

# Construction Skills Certification Scheme

## Candidate Pack for CSCS Articulated Dumper

Please read this document carefully. Further information and clarification may be obtained from the CSCS Operations Unit, phone 01 533 2500

### Guidance Notes for Candidates

The following documents are also attached:

- Part 1 – Skills Self-Analysis
- Part 2 – Applicant Details
- Part 3 – Endorsement of Operating Competence
- Part 4 – Practical Test Criteria

### Aim of Programme

The CSCS plant training and assessment programme enables trained construction plant operators to gain recognition for their achievements by the way of certification, and provide an opportunity for participants to demonstrate their skills, knowledge and attitudes associated with plant operations, which provides suitable certification.

### Candidate Profile

Candidates for this programme must:

- Have at least six months full time experience operating as a trainee Articulated Dumper operator in construction in accordance with the 5<sup>th</sup> Schedule – of the Safety, Health and Welfare at Work (Construction) Regulations 2013 – S.I. No. 291 of 2013. The six months experience must be within the last two years.
- Possess a valid 'Safe Pass' registration card
- Be at least 18 years of age

Note: The above items must be verified by the current or previous employer (Part 3 of this pack)

### Application Requirements

- Approved Training organisations must send the Candidate Pack and Course Notes to the Candidate at least five days prior to the course date.
- Sections A B and C of Part 2 need to be completed by the applicant with Part 3 completed by the employer.
- Section C of part 2 must list at least six months full time experience operating as a trainee Articulated Dumper operator.
- Part 1 Skills Self-analysis, Part 2 - Applicant Details and Part 3 - Endorsement of Operating Competence must be completed and submitted to the chosen Approved Training Organisation at least one-day prior to attending the one-day training and assessment programme. Failure to do so will result in the candidate being unable to complete the programme.

**Candidates must bring with them on the day:- a passport sized photograph, their Safe Pass card plus safety helmet, safety boots, reflective 'hi-viz' jacket and gloves.**

# Construction Skills Certification Scheme

## Candidate Pack for CSCS Articulated Dumper

### One Day Programme Content

#### Induction

Registration and induction will be undertaken at the start of the day. Candidates **must** present their Safe Pass card and photograph to the assessor. Parts 1, 2 and 3 must be already submitted to the Training Organisation.

#### Skills Validation Session

Candidates will undertake a minimum of a 3 hour Skills Validation Session with the course instructor. The Skills Validation Session cannot give skills and knowledge not held, but allows trained operators to eliminate 'bad habits' gained on site.

Please note that the instructor has the right to refuse the candidate access to the test if they have demonstrated dangerous operating skills that contravene any part of the Safety, Health and Welfare Regulations.

#### Theory Test

On completion of the Skills Validation Session, candidates are allowed 45 minutes to undertake a multi-choice question paper. Questions will be based on the following:

- Legislation and regulations
- Employer and employee responsibilities
- Safe working practices
- Machine components and functions
- Correct operating techniques
- Pre-use checks and basic maintenance
- Road travel (where relevant)
- Types and characteristics of materials and loads
- Site safety
- Shut down and securing procedures
- 

Subjects that the questions will be based on will be covered during the Skills Validation Session.

To be successful on the theory test, candidates must achieve a minimum of 70% of the total available marks. Candidates who achieve a minimum of 85% will be awarded a credit.

#### Practical Test

On the test the candidate will demonstrate tasks with the dumper. The tasks to be undertaken, equipment required and a sample grading sheet is contained in Part 4 of this pack – Practical Test criteria. Part 4 of this pack details the equipment and resources needed for the test and the tasks the candidate will be expected to carry out with an Articulated Dumper.

The grading sheet is divided into essential items and scored marks. Scored marks allow a limited number of minor errors to be made. To succeed, the candidate must achieve all essential items and not exceed the maximum score. Candidates who score no penalty marks as well as all the essential marks will be awarded a credit. The practical test has a maximum time of 1 hour and 15 minutes in which all tasks must be completed.

# Construction Skills Certification Scheme

## Candidate Pack for CSCS Articulated Dumper

### Feedback and Certification

If a candidate meets the required standard, the approved training organisation will send the relevant assessment documentation to SOLAS for certification and registration. The CSCS card is printed and posted to the training provider for distribution. A QQI certificate will also be awarded as a result of a pass on the one-day programme.

Candidates who achieve a credit in the theory test **and** practical test will be awarded an overall credit.

Candidates who are referred will receive written feedback from the assessor, and may be advised to undertake further training and/or site experience.

If a candidate is successful in the theory but not the practical part of the test, then they may re-attempt just the practical part. If the candidate has not been successful in the theory test, then they may not attempt the practical test.

This concession may only occur if the candidate returns to the same approved trainer and training organisation within 9 months. If they choose to go to a different organisation, they will have to do both the practical and theory parts again.

For learners who do not reach the required standard, a period of 5 days must elapse before they can retake the test.

### Registration Card Duration

CSCS registration cards are valid for five years and can be renewed up to six months before the expiry date

### Cancellation of Certificates and Cards

Where it is discovered that the information provided by the Candidate was incorrect or the programme was not delivered in accordance with SOLAS specifications the Certification and registration card may be withdrawn and the relevant authorities notified.

**PARTICIPANT DATA PROTECTION NOTICE**

**1. PERSONAL DATA COLLECTED AND OBTAINED**

This Data Protection Notice ("**Notice**") sets out the basis on which SOLAS ("**SOLAS**", "**we**", "**our**" or "**us**") of Block 1, Castleforbes House, Castleforbes Road, Dublin 1 will use the personal details ("Personal Data") you will provide when completing the participant application form (the "**Form**") to be registered as a CSCS/QSCS cardholder. This Notice also details how SOLAS will process your Personal Data for the purpose of assessing your Form and, if successful, issuing your CSCS/QSCS card to you ("**Card**"). The Personal Data we obtain from you will be held by SOLAS as a controller.

