	<p>Conform with manufacturer’s requirements as per operator’s handbook, other types of information source and relevant regulations and legislation:</p> <ul style="list-style-type: none"> <li>• Operator’s Manual               <ol style="list-style-type: none"> <li>1. <i>Safety Information</i></li> <li>2. <i>Operation</i></li> <li>3. <i>Maintenance.</i></li> </ol> </li> <li>• Codes of practice</li> <li>• Site plans/ drawings</li> <li>• Risk Assessments and Method Statements.</li> <li>• COSHH:               <ol style="list-style-type: none"> <li>1. <i>Safety Data Sheets.</i></li> </ol> </li> <li>• Load/ tare sheets</li> <li>• Inspection and reporting forms/ procedures.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify and extract key elements for the preparation and safe use of the dump truck using various sources.</li> </ul>
<b>Locate and identify the major components, signs and decals, and all controls of the dump truck and explain their functions</b>		

<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
<ul style="list-style-type: none"> <li>• The purpose of principal components, the basic construction, controls, and terminology</li> <li>• How correct and sympathetic use of the controls can ensure efficiency and safety of the machine and help prolong machine life by reducing wear and tear</li> <li>• Purposes of Roll Over Protection Systems (ROPS) and Falling Objects Protection Systems (FOPS) and other protection systems</li> <li>• Types and use of traction aids.</li> </ul>	<p>Name and explain the purpose of principal components, the basic construction, correct and sympathetic use of controls and terminology:</p> <ul style="list-style-type: none"> <li>• Differing types of machines</li> <li>• Functions and applications</li> <li>• Control levers and pedals</li> <li>• Power units</li> <li>• Hydraulic systems</li> <li>• Transmissions</li> <li>• Chassis/ steering/ tyres</li> <li>• Braking systems</li> <li>• Fuel system</li> <li>• Coolant system</li> <li>• Correct and sympathetic use of the controls</li> <li>• Carrying capacities</li> <li>• ROPS</li> <li>• FOPS</li> <li>• Seat restraints.</li> <li>• Traction Aids:               <ol style="list-style-type: none"> <li>1. <i>Tyre inflation</i></li> <li>2. <i>Tyre condition</i></li> <li>3. <i>Sufficient tread.</i></li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• Identify and explain the function of all controls and warning systems</li> <li>• Explain why the correct and sympathetic use of controls aids efficiency, longevity, and safety</li> <li>• State the purposes of ROPS and FOPS and other protection systems</li> <li>• Locate and identify the major components, signs and decals, and controls of the machine</li> <li>• Describe the types and use of traction aids.</li> </ul>
<b>Conduct all pre-operational checks in accordance with manufacturers and legislative requirements</b>		
<ul style="list-style-type: none"> <li>• Complete all pre-start and running checks before any activity takes place, including visual checks for damage, functionality, and effectiveness</li> </ul>	<p>Undertake all pre-use checks:</p> <ul style="list-style-type: none"> <li>• Regular and non-scheduled maintenance procedures:</li> </ul>	<ul style="list-style-type: none"> <li>• Explain the procedure for defect reporting and why it's important.</li> </ul>

<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
<ul style="list-style-type: none"> <li>• All componentry systems fully functional, including mechanical, hydraulic, pneumatic, electrical and electronic etc.</li> <li>• Replenish fuels, fluids and lubricants, and undertake grease-based lubrication activities</li> <li>• Manufacturers periodic checks and operator level maintenance requirements</li> <li>• Defect reporting requirements</li> <li>• Carry out routine adjustments</li> <li>• Safety systems functions including emergency stop</li> <li>• Health and safety requirements when undertaking basic maintenance activities including personal protection equipment (PPE)</li> <li>• Check condition and function of seatbelt and any other restraining equipment</li> <li>• Check condition and function of any lighting and warning systems</li> <li>• Use of safety items e.g. struts for hydraulic tipping and steering rams.</li> </ul>	<ol style="list-style-type: none"> <li>1. <i>Axle oil</i></li> <li>2. <i>Engine oil</i></li> <li>3. <i>Transmission oil</i></li> <li>4. <i>Hydraulic oil</i></li> <li>5. <i>Coolant level</i></li> <li>6. <i>Fuel level</i></li> <li>7. <i>Braking effect</i></li> <li>8. <i>Condition of wheels</i></li> <li>9. <i>Tyre pressure</i></li> <li>10. <i>Fan belt.</i></li> </ol> <p>The following operational functions are to be checked as part of the Pre-use and running checks included into the Practical assessment prior to any work-related task or activity being undertaken:</p> <ul style="list-style-type: none"> <li>• Braking effect:               <ol style="list-style-type: none"> <li>1. <i>Check if the braking capacity of the parking brake, foot brake, and retarder brake.</i></li> </ol> </li> <li>• Steering:               <ol style="list-style-type: none"> <li>1. <i>Check manual and auto emergency steering.</i></li> </ol> </li> <li>• Electrics:               <ol style="list-style-type: none"> <li>1. <i>Horn sounds</i></li> <li>2. <i>Reverse alarm sounds</i></li> <li>3. <i>Beacon flashes</i></li> <li>4. <i>Lights – side, main, stop, indicators, hazards.</i></li> </ol> </li> <li>• Tipping lever:               <ol style="list-style-type: none"> <li>1. <i>Raise/ lower skip.</i></li> </ol> </li> <li>• Refuelling procedures</li> </ul>	<p><b>The following should be observed during the practical assessment:</b></p> <ul style="list-style-type: none"> <li>• Conduct all pre-operational checks as above in accordance with manufacturer guidance and legislative requirements - <b>note:</b> <i>verbal description to the instructor of specific pre-start checks will be acceptable if the machine is hot where they cannot be done safely e.g. engine fluids.</i></li> </ul>