SOLAS will collect and process the Personal Data that you provide in the Form (e.g. name, contact details, PPSN, address, photograph, occupation and employer details.).

**IMPORTANT:** where you provide Personal Data about other individuals (eg your existing/previous employer or endorsers), you agree that you are responsible for ensuring that such individuals know their Personal Data will be used by SOLAS accordance with this Notice.

**2. HOW AND WHY WE PROCESS YOUR PERSONAL DATA**

This section details how ("**legal basis**") and why ("**purposes**") we process your Personal Data:

**Legal basis:** it is necessary to process your Personal Data to enter into and perform our contract with you including for the following purposes: (a) to process your Form; (b) to issue you with a Card; (c) to verify your Card on an ongoing basis; (d) to renew your Card where you ask us to do so; and (e) to respond to you when we receive any correspondence from you. **IMPORTANT:** If you do not provide us with your Personal Data so that we can process it for the above purposes, we will not be able to assess or process your Form, issue you with or renew your Card and/or communicate with you as necessary in relation to your Form and/or your Card.

**Legal basis:** it is also necessary to process your Personal Data for the purpose of complying with legal obligations to which we are subject including to fulfil our statutory functions.

**3. DISCLOSURE OF YOUR PERSONAL DATA**

We may disclose some or all of your Personal Data to the following parties: SOLAS business units, SOLAS agents or service providers including CSCS/QSCS trainers, your existing or potential employers, government and state authorities including in particular the Construction Industry Federation (CIF), Credit Card Systems Ireland Ltd and Quality and Qualifications Ireland. We may also disclose your Personal Data to third parties if we are under a legal duty to disclose or share your Personal Data in order to comply with any legal or regulatory obligation or request or to perform a public function.

**4. KEEPING YOUR PERSONAL DATA**

We will keep your Personal Data for the period for which your Card is valid and/or renewed and for a period of 7.5 years from when your Card expires and/or is not renewed. In some cases, we will need to retain your Personal Data for longer periods for compliance with legal obligations imposed on us or where we are a party to legal proceedings with you, and to ensure you a continued client service. Such Personal Data will be securely retained in line with the SOLAS records retention and disposal Procedure.

**5. YOUR RIGHTS**

This subsection sets out the rights which you have to address any concerns or queries with us about our processing of your Personal Data:

Right	Further Information
Right to be Informed	<ul style="list-style-type: none"> <li>You have the right to know whether your Personal Data are being</li> </ul>

	processed by us, how we use your Personal Data and your rights in relation to your Personal Data. We comply with this by way of this Notice.
<b>Right of Access</b>	<ul style="list-style-type: none"> <li>You have the right to request a copy of the Personal Data held by us about you.</li> <li>We will only charge you for making such an access request where we feel your request is unjustified or excessive.</li> </ul>
<b>Right to Rectification</b>	<ul style="list-style-type: none"> <li>You have the right to request that we amend any inaccurate Personal Data that we have about you.</li> </ul>
<b>Right to Erasure</b>	<ul style="list-style-type: none"> <li>You have the right to ask us to erase your Personal Data where:             <ol style="list-style-type: none"> <li>it is no longer necessary to perform your contract with us;</li> <li>you object to the processing and we have no overriding legitimate grounds;</li> <li>your Personal Data has been unlawfully processed; or</li> <li>it must be erased to comply with a legal obligation.</li> </ol> </li> </ul>
<b>Right to Restriction of Processing</b>	<ul style="list-style-type: none"> <li>You have the right to ask us to restrict processing your Personal Data in the following situations:             <ol style="list-style-type: none"> <li>where you contest the accuracy of your Personal Data;</li> <li>where the processing is unlawful and you do not want us to delete your Personal Data; or</li> <li>where we no longer need your Personal Data for the purposes of processing but you require the data in relation to a legal claim.</li> </ol> </li> <li>When you exercise this right we may only store your Personal Data.</li> <li>We may not further process the data unless you consent or the processing is necessary in relation to a legal claim or to protect the rights of another person or legal person or for reasons of important public interest.</li> <li>We will inform you before the processing restriction is lifted.</li> </ul>
<b>Right to Data Portability</b>	<ul style="list-style-type: none"> <li>You may request us to provide you with your Personal Data which you have given us, in a structured, commonly used and machine-readable format and you may request us to transmit your Personal Data directly to another controller, where this is technically feasible. This right only arises where:             <ol style="list-style-type: none"> <li>we process your Personal Data on the legal basis that it is necessary to perform our contract with you; <b>and</b></li> <li>the processing is carried out by automated means.</li> </ol> </li> </ul>

You can exercise any of these rights by submitting a request to **the Data Protection Officer, SOLAS, Castleforbes House, Dublin 1**. We will provide you with information on any action taken upon your request in relation to any of these rights without undue delay and at the latest within one month of receiving your request. We may extend this by up to 2 months if necessary, however we will inform you if this arises.

You have the right to lodge a complaint with the Data Protection Commission with regards to our processing of your Personal Data.

## 6. CHANGES TO THIS NOTICE

We may amend this Notice from time to time, in whole or part, at our sole discretion. Any changes to this Notice will be posted on the SOLAS CSCS/QSCS website at <http://www.solas.ie/Pages/CSCS.aspx>

If at any time we decide to use your Personal Data in a manner significantly different from that stated in this Notice, or otherwise disclosed to you at the time it was collected, we will notify you by e-mail, and you will have a choice as to whether or not we use your information in the new manner.