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	<ul style="list-style-type: none"> <li>• Greasing</li> <li>• Parking brake</li> <li>• Air pressure</li> <li>• Adjust mirrors</li> <li>• Seatbelt restraining system</li> <li>• Defect Reporting Requirements:               <ol style="list-style-type: none"> <li>1. <i>All checks and inspections to be recorded and reported to relevant person.</i></li> </ol> </li> <li>• Health and Safety Requirements including Personal Protection Equipment (PPE):               <ol style="list-style-type: none"> <li>1. <i>Head protection</i></li> <li>2. <i>Foot protection</i></li> <li>3. <i>High-visibility clothing</i></li> <li>4. <i>Weather-appropriate clothing</i></li> <li>5. <i>Hearing protection</i></li> <li>6. <i>Gloves.</i></li> </ol> </li> </ul>	
<b>Identify and maintain personal protective equipment (PPE) and appropriate safety control equipment for dump truck use</b>		
<ul style="list-style-type: none"> <li>• What safety control equipment/PPE should be worn/used for machine operations and include the following: suitable safety footwear, ear defenders, face/eye protection, dust mask, suitable gloves, overalls, hard hat, respiratory protective equipment (RPE), protective clothing etc.</li> <li>• Appropriate use of local exhaust ventilation (LEV), i.e. in confined spaces</li> </ul>	<ul style="list-style-type: none"> <li>• Head protection</li> <li>• Foot protection</li> <li>• High-visibility clothing</li> <li>• Weather-appropriate clothing</li> <li>• Gloves.</li> </ul> <p>Local exhaust ventilation (LEV):</p> <ul style="list-style-type: none"> <li>• Pre-use checks and regular maintenance</li> </ul>	<ul style="list-style-type: none"> <li>• Describe what forms of PPE and RPE must be worn for site operations</li> <li>• Explain why PPE and RPE must be worn for site operations</li> <li>• Give an example of when use of LEV would be appropriate</li> <li>• State how severe weather can affect safety and health with insufficient equipment.</li> </ul>

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<ul style="list-style-type: none"> <li>Why weather conditions, including heat and cold, can determine what PPE is worn when using specific machine and the personal effects of incorrect equipment.</li> </ul>	<ul style="list-style-type: none"> <li>Defects in local exhaust ventilation systems must be reported and promptly rectified.</li> </ul> <p>Weather conditions including heat and cold:</p> <ul style="list-style-type: none"> <li>Supplying suitable PPE:               <ol style="list-style-type: none"> <li><i>Appropriate for the risks involved and the conditions of exposure</i></li> <li><i>It takes account of the ergonomic requirements and state of health of the user</i></li> <li><i>It can fit the wearer properly</i></li> <li><i>Effectively prevents or adequately controls exposure to risk</i></li> <li><i>Complies with any relevant UK or European Regulation or Directive.</i></li> </ol> </li> </ul>	
<b>Safely get in and out of the machine</b>		
<ul style="list-style-type: none"> <li>Working at height requirements</li> <li>Safe use of all hand holds and steps</li> <li>Facing the machine when getting in and out the dump truck for operational and maintenance purposes</li> <li>Effects of continually getting in and out the dump truck e.g. fatigue, increased risk of falling etc.</li> <li>Safe areas to get in/out the dump truck e.g. ground location, other vehicle movements etc.</li> </ul>	<ul style="list-style-type: none"> <li>Use grabrails and footsteps provided to reach machine seat.               <ol style="list-style-type: none"> <li><i>Mount and dismount facing machine.</i></li> </ol> </li> <li>Working at height requirements</li> <li>Pedestrian routes should be established and segregated from mobile plant and vehicles</li> <li>Traffic routes should be planned in order to minimise congestion and risk of collision</li> <li>Appropriate speed limits</li> <li>Parking place designated for vehicles</li> <li>Operators must be informed of proximity hazards</li> </ul>	<ul style="list-style-type: none"> <li>Explain the effects of not using correct procedures to get in and out the machine including when carrying out adjustment and maintenance activities</li> <li>Explain the areas for safely getting in and out the dump truck.</li> </ul> <p><b>The following should be observed during the practical assessment:</b></p> <ul style="list-style-type: none"> <li>Demonstrate the correct procedures as listed above.</li> </ul>

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<ul style="list-style-type: none"> <li>Procedures for accessing the dump truck when carrying out adjustment and maintenance activities.</li> </ul>	<ul style="list-style-type: none"> <li>Ground conditions should be stable and sufficiently level for the operations being carried out.</li> <li>Plant safe zones.</li> </ul> <p>Medical Fitness:</p> <ul style="list-style-type: none"> <li>Ensure that operators are medically fit to operate</li> <li>Employee is physically and mentally capable of undertaking the tasks they are required to carry out.</li> </ul> <p>Adjustment and maintenance activities:</p> <ul style="list-style-type: none"> <li>Stop engine before carrying out inspection and maintenance:               <ol style="list-style-type: none"> <li>Stop the machine on firm, level ground</li> <li>Ensure dump truck body is lowered and lock lever (if fitted)</li> <li>Ensure parking brake is in park position and chock wheels if required</li> <li>Lock with articulation lock so that the machine does not articulate.</li> </ol> </li> </ul>	
<b>Prepare the dump truck for movement – site and highway travel</b>		
<ul style="list-style-type: none"> <li>Use of seatbelts and other restraining equipment</li> <li>Adjustment of seating and steering wheel/levers position and mirrors</li> <li>Steering and braking systems checks</li> <li>Types and use of visibility aids and what factors can affect clear, all-round vision</li> </ul>	<ul style="list-style-type: none"> <li>Check controls:               <ol style="list-style-type: none"> <li>Seat – adjust for comfort/ reach</li> <li>Wear seatbelt – adjust</li> <li>Check parking brake – on</li> <li>Controls – dump lever in the lower position</li> <li>Foot brake – pressure.</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>Identify and select correct PPE and weather-related equipment to be worn during practical activities</li> <li>Explain the legal requirements for travelling on the public highway.</li> </ul>