## 7. CONTACT US

If you have questions or concerns about this Notice, please contact the SOLAS Data Protection Officer at SOLAS Data Protection Officer, SOLAS, Castleforbes House, Dublin 1.

# Construction Skills Certification Scheme

## Skills Self-Analysis CSCS Articulated Dumper- Part 1

### Introduction

The aim of this form is to allow applicants to measure their knowledge and experience on the safe use of an articulated dumper against the questions below. This is to ensure that all those attending the One-day Trained Operator Programme have sufficient skills and knowledge to comfortably meet the required standards. This section **must** be completed and returned to the chosen Approved Training Organisation prior to attending the one-day training and assessment programme.

### Instructions to the Applicant

Please take your time and answer all questions honestly, as dishonest answers mean that you may be un-successful on the course programme. On completion, add up the total number of questions you have scored as 'yes' and refer to the Assessment Grading which will analyse your knowledge and experience

### Assessment Questions

Please answer **all** questions as indicated:

	Yes	No
1. can you identify and use all the controls correctly?	<input type="checkbox"/>	<input type="checkbox"/>
2. can you extract information from the operators handbook?	<input type="checkbox"/>	<input type="checkbox"/>
3. do you correctly carry out all pre-use and running checks?	<input type="checkbox"/>	<input type="checkbox"/>
4. can you correctly configure the dumper for site and road travel?	<input type="checkbox"/>	<input type="checkbox"/>
5. have you travelled over differing types of terrain including rough, undulating ground whilst loaded and unloaded?	<input type="checkbox"/>	<input type="checkbox"/>
6. can you travel up & down steep substantial slopes correctly loaded and unloaded?	<input type="checkbox"/>	<input type="checkbox"/>
7. are you able to manoeuvre the dumper in very confined and restricted areas?	<input type="checkbox"/>	<input type="checkbox"/>
8. can you correctly position and set the dumper to receive and discharge loads?	<input type="checkbox"/>	<input type="checkbox"/>
9. do you know where you (the driver) must be when being loaded?	<input type="checkbox"/>	<input type="checkbox"/>
10. can you explain why a dumper should never be overloaded?	<input type="checkbox"/>	<input type="checkbox"/>
11. do you know why soils must be segregated when forming stockpiling materials/soils?	<input type="checkbox"/>	<input type="checkbox"/>
12. do you know the minimum distance that should be kept from a trench and why?	<input type="checkbox"/>	<input type="checkbox"/>
13. do you know what the recommended minimum distance is when working near power lines?	<input type="checkbox"/>	<input type="checkbox"/>
14. do you know what the correct procedures are before and after tipping a load?	<input type="checkbox"/>	<input type="checkbox"/>
15. can you explain the reason for having a 'bermed' or raised edge near a trench?	<input type="checkbox"/>	<input type="checkbox"/>
16. do you know what the correct procedures are when placing or unloading the dumper onto or from a vehicle bed or trailer?	<input type="checkbox"/>	<input type="checkbox"/>
17. can you shut down and secure the dumper correctly after work?	<input type="checkbox"/>	<input type="checkbox"/>

Candidate Name: .....

Yes total \_\_\_\_\_

Date: .....

## Construction Skills Certification Scheme

### Skills Self-Analysis CSCS Articulated Dumper - Part 1

#### Assessment Grading

##### If you have scored 11 – 17

You appear to have a good understanding of articulated dumper operations to comfortably participate on the trained operator course programme.

##### If you have scored 8 – 10

Your understanding of articulated dumper operations is limited and we advise that you acquire further knowledge before attending the trained operator course programme. Remedial training and further site experience is advised.

##### Less than 8

Your supposed understanding of articulated dumper operations is very limited and we strongly advise you not to attend the course until you have undertaken remedial or full training.

#### Assessment Requirements

Should a candidate have any particular assessment requirements i.e. need a translator or reader/writer or any other form of special needs, the approved training organisation **must** be informed well in advance of attending the one day programme so that the appropriate help may be sourced.

Information regarding a candidate's particular requirements will be treated with the strictest confidence by the approved training organisation.

#### REMINDER

Candidates must bring with them on the day:

- Passport sized photograph .....
- Safe Pass card .....
- Safety helmet .....
- Safety boots .....
- Reflective 'hi-viz' jacket .....
- Gloves .....

Further information and clarification may be obtained from the CSCS Unit Office or phone 01 5332500

### Application Details - CSCS Articulated Dumper - Part 2

## Construction Skills Certification Scheme

### Section A Applicant Details

Surname ..... Forenames.....

Address .....

.....

..... Date of Birth: .....

Tel: ..... PPS Number .....

Safe Pass Expiry Date: .....

### Candidate Profile

Candidates for this programme must:

- Have at least six months full time experience operating as a trainee articulated dumper operator in construction in accordance with the 5<sup>th</sup> Schedule – of the Safety, Health and Welfare at Work (Construction) Regulations 2013 – S.I. No. 291 of 2013. The six months experience must be within the last two years.
- Possess a valid ‘Safe Pass’ registration card
- Be at least 18 years of age

### Section B Applicant Declaration

I confirm that the information detailed in this application, and any submitted information is valid, genuine and correct.

- I have as least six months full time experience operating as a trainee articulated dumper operator in construction within the last two years
- I am in possession of a valid ‘Safe Pass’ registration card
- I am at least 18 years of age

Please sign

Date: .....

### Application Details CSCS Articulated Dumper - Part 2



# Construction Skills Certification Scheme

## Section C Applicant Experience

Please briefly list work carried out with an Articulated Dumper for at least six months, including dates and location of work.

Dates from/to	Machine make & model	Location and brief details of work done
<i>Example</i> 9 Jan 14- 22 May 2015	Volvo A25	<i>Barron Homebuilds, Kilty Street, Dublin.                      Moving spoil from excavations to spoil heap</i>
		(continue on a separate sheet if needed)

### Endorsement of Operating Competence – Articulated Dumper - Part 3

## Construction Skills Certification Scheme

Applicant Name.....

This endorsement of operating competence must be completed by an existing or previous employer. This part can only be completed by a supervisor or line manager of the employer.

The endorsing individual should only initial the statements where they can confirm that the applicant can carry out the work. Some endorsements may require the initials of more than one endorser. Copies of this form may be made if there are more than two endorsers signing.

Each statement must be initialled by the endorser. The applicant can only be considered competent providing **all** statements are signed by one or more endorsers in the Endorsers details section.

I consider that the above named applicant is able to competently:	Initials
1. Check, inspect and maintain an articulated dumper for efficient and safe use under construction site conditions	
2. Safely operate and control an empty and fully laden articulated dumper over varying terrain and inclines	
3. Ensure loads are safe and within the capacity of the articulated dumper	
4. Discharge materials into trenches and/or form stockpiles using all safety precautions	
5. Manoeuvre and position the articulated dumper for receiving and discharging loads	
6. Park, shut down, secure and leave the articulated dumper in a safe condition	
7. Follow given instructions and manufacturers requirements when working with the articulated dumper	

<b>Endorsers Details</b>	
Full Name: .....	
Company name and address: .....	
.....	
Position: .....	Contact Tel no: .....
Relationship to Applicant.....	
<i>The named individual signing this section must be in a supervisory or managerial position, nominated by the employer organisation.</i>	
<b>Declaration</b>	
We/I the employer confirm that:	
<ul style="list-style-type: none"> <li>• the applicant has as least six months full time experience operating as a trainee articulated dumper operator in construction within the last two years</li> <li>• the applicant is in possession of a valid 'Safe Pass' registration card</li> <li>• the information detailed in this application, and any submitted information is valid, genuine and correct.</li> </ul>	
Signature	Date:

### Practical Test Specifications Articulated Dumper - Part 4

## Construction Skills Certification Scheme

### Equipment and Resources

- Serviceable rear tipping articulated chassis type dumper, equipped with a R.O.P.S. and seatbelt, with the operator's manual. The Dumper must meet all legislative requirements and have a load capacity of at least 10 tonnes.
- A means of loading the dumper. i.e. loader, excavator, the operator must be competent and hold a relevant CSCS card where applicable
- A designated tipping area, being a trench or an edge, at least 1.0 metre deep, and a minimum of 3 x the width of the dumper, with appropriate stop-block/edge protection.
- A stockpile of material for loading
- A driving area which must include:
  - uneven, rough terrain,
  - a slope(s) not less than 18% (1:5.5) incline and at least 1.5 times the length of the dumper. The incline must be either one ramp with a sufficient manoeuvring area to turn on top or two ramps with a level area at the top to halt the dumper
  - a straight run at least 50 metres in length.
- Cones/materials etc to create restrictions for travelling and manoeuvring.

### Tasks

The Candidate needs to:

1. Carry out full pre-start and running checks as required by the manufacturer.
2. Prepare the dumper for travel, and drive to the loading area to receive loads. The route must include:
  - Passing through a restriction being no more than the width of the dumper plus 800mm, in a forward and reverse direction,
  - Stopping and restarting on the incline in the up direction,
  - Stopping and restarting on the incline in the down direction,
  - Travelling over uneven, rough terrain.
3. When fully laden, travel the route as in task 2. Whilst travelling in the down direction on the incline, stop and re-start in the opposite direction for a minimum distance of 5 metres.
4. Discharge the load into the excavation or edge.
5. Travel the dumper back to the loading area to receive a fresh load.
6. Whilst loaded, reverse the dumper in a straight line for a minimum of 30 metres.
7. Travel to the tipping point and discharge the load. This load is to be adjacent to the previous tipping point.
8. Repeat tasks 5 & 7.

## Construction Skills Certification Scheme

9. Travel the dumper to receive a fresh load. Form a stockpile consisting of 3 x loads
10. Travel to a park position, shut down and secure.

### Time

The candidate must complete all tasks within 1 hour

### Example of marking points

1. Carry out pre-start and running checks (verbal questions correctly answered if engine hot)
2. Clear any restrictions encountered whilst travelling
3. Keep clear of all hazards whilst travelling
4. Travel the dumper correctly on the inclines in a laden and unladen state
5. Apply the parking brake prior to tipping the load
6. Select neutral prior to tipping the load
7. Fully lower the body prior to moving away from the tipping point
8. Correctly carry out shut down procedures
9. Conform with legislation and manufacturer's instructions
10. Complete test within the given time

**SOLAS**

An tSeirbhís Oideachais Leanúnaigh agus Scileanna  
Further Education and Training Authority



# Construction Skills Certification Scheme

## Safe Operation of Earthmoving Plant



### Articulated Dumper

# **Construction Skills Certification Scheme**

## **Safe Operation of Earthmoving Plant**

### **Articulated Dumper**

Published by  
Construction Skills Certification Scheme Unit

First published 2008

The Construction Skills Certification Scheme Unit has made every effort to ensure that the information contained within this publication is accurate. Its content should be used as guidance material and not as a replacement for current regulations.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission in writing from SOLAS.

Printed in 2013



# Receipt

I have received a copy of the CSCS Safe Operation of Earthmoving Plant – Articulated Dumper notes and agree to read it carefully and comply with all the guidance and advice on safety and good working practices which it contains.