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<ul style="list-style-type: none"> <li>• Where and why effective vision is extremely important</li> <li>• How and where issues can arise when vision is limited during operation</li> <li>• Warning beacons and other safety systems/lights are operable</li> <li>• Traction aids/diff-locks and when to be used</li> <li>• Tyre pressure monitoring systems</li> <li>• Legislative requirements for road travel e.g. licencing for travelling on the public highway.</li> </ul>	<ul style="list-style-type: none"> <li>• Seatbelt must be worn when operating machines fitted with a Roll Over Protection Structure</li> <li>• Adjustment of seat and mirrors</li> <li>• Steering and braking systems checks.</li> <li>• Visibility aids:               <ol style="list-style-type: none"> <li>1. <i>Mirrors</i></li> <li>2. <i>Proximity warning systems</i></li> <li>3. <i>Rear camera operational</i></li> <li>4. <i>Thumbs up procedure.</i></li> </ol> </li> <li>• Safety zones:               <ol style="list-style-type: none"> <li>1. <i>Yellow zone – line of sight of operator and out of danger</i></li> <li>2. <i>Amber zone – machine immobilised, and personnel must gain permission from the dumper operator</i></li> <li>3. <i>Red zone – machine must be immobilised, and permission gained from the dumper operator.</i></li> </ol> </li> <li>• Seat belt wearing indicators:               <ol style="list-style-type: none"> <li>1. <i>Rotating green beacon which is activated when the seat belt clasp is engaged</i></li> <li>2. <i>Road Vehicle Lighting Regulations specifies that green lights are reserved for medical emergency vehicles – green beacon not to be illuminated when travelling on public highway.</i></li> </ol> </li> <li>• Flashing beacon</li> <li>• Travelling on the public highway:</li> </ul>	<p><b>The following should be observed during the practical assessment:</b></p> <ul style="list-style-type: none"> <li>• Ensure the seatbelt is worn correctly prior to any machine movement</li> <li>• Demonstrate how to adjust seating and steering wheel/levers position and mirrors</li> <li>• Demonstrate that functional checks have been completed for all applicable warning lamps, safety systems and vision-aid systems are in place, clear and functional</li> <li>• Conduct all-round visibility checks before moving away and explain why effective vision is extremely important.</li> </ul>

<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
	<ol style="list-style-type: none"> <li>1. <i>The dump truck must be registered and taxed as a “special vehicle”</i></li> <li>2. <i>The dump truck must have vehicle insurance</i></li> <li>3. <i>If the dumper can exceed 20 mph it must have a horn in good working condition</i></li> <li>4. <i>If it can exceed 25 mph it must have a speedometer in good working condition</i></li> <li>5. <i>It must have brakes that enable it to stop within a reasonable distance</i></li> <li>6. <i>The driver must hold a full car (category B) licence</i></li> <li>7. <i>Lights and indicators.</i></li> </ol>	
<b>Travel and manoeuvre and dump truck safely across varying terrain and inclines</b>		
<ul style="list-style-type: none"> <li>• Travelling over various types of terrain, replicating typical site-type surfaces, in a loaded and unloaded state</li> <li>• Factors for automatic and manual gear selection</li> <li>• How travel speeds and gear selection affect dump truck working efficiency, stability, safety, and emissions</li> <li>• Use of primary and secondary braking systems e.g. retarders/hill descent control etc.</li> <li>• Issues which can occur if departing from designated haul routes</li> </ul>	<ul style="list-style-type: none"> <li>• Dump Truck Stability:               <ol style="list-style-type: none"> <li>1. <i>Ground failure</i></li> <li>2. <i>Uneven ground</i></li> <li>3. <i>Travelling on slopes that exceed the limits set by the dump truck manufacturer</i></li> <li>4. <i>Underinflated tyres</i></li> <li>5. <i>Inappropriate driving style</i></li> <li>6. <i>Inappropriate movement of the skip during discharging</i></li> <li>7. <i>Raising the dumper’s centre of gravity by carrying unsuitable loads.</i></li> </ol> </li> <li>• Automatic and manual gear selection:</li> </ul>	<ul style="list-style-type: none"> <li>• Describe what issues can occur if departing from designated haul routes</li> <li>• List the types of underground services and explain the effects of travelling loaded machines near to/over services</li> <li>• Describe the effects of travelling close to edges, embankments, and trenches</li> <li>• Explain how uncompacted surfaces affect stability</li> <li>• Explain the dangers of working on stockpiles and authorisation requirements</li> <li>• Explain the changes of centre of gravity when in loaded and unloaded state and when on inclines</li> </ul>

<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
<ul style="list-style-type: none"> <li>• Types of underground services and the effects of travelling loaded machines near to/over services</li> <li>• Effects of travelling close to edges, embankments and trenches</li> <li>• Travelling on inclines in a loaded and unloaded state</li> <li>• How uncompacted surfaces affect stability</li> <li>• Dangers of working on stockpiles and authorisation requirements</li> <li>• Changes of centre of gravity when in loaded and unloaded state and when on inclines</li> <li>• Procedures in the event of machine roll over.</li> </ul>	<ol style="list-style-type: none"> <li>1. <i>Do not move the gear shift lever to Neutral when the machine is travelling</i></li> <li>2. <i>If the transmission is in Neutral, the engine cannot provide any braking effect and the steering wheel will be become heavier.</i></li> </ol> <ul style="list-style-type: none"> <li>• Ground conditions</li> <li>• Ground assessment.</li> <li>• Ground related hazards:               <ol style="list-style-type: none"> <li>1. <i>Soft ground</i></li> <li>2. <i>Voids</i></li> <li>3. <i>Underground services</i></li> <li>4. <i>Lack of maintenance of running surfaces</i></li> <li>5. <i>Excavations</i></li> <li>6. <i>Open or steep sided edges</i></li> <li>7. <i>Slopes</i></li> <li>8. <i>Excessive travel speed</i></li> <li>9. <i>Wet ground</i></li> <li>10. <i>Environmental constraints such as habitat protection</i></li> <li>11. <i>Dry and dusty roads – need for eye protection.</i></li> </ol> </li> <li>• Ground improvement</li> <li>• Haul roads and other routes.</li> <li>• The use of dump trucks on stockpiles:               <ol style="list-style-type: none"> <li>1. <i>Risk assessment and method statement</i></li> <li>2. <i>Classification of the stockpile material</i></li> <li>3. <i>Compaction and stability of the ground</i></li> <li>4. <i>Safe access and egress</i></li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• Describe the procedures in the event of machine roll over.</li> </ul> <p><b>The following should be observed during the practical assessment:</b></p> <ul style="list-style-type: none"> <li>• Demonstrate safe travel over rough, undulating ground, inclines, and level surface</li> <li>• Demonstrate safe travel speeds in accordance with terrain and environment</li> <li>• Travel up and down a gradient (the slope must have an incline of 18% (1:5.5) with sufficient manoeuvring area at the top, or a straight ramp with an up and down route with a flat area at the summit)</li> <li>• Stop and start on the gradient whilst travelling uphill</li> <li>• Stop and start on the gradient whilst travelling downhill</li> <li>• Reverse the dump truck (min 50 metres) in a straight line and through a restriction (un-laden and laden) – not applicable to reversing seating types.</li> </ul>