Signature	
Full Name	
Date	

Name of Company or Organisation	
Address	



# Contents

Introduction	1
1. Safety, the law and you	2
2. Accident prevention and control	5
3. Safe use of Articulated Dumpers	7
4. Operator servicing and maintenance duties	10
5. Articulated Dumper safety checklist	12
<b>Appendix</b>	
A Recommended signals	14

## **Acknowledgements**

Extracts from BS 7121: Part 1 are reproduced with the kind permission of the British Standards Institution. Complete copies can be obtained by post from B.S.I. Sales, 389 Chiswick High Road, London W4 4AL.

Extracts and illustration by kind permission of CITB-ConstructionSkills

## Introduction

This guide for the safe operation of Articulated Dumpers has been produced for plant operators. It sets out to provide guidance in an easy to read form, paying particular attention to the duties of the Articulated Dumper operator. It covers a wide range of operating conditions and activities, and aims to promote safe working practices which comply with current legislation and the precautions to be taken if accidents are to be avoided.

Specific sections on the preparation and operation of Articulated Dumpers contain readily accessible information in a checklist format with a simple **Do's** and **Don'ts** message.

This guide complements manufacturers' instructions and recommendations with regard to:

- general safety legislation and safe operating procedures for Articulated Dumpers
- safe and efficient use of Articulated Dumpers
- basic operator maintenance.

Manufacturer's operating manuals must always be used for the relevant machine and referred to as and when required. The manufacturer of the machine has no direct control over the operation of the machine – *it is the responsibility of the operator to work safely at all times.*

This guide does not attempt to try to cover every aspect of working conditions when using Articulated Dumpers and does not cover every make and model of Articulated Dumper available.

## 1. Safety, the law and you

This section provides guidance for employers, employees and the self-employed who use mobile plant equipment. Minimum legal requirements are outlined which relate to the safe use of mobile plant. Various Acts of the Oireachtas and statutory requirements, examples of which are listed below, provide the definitive legislation to be followed.

### Legislation

Legislation to be followed includes the Safety, Health and Welfare at Work Act 2005 (SHAWWA). Parts of the Act and other regulations connected with the operation of plant include:

- *General Duties of Employer*
- *General Duties of Employee and Persons in Control of Places of Work*
- Protective and Preventive Measures
- Safety Representatives and Safety Consultation
- The Health and Safety Authority
- Offences and Penalties

*All Health and Safety rules also apply to self-employed persons.*

### Regulations and Codes of Practice

Regulations made under an Act of the Oireachtas are mandatory

#### **Safety, Health and Welfare at Work (Construction) Regulations 2013 S.I No. 291 of 2013 include**

- Design and Management
- General Duties of Contractors and others
- General Safety Provisions
- Excavations, Shafts, Earthworks, Underground Works and Tunnels
- Cofferdams and Caissons
- Compressed Air
- Explosives
- General Health Hazards
- Construction Work on or Adjacent to Water
- Transport, Earthmoving and Materials-Handling Machinery and Locomotives
- Demolition
- Roads
- Construction Site Welfare Facilities
- SCHEDULE 4 - Safety Awareness Scheme
- SCHEDULE 5 - Construction Skills Certification Scheme
- SCHEDULE 6 - Procedure for Selection of Site Safety Representatives
- SCHEDULE 7 – Machinery

- **The Safety, Health and Welfare at Work (General Application) Regulations 2007 S.I. No. 299** include:
  - Workplace and Work Equipment
  - Use of Work Equipment
  - Personal Protective Equipment
  - Manual Handling of Loads
  - Display Screen Equipment
  - Electricity
  - Work at Height
  - Control of Noise at Work
  - Control of Vibration at Work
  - Safety Signs at Places of Work
  - First-aid
  - Explosive Atmosphere at Places of Work

The introduction of the above legislation, which protects people at work and those who may be affected by their actions, has helped to improve our working environment.

The legislation concerns employers, employees and the self-employed, and makes people responsible for their actions, as well as their omissions, including others affected by their actions.

Regulations made under an Act of the Oireachtas are mandatory and may be supplemented by an Approved Code of Practice (ACoP), which advises organisations and their staff on how to comply with the law.

If the advice of the ACoP is followed then generally you are meeting the requirements and complying with the law. If you, or your organisation, are prosecuted for breaking a health and safety law and it is proven you did not follow the advice in the ACoP, you must prove you have complied with the law in another way.

*Penalties can be imposed on persons who are found guilty of a Health and Safety Offence (on summary conviction), which may include:*

- a fine
- a term of imprisonment.

*Penalties may be imposed for:*

- Contravening any of the relevant statutory provisions
- disobeying a Prohibition notice
- unauthorised disclosure of information
- a breach of the conditions of a licence.

## Duties of personnel

It is in the interest of every employer and employee involved in the use of plant and equipment to promote safety within their workplace.

## Legal duties of employers

*'Every employer shall ensure, so far as is reasonably practicable, the safety, health and welfare at work of his or her employees.'* \*

Employers have a duty to:

- provide a safe working environment that is without risk to health
- provide and maintain safe plant and equipment and ensure it has been designed, constructed, tested and examined to be safe
- carry out risk assessments and provide their employees with clear and appropriate information on any risks that exist in the workplace and how they intend to reduce those risks
- prepare a safety statement based on the risk assessment
- provide suitable protective clothing and equipment (PPE) to ensure the health and safety at work of their employees. *'Every employer shall ensure that any measure taken by him or her relating to safety, health and welfare at work do not involve financial cost to his or her employees'* \*
- provide employees with any necessary information, including legal requirements, adequate instruction, training and supervision *'in a form, and manner and, as appropriate, language that is reasonably likely to be understood by the employee concerned'* \*
- obtain the services of a competent person for Health and Safety purposes
- provide adequate welfare facilities

**\*Source:** *Safety, Health and Welfare at Work Act 2005*

## Legal duties of employees

In general terms, the law says that you must:

- be responsible and as safe and careful as possible in your work, so as not to put the health and safety of yourself or others at risk, including members of the public
- co-operate with and assist your employer or any other person, as far as necessary, to enable them to carry out their legal duties in health and safety
- not interfere with or misuse any safety devices or equipment
- not intentionally or recklessly interfere with anything provided in the interest of health, safety and welfare
- follow your employer's procedures and the manufacturer's instructions which apply to the care and safe operation of the machine you are responsible for
- inform your employer, without unreasonable delay, of any work situation that you are aware of which presents a risk to the health and safety of yourself and others
- report (without delay) any defects in plant and equipment which might endanger safety.

*All Health and Safety rules also apply to self-employed persons.*

## 2. Accident prevention and control

Accidents are unplanned, unwanted events which can injure or kill people. Industry also pays a price with loss of working hours, loss of production and damage to plant and equipment and extra costs.

Remember that **you** as an operator of plant equipment **are the key to safety**: good safety practices not only protect you but also protect others around you.

Accidents can be caused by unsafe working practices and attitudes of people in the workplace. By following a safety programme and adopting safe working practices, unsafe conditions can be avoided. This contributes to improving safety in the workplace.

Prevention can remove or reduce the likelihood of an accident by following some basic rules, for example:

### Do

- Protect yourself – wear all protective clothing and personal safety equipment issued to you or required by your working conditions
- Follow a safety programme – understand and follow safety procedures when working on site and using plant and work equipment
- Assess your ability to do the job – ensure you are fully aware of the job requirements and how they need to be carried out
- Stay alert – know where to get help. Know the first aid and emergency procedures
- Make yourself aware – study the manufacturer's operator's manual for using your plant and equipment. If the manual is not provided, ask your supervisor or the suppliers of the plant/equipment to supply one
- Report faulty/unsafe plant or equipment and any dangerous occurrences and incidents
- Travel the plant equipment safely so as not to affect its stability
- Be careful – human error is caused by carelessness, fatigue, preoccupation and lack of concentration. Ensure you watch out for others who are affected by your actions
- Ensure all personal injuries, no matter how slight, are reported and entered in the accident book (or equivalent)
- Take advantage of any training programme offered by your employer or contractor. You are never too old to learn new practices or techniques.

## Don't

- Use plant or work equipment that you have not been trained to use
- Overload any plant or work equipment either by lifting or loading
- Operate plant and work equipment unsafely or at unsafe speeds
- Throw or drop objects from plant or work equipment
- Attempt to carry out work on moving parts of plant or work equipment with the safety guards removed
- Indulge in horseplay on plant or work equipment
- Attempt to use any type of plant or work equipment if you are under the influence of drugs, alcohol or any other substance which affects your health or judgement
- Ignore warning instructions or safety signs.



### **3. Safe use of Articulated Dumpers**

If you are an operator of an Articulated Dumper you are legally required to be responsible for your own safety and that of others who are working nearby.

Common sense plays a major part in the safe operation and working of an Articulated Dumper. All Articulated Dumper operators should be aware of dangers and hazards, which could injure them or other site workers nearby, or cause damage to the vehicle.

Articulated Dumper operators are responsible at all times for the safety of their vehicle and its load.

Simple measures taken by yourself, your employer and by following some basic rules can reduce the possibility of risk. For example:

#### **Do**

- Comply fully with instructions given by site managers and supervisors
- Follow the manufacturer's instructions (operator manuals) for the machine you are operating
- Take safety precautions when using your machine prior to, during and after work
- Operate within the machine's capabilities.

#### **Don't**

- Operate any machine unless you have received appropriate training and are authorised to do so
- Ignore hazards
- Misuse, tamper or interfere with your machine and any associated safety equipment provided to you
- Endanger your own health and safety, or that of anyone else, through being negligent.

#### **Before use**

- Always check that the Articulated Dumper is serviceable and safe to use
- Carry out daily checks and maintenance
- Check working areas for hazards and obstacles, which could affect Articulated Dumper operations.

## During Operation

### Do

- Look out for people working and hazards such as trenches, potholes and cables
- Face the machine and use the steps and handholds when getting on or off. Ensure you maintain three points of contact
- Wear the seat belt.
- Drive and operate at a speed consistent with site conditions
- Keep a safe distance from a tip edge and use an approved stop block or berm of material before tipping over an edge
- Keep a safe distance from other plant or vehicles
- Before leaving the machine unattended: drive clear of the working area; stop and apply brakes; disengage drive and controls; stop engine and remove ignition key
- Keep your boots as clean as possible in wet/muddy conditions. Brakes become less effective in these conditions. Wet/muddy boots can cause your feet to slip off the foot controls at vital moments.

### Don't

- Let the machine's transmission shift up and down between gears when travelling uphill
- Indulge in games or horseplay
- Reverse unless you can see it is safe to do so
- Run the engine in an enclosed area for long periods.