<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
	<ul style="list-style-type: none"> <li>5. <i>Stop blocks and/ or edge berms</i></li> <li>6. <i>Turning circle or egress ramp to be provided</i></li> <li>7. <i>Stockpile formed and maintained using an excavator.</i></li> <li>• Working on gradients:               <ul style="list-style-type: none"> <li>1. <i>Do not exceed maximum stated gradients</i></li> <li>2. <i>Do not turn across gradients</i></li> <li>3. <i>Do not brake suddenly in wet, muddy, icy conditions or when operating on loose surfaces</i></li> <li>4. <i>When travelling downhill, travel at a safe speed which matches the conditions of the road</i></li> <li>5. <i>Travel straight up, down, or along a gradient</i></li> <li>6. <i>Keep speed to a minimum and use the brake retarder slowly to reduce speed when travelling down gradients</i></li> <li>7. <i>Always engage parking brake when stopped on sloping ground and in addition chock wheels securely when leaving the machine unattended to prevent movement.</i></li> </ul> </li> <li>• Procedures in the event of a roll – over:               <ul style="list-style-type: none"> <li>1. <i>Never attempt to exit or jump from an overturning dump truck.</i></li> </ul> </li> </ul>	
<b>Manoeuvre in areas of restricted space</b>		
<ul style="list-style-type: none"> <li>• Precautions to be taken when manoeuvring in areas of restricted space</li> </ul>	<ul style="list-style-type: none"> <li>• Factors to be considered during the planning stage:               <ul style="list-style-type: none"> <li>1. <i>Limited manoeuvring room for the dump truck to approach the loading machine at correct angles</i></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Describe the precautions to be taken when manoeuvring in areas of restricted space</li> <li>• Explain how to determine if safe to proceed</li> </ul>

<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
<ul style="list-style-type: none"> <li>• Visual checks of the area for hazards and how to determine if safe to proceed</li> <li>• Check dump truck size relevant to working area, including working height, width, and steering angle</li> <li>• Lighting requirements and issues that may occur due to poor light conditions</li> <li>• Communication requirements with marshalls.</li> </ul>	<ol style="list-style-type: none"> <li>2. <i>A higher risk of the dump truck being loaded whilst on an incline</i></li> <li>3. <i>Limited manoeuvring room to allow the dump truck to traverse an incline in the correct direction, either laden or unladen</i></li> <li>4. <i>Close proximity of the loading machine to the dump truck, increasing the risk of striking the machine</i></li> <li>5. <i>Limited options for the operator to be in a safe place during the loading activity</i></li> <li>6. <i>Poor environmental conditions such as dust and fumes</i></li> <li>7. <i>Restricted headroom.</i></li> </ol> <ul style="list-style-type: none"> <li>• Lighting and warnings</li> <li>• All-round visibility</li> <li>• Plant safe zones.</li> <li>• Communication:               <ol style="list-style-type: none"> <li>1. <i>Two-way radio.</i></li> </ol> </li> <li>• Recognised hand signals:               <ol style="list-style-type: none"> <li>1. <i>The signaller should stand in a secure position, where they are visible to the operator.</i></li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• Describe lighting requirements and issues that may occur due to poor light conditions</li> <li>• Explain communication requirements with marshalls</li> </ul> <p><b>The following should be observed during the practical assessment:</b></p> <ul style="list-style-type: none"> <li>• Manoeuvre the dump truck through a chicane applying the full steering range in both forward and reverse direction (un-laden and laden)</li> <li>• Maintain full visibility and look at or face direction of travel</li> <li>• Avoid contact with structures and objects.</li> </ul>
<b>Conduct all necessary safety checks at the loading and discharging areas</b>		
<ul style="list-style-type: none"> <li>• Safety checks that must be carried out to ensure the loading area and discharging area are clear of hazards</li> </ul>	<ul style="list-style-type: none"> <li>• Types of discharge areas:               <ol style="list-style-type: none"> <li>1. <i>Edge, stockpile, or excavation.</i></li> </ol> </li> <li>• Edge and machine protection:               <ol style="list-style-type: none"> <li>1. <i>wheel stops/ spotting logs etc.</i></li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• Explain why safety checks of the loading and discharging area are necessary</li> </ul>



<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
<ul style="list-style-type: none"> <li>• Actions required for emergency situations</li> <li>• Loading and discharge area segregation from other activities</li> <li>• Sufficient manoeuvring area</li> <li>• Ground conditions to support dump truck and load weight and maintains dump truck stability</li> <li>• Communication requirements and methods with loading operator</li> <li>• Working in hours of darkness and lighting requirements.</li> </ul>	<ul style="list-style-type: none"> <li>• Vehicle movements:               <ol style="list-style-type: none"> <li>1. <i>Establish a safe zone of work</i></li> <li>2. <i>Access, egress.</i></li> </ol> </li> <li>• Ground, stability/centres of gravity (raised skips):               <ol style="list-style-type: none"> <li>1. <i>Discharge area must be firm and level</i></li> <li>2. <i>Dump truck must be 90° to the tipping point if tipping over edge.</i></li> </ol> </li> <li>• Material jams:               <ol style="list-style-type: none"> <li>1. <i>Cohesive soils can stick to skip.</i></li> </ol> </li> <li>• Discharging on inclines:               <ol style="list-style-type: none"> <li>1. <i>Do not discharge load when working on sloping ground less than 3 degrees cross-fall and camber.</i></li> </ol> </li> <li>• Discharging whilst moving:               <ol style="list-style-type: none"> <li>1. <i>Discharging whilst moving is not good practice</i></li> <li>2. <i>Ejector bodies.</i></li> </ol> </li> <li>• Signalling/following instructions:               <ol style="list-style-type: none"> <li>1. <i>Communication with loading operator.</i></li> </ol> </li> <li>• Fully emptying skips.</li> <li>• Visibility:               <ol style="list-style-type: none"> <li>1. <i>Hours of darkness and lighting requirements.</i></li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• Explain the need for sufficient manoeuvring area and what ground conditions are required for dump truck stability</li> </ul> <p><b>The following should be observed during the practical assessment:</b></p> <ul style="list-style-type: none"> <li>• Identify and use designated loading area entry and exit locations</li> <li>• Demonstrate how to ensure the loading area is clear of hazards and explain why this is important</li> <li>• Establish communication method with loading machine operators and support workers.</li> </ul>
<b>Position to receive loads</b>		
<ul style="list-style-type: none"> <li>• Gearing and travel speed selection when approaching loading position</li> </ul>	<p>Factors to consider when preparing the area for loading:</p> <ul style="list-style-type: none"> <li>• Speed should be appropriate to the conditions</li> </ul>	<ul style="list-style-type: none"> <li>• List types of body and discharge methods</li> <li>• List various types of loading equipment</li> <li>• Describe weight load indicating systems</li> </ul>

<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
<ul style="list-style-type: none"> <li>• Types of body and discharge methods e.g. gravity discharge/walking floor/ejector, side extensions/spill guards, tailgates etc.</li> <li>• Various types of loading equipment, e.g. conveyers, hoppers etc. and characteristics of each</li> <li>• Body load capacities including struck/heaped</li> <li>• Weight load indicating systems</li> <li>• Function of heated body</li> <li>• Why ground conditions and level ground are important for loading purposes</li> <li>• Procedures to be followed to ensure no unintentional movement of the machine during loading</li> <li>• Minimising the need to reverse up to a loading machine</li> <li>• Factors that ensure operative personal safety during the loading process including designated safe areas</li> <li>• FOPS cabs and factors that allow the operator to stay seated during loading.</li> </ul>	<ul style="list-style-type: none"> <li>• Loading areas should be optimised to provide a good working system</li> <li>• Access and egress for the dump truck</li> <li>• Maintenance of the working surface to avoid undue adverse cambers, gradients and soft ground.</li> <li>• Dump truck body heating:               <ol style="list-style-type: none"> <li>1. <i>Heated body options provide a more efficient means to reduce carry back and reduce the risk of a stuck load in colder conditions.</i></li> </ol> </li> <li>• Rear tailgate:               <ol style="list-style-type: none"> <li>1. <i>Ideal aid for load retention with free-flowing materials such as ballast, stone and sand on rough terrain and slopes.</i></li> </ol> </li> <li>• Body side extensions:               <ol style="list-style-type: none"> <li>1. <i>Provides a means to increase the volume of the body for carrying lower density materials such as dry sand</i></li> <li>2. <i>The extra volume should only be used to raise the payload closer to the manufacturers rated capacity.</i></li> </ol> </li> <li>• Ejector bodies:               <ol style="list-style-type: none"> <li>1. <i>A skip design that uses a ram or plough to eject materials from the body without the need to raise the skip</i></li> <li>2. <i>Potential to reduce risk of skip overturns</i></li> <li>3. <i>Advantages in relation to cycle times as tipping can be carried out whilst in motion.</i></li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• Explain the function of the heated body</li> <li>• Explain why it is important to minimise the need to reverse up to a loading machine</li> <li>• Explain FOPS cabs and factors that allow the operator to stay seated during loading.</li> </ul> <p><b>The following should be observed during the practical assessment:</b></p> <ul style="list-style-type: none"> <li>• Position the dump truck for loading following loading operator’s instructions using appropriate gearing and travel speed</li> <li>• Ensure that the dump truck is parked on firm level ground for loading and explain why ground conditions and level ground are important for loading purposes</li> <li>• Ensure that the machine is braked prior to loading</li> <li>• Receive a minimum of 3 x loads to capacity of the machine</li> <li>• Ensure that the dump truck operator is within a safe area prior to the loading operation.</li> </ul>

<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
	<ul style="list-style-type: none"> <li>• Weigh load measuring system:               <ol style="list-style-type: none"> <li>1. <i>Increases efficiency and prevents overloading by calculating the weight load via pressure sensors and angle of vehicle, where the calculated weight load is shown to the operator on the dashboard.</i></li> </ol> </li> </ul> <p>Loading procedures using an Excavator</p> <ul style="list-style-type: none"> <li>• Approach the loading machine:               <ol style="list-style-type: none"> <li>1. <i>Travel speed selection.</i></li> </ol> </li> <li>• Sufficient distance between the stopping point of the dump truck and excavator</li> <li>• Parking brake applied</li> <li>• Operator remain in cab if FOPS is fitted</li> <li>• Loaded material should not be above the top of the skip if possible</li> <li>• Once loaded to capacity, loading machine operator signals dump truck operator that machine can be moved.</li> </ul> <p>Loading machine considerations:</p> <ul style="list-style-type: none"> <li>• 360° Excavator:               <ol style="list-style-type: none"> <li>1. <i>360° slew ability and sufficient reach and height to efficiently load the dump truck.</i></li> </ol> </li> <li>• Loading shovel:               <ol style="list-style-type: none"> <li>1. <i>Put the dump truck at an angle of 45° to the stockpile</i></li> <li>2. <i>This cuts out unnecessary manoeuvring</i></li> </ol> </li> </ul>	