### After Use

- Park a safe distance from excavations or vertical faces
- Top up the fuel tank
- Park on firm, level ground; apply parking brake; ensure drive is in neutral
- Stop engine and shut down in accordance with the manufacturer's recommendations
- Climb down using the handholds and foot steps provided. **Never jump.**

## Additional precautions to be followed

### Articulated Dumpers

#### Do

- Drive carefully taking into consideration ground and road haul conditions
- Drive carefully, taking into consideration the different handling characteristics of a loaded Articulated Dumper
- Slow down and avoid taking sharp turns with Articulated Dumpers
- Observe speed limits and other site restrictions
- Give way to loaded Articulated Dumpers
- Slow down and select the correct gear and use great care when travelling up and down ramps and on embankments. When travelling downhill, use the retarder to assist braking
- Apply the parking brake and disengage drive before tipping
- Take care when loading in confined areas as manoeuvring space will be restricted
- Avoid parking a loaded machine
- Be aware of any overhead restrictions or electric cables in the tipping area, which could be a potential danger when the body is raised
- When tipping the load:
  - park the machine straight with the load unit on flat ground before raising the body to tip
  - ensure nobody is close to the machine
  - stop and lower the body on to the chassis before driving away

**Note:** *The tipping control lever to raise or lower the body should be kept in the float position at all times when not in use. The tipping control should only be used with the Articulated Dumper stopped and the drive in neutral*

- Keep reversing distance to a minimum
- Use the services of a signaller/banksperson to assist you when reversing or tipping a load into an excavation
- Take into account that weather can affect the ground conditions, the machine could sink into the ground or the wheels could freeze solid to the ground. Take effective measures to counteract the possibility of this happening.

## Don't

- Let anyone stand within the steering arc of an Articulated Dumper when the engine is running
- Remain in the cab if there is insufficient overhead protection
- Allow loading over the cab of your machine
- Travel with the body raised, except when moving forwards to clear materials after tipping
- Try to tip when standing on severe cross slopes
- Allow passengers in the cab unless an authorised fitted seat is provided
- Allow the Articulated Dumper body to be overloaded
- Drive too close to banks or excavations
- Work under a raised body unless a safety bar or prop has been fitted.

***Road travel:*** before taking an Articulated Dumper on public roads, ensure the machine is prepared for road travel, complies with all road traffic regulations and obey all driving laws!

## 4. Operator servicing and maintenance duties

The Operator's contribution to maintenance of the machine is of prime importance.

It is essential that adequate time and facilities are provided to carry out maintenance of your machine. Supplies of materials and substances (oils, greases, coolants etc.) should always be to hand, with suitable provision for storing them.

All maintenance should be carried out in accordance with the manufacturer's recommendations and your company's procedures.

Whatever system of maintenance and servicing is used, all operators have the responsibility to ensure the machine is in a safe condition for work.

**Pre-use checks:** It is estimated that the recommended pre-use checks of many manufacturers would include the checking and adjustments of the following:

- fluids – engine oil, coolant, transmission, brake, hydraulic
- tyres – rims, wheel nuts, wall and tread, pressures
- hydraulic pipe/hose condition, security leakages
- hydraulic rams condition, security, leakages
- lights, warning and safety appliances, such as reversing devices, horn protective guards
- ROPS/FOPS, seat and seat belts, driving position, mirrors
- controls, gauges, warning lights and other types of safety devices.

### Running checks

- Hot/Cold starting methods
- Function of steering/brakes/hydraulic/electrical and mechanical systems
- During cold weather and extremely hot conditions always be aware of the operating temperature of the machine.

### Maintenance and servicing schedules

Apart from daily pre-start checks, servicing schedules are usually based on machine running hours, therefore regular checks need to be kept on the machine's hour-meter reading.

Operators are likely to carry out only basic servicing on their machine in accordance with the manufacturer's recommendations and company procedures. In addition to pre-start and running checks, operators would usually be responsible for:

- cleaning air filter dust bowls
- draining water and sediment/fuel/water separators
- replenishing coolants, lubricants and fluids
- greasing all greasing pins and pivot points
- carrying out minor adjustments.

You should only carry out the servicing on your machine if you have been trained and have been authorised to do so.

**Do not** attempt any major maintenance, repairs or adjustments to your machine which you are not authorised to carry out. This must be done by a suitably qualified and competent person!

## Do

- Ensure the machine is on firm and level ground before attempting to carry out any operator maintenance
- Where practically possible, place signs on the machine to prevent accidental start up before carrying out your operator maintenance duties
- Carry out regular visual checks for any defects, damage, leaks
- Ensure the locking bar is in position to prevent the front and rear chassis moving and creating a crushing zone (articulated machines only)
- Keep footplates and steps clean and free from mud, dirt, oil, ice and snow etc.
- Complete daily/weekly maintenance/defect sheets if your company issues them to you. All faults/defects should be reported immediately and corrected before the machine is used

## Don't

- Attempt to carry out any operator maintenance on a machine with a hot engine
- Attempt to inspect or clean the machine with the engine running
- Attempt to refuel or top up lubricants and fluids while the engine is running
- Remove the radiator cap when the engine is hot
- Add coolant to a hot engine
- Overfill the engine oil or fuel tank

## 5. Articulated Dumper safety checklist

**S**afety starts with you. Remember! You, as an Articulated Dumper operator are the key to safety. You are legally responsible for your own safety and that of others working nearby.

**A**ccidents are unplanned, unwanted events, which can injure or kill people. Simple measures taken by your employer and yourself can reduce the risk of them happening.

**F**ines can be imposed on your employer and yourself for breaching Health and Safety Regulations (in some instances it can also lead to imprisonment).

**E**nsure you wear all protective clothing and equipment and personal safety equipment (PPE) issued to you or required by your working conditions.

**O**nly operate an Articulated Dumper that you have been trained to use and are familiar with.

**P**assengers should not be carried on your Articulated Dumper (unless an authorised seat has been provided).

**E**nlist the services of a signaller/banksperson to assist you if your vision is restricted or there are obstructions in the vicinity. Ensure there is edge protection when tipping materials into excavations.

**R**eport all accidents (no matter how slight), faulty/damaged plant and equipment and any dangerous incidents. Stay alert, know where to get help, know the emergency procedures on site.

**A**lways drive your Articulated Dumper with due consideration for others and adjust your speed to suit weather and site conditions. If you need to drive on the road obey all driving laws, ensure your Articulated Dumper is prepared for road travel and complies with all road traffic regulations.