<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
	<ol style="list-style-type: none"> <li>3. <i>Allow enough distance for the loading shovel to reach its unloading height while travelling</i></li> <li>4. <i>Do not dump the materials in one sudden movement. Roll the shovel forward in stages until it is empty.</i></li> </ol> <ul style="list-style-type: none"> <li>• <b>Conveyers:</b> <ol style="list-style-type: none"> <li>1. <i>Transports materials in a linear motion and the discharge point cannot normally be adjusted.</i></li> </ol> </li> </ul>	
<b>Ensure load integrity and security</b>		
<ul style="list-style-type: none"> <li>• How different material properties will affect the weight/volume of materials to be carried</li> <li>• Causes of overloading</li> <li>• What can and cannot be carried in the body</li> <li>• What the manufacturers requirements are for transporting loads</li> <li>• How to ensure that the body is not overloaded</li> <li>• How an overloaded body or offset load can affect stability and safety</li> <li>• Factors with loads that project beyond the body</li> <li>• What is meant by maximum utilisation of the machine to transport granular-type loads</li> <li>• Why load integrity is important to safe operations.</li> </ul>	<ul style="list-style-type: none"> <li>• The level of the load placed within the skip should not be above the top of the skip (struck load):               <ol style="list-style-type: none"> <li>1. <i>Body side extensions provide a means to increase the volume of a dumper body for carrying lower density materials such as dry sand</i></li> <li>2. <i>Risk of collision with structures, people, plant.</i></li> </ol> </li> <li>• Excess materials add weight which places extra strain on the dump truck's component</li> <li>• Additional weight could overload the dump truck's hydraulic system</li> <li>• Load binds together during discharging, moving the centre of gravity forward causing potential overturn in a forward direction</li> <li>• Dump truck's centre of gravity has been raised which will make it more unstable, particularly on inclines</li> </ul>	<ul style="list-style-type: none"> <li>• Explain where to find the manufacturers requirements for securely transporting loads</li> <li>• Explain what is meant by the maximum utilisation of a dump truck and how it is determined</li> <li>• Explain why load integrity is important to safe operations.</li> </ul> <p><b>The following should be observed during the practical assessment:</b></p> <ul style="list-style-type: none"> <li>• Explain how to check that the body is not overloaded with material</li> <li>• Check that all loose material is removed before travel and explain why this is important</li> <li>• Ensure that there is effective forward vision for travelling and that the load is secure.</li> </ul>

<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
	<ul style="list-style-type: none"> <li>• Excess weight creates higher ground pressure through the tyres</li> <li>• Excess weight can excessively compact the ground, potentially damaging underground services and haul routes</li> <li>• Excessive speed when cornering or harsh braking can cause material to move.</li> <li>• Material properties:               <ol style="list-style-type: none"> <li>1. <i>Solid, Semi – fluid, fluid</i></li> <li>2. <i>Single sized granular materials – clays, silt and soils.</i></li> </ol> </li> </ul>	
<b>Transfer loads to different locations</b>		
<ul style="list-style-type: none"> <li>• Factors that affect safe and effective transportation of loads</li> <li>• Prior confirmation on where each load needs to be transported to</li> <li>• Haul road etiquette between loaded and unladen machines.</li> </ul>	<ul style="list-style-type: none"> <li>• Haul roads, routes between loading and discharge points and access ramps should be of sufficient size, strength, and well maintained:               <ol style="list-style-type: none"> <li>1. <i>Ideally the haul road width should be a minimum of twice the vehicle width for one-way traffic, or three and a half times the vehicle width for two-way traffic.</i></li> </ol> </li> <li>• Gradients and inclines are a particular hazard to dump truck operations</li> <li>• Travel on or across inclines is minimised</li> <li>• Sharp changes of gradient should be avoided</li> <li>• Haul routes may need to zig-zag up the slope to minimise the driving gradient</li> </ul>	<ul style="list-style-type: none"> <li>• Explain how to stay clear of any route hazards.</li> </ul> <p><b>The following should be observed during the practical assessment:</b></p> <ul style="list-style-type: none"> <li>• Demonstrate keeping within designated travel routes</li> <li>• Maintain full observation</li> <li>• Ensure safe travel speeds in accordance with terrain and environment.</li> </ul>

<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
	<ul style="list-style-type: none"> <li>• Site speed limits should be set and enforced to reduce the risk of collisions and overturns.</li> <li>• Suitable and sufficient measures must be taken to prevent a vehicle from falling into any excavation or pit, or into water, or overturning the edge of any embankment or earthwork:               <ol style="list-style-type: none"> <li>1. <i>Haul roads should be bunded to a minimum height of 1.5 metres or half of the largest vehicle tyre diameter.</i></li> </ol> </li> </ul>	
<b>Discharge loads</b>		
<ul style="list-style-type: none"> <li>• Typical hazards within a discharge area and reasons for exclusion zones</li> <li>• What checks need to be carried out at the discharge area</li> <li>• Typical hazards of discharging loads into trenches and over edges, including overrun prevention, substantial edge protection, and ground stability</li> <li>• Ground conditions to prevent instability</li> <li>• Vision requirements to avoid overrun</li> <li>• Factors that can affect machine stability when raising a loaded body including stuck/slow discharge loads</li> <li>• Effects of trapped loads with tailgate bodies</li> <li>• Discharging with the body laterally unlevel</li> </ul>	<p>The location for load discharging should be planned and controlled so that risks are minimised during the discharging process, which may be hazardous due to several factors including:</p> <ul style="list-style-type: none"> <li>• The dump truck could be approaching an edge or an excavation</li> <li>• Continual discharge at a tipping point can cause changes in the ground and affect stability</li> <li>• As a skip is raised to discharge a load, the centre of gravity is both raised and moves towards the front of the machine, making it less stable</li> <li>• Cohesive soils can stick to the base of the skip and cause the dumper to overturn</li> <li>• The discharge area must be level and firm.</li> <li>• Discharge of material over an edge or within a trench:</li> </ul>	<ul style="list-style-type: none"> <li>• Explain why pre-discharge checks are important.</li> </ul> <p><b>The following should be observed during the practical assessment:</b></p> <ul style="list-style-type: none"> <li>• Check discharge area clear of hazards</li> <li>• Demonstrate entering the discharge area exclusion zone using correct entry point</li> <li>• Check that the ground at discharge area is level and firm</li> <li>• Demonstrate employment/use of trench overrun devices/berms etc. and explain why it is important to use them</li> <li>• Demonstrate the discharge of a minimum of 3 x loads over an edge with substantial edge protection and into an excavation (the trench or</li> </ul>