**T**ravel your Articulated Dumper safely, so as not to affect its stability. Take extra care when travelling uphill and downhill, on slopes or on hillsides. Select the appropriate gear for driving uphill and downhill and use the retarder as necessary to assist braking.

**I**nspect your Articulated Dumper and working area at regular intervals before use to spot any defects, hazards or distractions. Take nothing for granted!

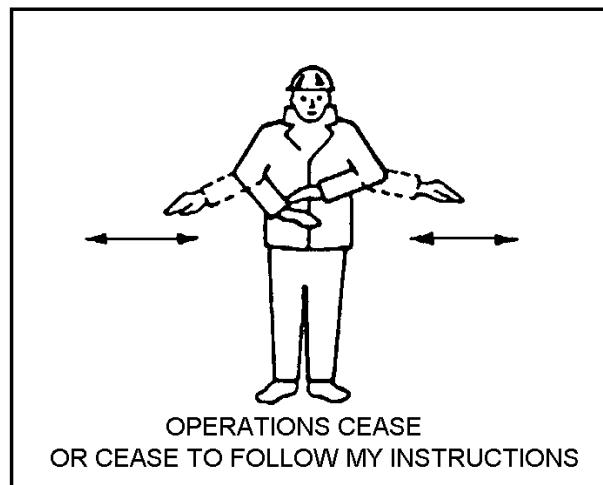
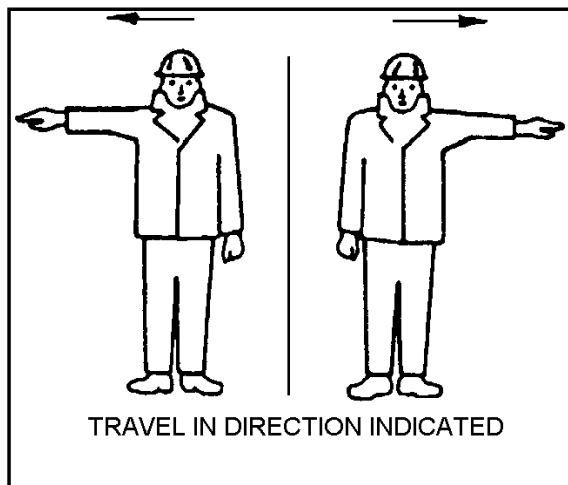
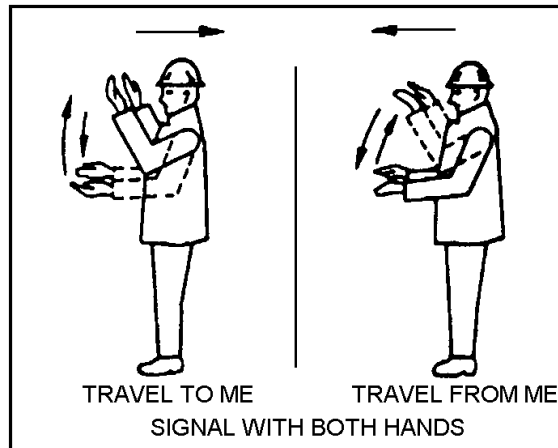
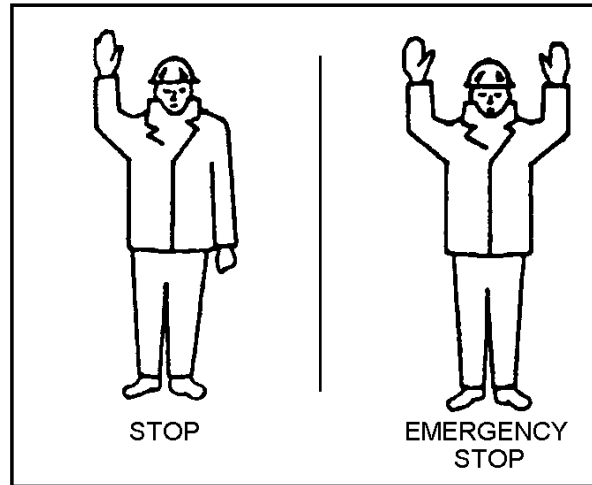
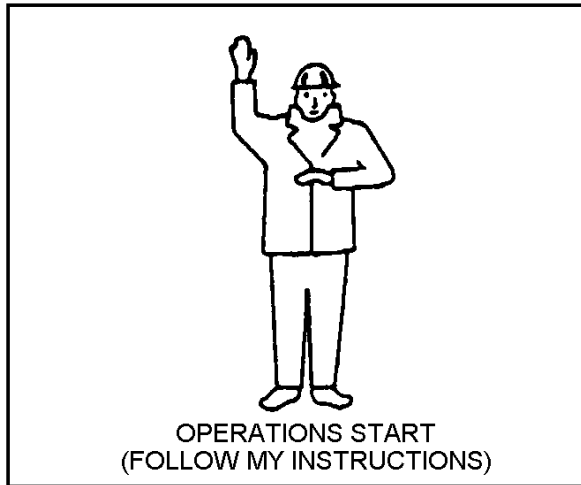
**O**bserve all warning/safety signs and traffic regulations on site.

**N**ever carry out a manoeuvre with your Articulated Dumper if it is likely to endanger yourself and others (even if your work colleagues request it to try and cut corners on a job). If in any doubt seek guidance from your supervisor.

**S**hut down, secure and isolate your Articulated Dumper in accordance with the manufacturer's recommendations and your company's procedures.

## APPENDIX A

### Recommended signals



#### Note:

*The signaller should stand in a secure position where he/she can see the load and can be seen clearly by the driver and should face the driver if possible. Each signal should be distinct and clear.*