<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
<ul style="list-style-type: none"> <li>• Procedures for discharging loads including preventing unintentional machine movement</li> <li>• Procedures for ensuring full discharge of the body and clearing the discharge area</li> <li>• Travelling with raised body</li> <li>• How to form stockpiles.</li> </ul>	<ol style="list-style-type: none"> <li>1. <i>Physical barrier such as an earth berm or ‘stop-block’</i></li> <li>2. <i>Ratio of the wheel diameter to barrier height should be sufficient to prevent overrun.</i></li> </ol> <ul style="list-style-type: none"> <li>• When a stockpile is being formed, the deposited material should be placed at the foot of the heap only (stand off area), so that the dump truck remains level and on firm ground</li> <li>• Prior to discharge, the operator should apply the parking brake and place the transmission into neutral before raising the skip</li> <li>• Operate all controls smoothly</li> <li>• Discharging must not begin until all personnel are clear of the discharging area</li> <li>• The stockpile should be formed and maintained using an excavator/ dozer.</li> </ul>	<p>an edge must be at least 1 x metre deep and a minimum of 3 x the machine’s width)</p> <ul style="list-style-type: none"> <li>• Demonstrate discharging loads to form a stockpile</li> <li>• Check to ensure the load has been fully discharged and the body is empty before receiving another load or completion of operations</li> <li>• Maintain full visibility and stability during the discharging activity.</li> </ul>
<b>Explain environmental considerations of machine use</b>		
<ul style="list-style-type: none"> <li>• Health and social reasons to reduce machine emissions</li> <li>• Government industry zero emission initiatives</li> <li>• What ‘tailpipe’ emissions are caused by IC (diesel) engines</li> <li>• Air quality and the component gases of air</li> </ul>	<p>Air Pollution:</p> <ul style="list-style-type: none"> <li>• Common construction activities that contribute to air pollution include:               <ol style="list-style-type: none"> <li>1. <i>Use of plant and vehicles on site</i></li> <li>2. <i>Land clearing and demolition</i></li> <li>3. <i>Chemicals.</i></li> </ol> </li> <li>• Consequences of air pollution:               <ol style="list-style-type: none"> <li>1. <i>Employees</i></li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• Explain the health and social reasons for reducing machine emissions</li> <li>• Discuss government industry zero emission initiatives</li> <li>• List two or more effects on human and environmental wellbeing as a result of engine emissions</li> <li>• Identify measures to reduce emissions on site</li> </ul>

<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
<ul style="list-style-type: none"> <li>• How engine emissions, including particulate matter affect air quality and the effects on human and environmental wellbeing</li> <li>• Measures to reduce emissions during operations including alternative/low emission fuels, fuel treatments and particulate filtration systems etc.</li> <li>• Efficient use of the machine and when and how minimising engine use can aid air quality and fuel savings</li> <li>• Eco-friendly oils, fluids and lubricants</li> <li>• Fuel-saving techniques for specific item of plant</li> <li>• Appropriate disposal of waste</li> <li>• Spillage procedures.</li> </ul>	<ol style="list-style-type: none"> <li>2. <i>Local Residents</i></li> <li>3. <i>Environmental.</i></li> </ol> <p>Water Pollution:</p> <ul style="list-style-type: none"> <li>• Common construction sources that contribute to air pollution include:               <ol style="list-style-type: none"> <li>1. <i>Diesel and oil</i></li> <li>2. <i>Cement</i></li> <li>3. <i>Other toxic chemicals.</i></li> </ol> </li> <li>• Consequences of water pollution:               <ol style="list-style-type: none"> <li>1. <i>People</i></li> <li>2. <i>Environmental – water contamination.</i></li> </ol> </li> </ul> <p>Noise Pollution:</p> <ul style="list-style-type: none"> <li>• Effects of noise pollution:               <ol style="list-style-type: none"> <li>1. <i>Potential hearing loss.</i></li> </ol> </li> </ul> <p>Pollution Prevention Strategies:</p> <ul style="list-style-type: none"> <li>• Air pollution:               <ol style="list-style-type: none"> <li>2. <i>Adopt hybrid technology</i></li> <li>3. <i>Use low sulphur diesel</i></li> <li>4. <i>Improve existing equipment</i></li> <li>5. <i>Wear appropriate PPE.</i></li> </ol> </li> <li>• Water pollution               <ol style="list-style-type: none"> <li>1. <i>Monitor and improve your management and disposal of site waste</i></li> <li>2. <i>Keep materials secure</i></li> <li>3. <i>Cover up all drains</i></li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• Explain appropriate disposal of waste</li> <li>• Explain spillage procedures</li> <li>• Describe the need to keep engine speed and load to a minimum whilst maintaining working efficiency.</li> </ul>



<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
	<ol style="list-style-type: none"> <li>4. <i>Keep the road and footpath to the site clean</i></li> <li>5. <i>Properly treat any chemical spillages</i></li> <li>6. <i>Ensure plant and equipment is properly maintained and operated.</i></li> </ol> <ul style="list-style-type: none"> <li>• Noise pollution               <ol style="list-style-type: none"> <li>1. <i>Use quiet equipment</i></li> <li>2. <i>Schedule work during sociable hours</i></li> <li>3. <i>Put acoustic (movable noise) barriers in place</i></li> <li>4. <i>Ensure plant and equipment is properly maintained and operated</i></li> <li>5. <i>Switch off plant when it's not in use</i></li> <li>6. <i>Ensure employees wear the correct PPE.</i></li> </ol> </li> </ul>	
<b>Explain the loading/ unloading procedures for machine transportation</b>		
<ul style="list-style-type: none"> <li>• Procedures for preparing the dump truck for loading onto a transporter</li> <li>• Traction and surface preparation requirements</li> <li>• Understanding of agreed methods of communication between the plant operator and others</li> <li>• Working at height requirements when driving onto or off a transporter bed.</li> </ul>	<p>Loading and unloading areas should be:</p> <ul style="list-style-type: none"> <li>• Clear of other traffic, pedestrians, and people</li> <li>• Clear of overhead electric cables</li> <li>• Level, to maintain stability, trailers should be parked on firm level ground</li> <li>• Ensure the vehicle or trailer has its brakes applied and all stabilisers are used</li> <li>• Working at height to be considered</li> <li>• Always check the floor or deck of the transportation.</li> </ul> <p>Loading Procedure:</p>	<ul style="list-style-type: none"> <li>• Describe the preparation required of both dump truck and transporter for loading and unloading of the dump truck</li> <li>• Explain the precautions to be taken when driving the dump truck onto and off the transporter bed</li> <li>• State the methods of communication between the plant operator and others</li> <li>• Describe the dangers of and requirements for working at height when on the vehicle bed.</li> </ul>

<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
	<ul style="list-style-type: none"> <li>• After loading the machine in the specified position, secure it in place:               <ol style="list-style-type: none"> <li>1. <i>Set the parking brake switch to the park position to apply the parking brake</i></li> <li>2. <i>Turn the key to the off position to stop the engine</i></li> <li>3. <i>Remove the key</i></li> <li>4. <i>Lock the front frame and rear frame with the articulation lock</i></li> <li>5. <i>Put blocks in front of and behind the wheels and secure machine with chains of suitable strength to prevent the machine from moving during transportation.</i></li> </ol> </li> </ul>	
<b>Carry out all end of work and shut down procedures</b>		
<ul style="list-style-type: none"> <li>• Types of safe locations, areas, and ground/terrain types where dump truck may be parked and should not be parked</li> <li>• Reasons for ensuring safe parking and unintentional movement</li> <li>• Carrying out parking, shut down and isolation requirements according to manufacturer's instructions</li> <li>• Reasons for dump truck isolation including security and non-authorized use by others</li> <li>• Use of anti-vandalism equipment.</li> </ul>	<ul style="list-style-type: none"> <li>• Shut down procedures:               <ol style="list-style-type: none"> <li>1. <i>If turbo is fitted, you must run down the engine, failing to do this will result in shortening the life of the turbo</i></li> <li>2. <i>Parking brake applied</i></li> <li>3. <i>Key removed</i></li> <li>4. <i>Door locked.</i></li> </ol> </li> <li>• Security:               <ol style="list-style-type: none"> <li>1. <i>Ensure that all vehicles are securely immobilised whenever the site is unoccupied</i></li> <li>2. <i>Anti – vandalism equipment fitted (if required).</i></li> </ol> </li> <li>• When parking the machine at the end of the shift ensure the machine is not parked:</li> </ul>	<ul style="list-style-type: none"> <li>• Describe the use of anti-vandalism equipment.</li> </ul> <p><b>The following should be observed during the practical assessment:</b></p> <ul style="list-style-type: none"> <li>• Demonstrate and explain safe parking of the dump truck – <i>dump truck is parked in a safe, designated location, clear of hazards on level, firm ground</i></li> <li>• Apply brake systems effectively</li> <li>• Demonstrate how to isolate and secure the dump truck to prevent non-authorized use and explain why this is important.</li> </ul>



# Training Standard

<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
	<ol style="list-style-type: none"><li>1. <i>Site roads</i></li><li>2. <i>Pedestrian routes</i></li><li>3. <i>Soft/ wet/ steep ground</i></li><li>4. <i>Access/ egress routes from buildings.</i></li></ol>	

## Additional information about this standard

### Emphasis to be placed on the following topics:

- Reversing procedures - All reversing and safety aids to be fully functional – use of signaller mandatory on most working areas
- Stability with raised bodies or uneven ground - Checking ground prior to tipping – tipping body slowly (weight transfer) – procedure for tipping on inclines.

**Note:** *The listed training content should not be considered exhaustive and subjects may be added to reflect the individuals' working environment.*

To identify a machine within this category, a typical articulated dump truck would normally have the listed features and be used within the described characteristics.

### Category features:

- Articulated two-piece chassis with the front section containing the driving position; power, hydraulic and electrical units, and rear section containing the body
- Multi-axled chassis with mechanical / hydraulic transmission
- Rear-tipping sided body to carry materials.

### Category characteristics:

- Able to travel in forward and reverse and change direction during travel by articulating the chassis
- Can travel and operate on uneven and loose ground and slopes
- Receives loads by external means, and transports up to long distances
- Deposits the load (in most cases) by raising the body.

### Theory Resource:

- PUWER 1998 Regulations
- HSE GS6
- Codes of Practice
- Operator's manual
- Specifications for types of Articulated Dump Trucks.
- Site traffic management requirements
- Industry Guidance.

### CPCS Endorsements:

- **Endorsement A:** Up to 15 tonnes – can carry loads up to this weight
- **Endorsement B:** All sizes – can carry unlimited loads (current types can accommodate loads up to 50 tonnes)

## Measure of this training standard

The candidate is required to pass the following tests;

### CPCS Theory Test: Articulated dump trucks (All endorsements) –

- Course Instructors can use the published CPCS Theory Questions during training to confirm that the learner is able to demonstrate the required knowledge understanding and retention to undertake the CPCS Standard Technical Theory Test.

### CPCS Practical Test: Articulated dump trucks (Specific Endorsement)



# Training Standard

- Course Instructors can use the published CPCS Practical Test criteria during training to confirm that the learner is able to demonstrate the required practical ability and understanding to undertake the CPCS Standard Technical Practical Test.

**Note** - Course Instructors can find the current versions of the CPCS Technical Test Theory Questions and CPCS Technical Practical Test criteria via NOCN Job Cards website and are subject to review, ensure you are using the most current version as printed versions are uncontrolled.

[www.nocnjobcards.org](http://www.nocnjobcards.org)