Defence
Safety Authority

Defence Land Safety and Environmental Regulations

Preface

Status

These Defence regulations are issued under the authority of the Charter for the Defence Safety Authority (DSA) (Secretary of State for Defence, May 2023). Printed or downloaded copies of Defence Safety Regulatory Publications are uncontrolled.

Scope

These Defence regulations apply to all those employed by Defence (military or civilian) as well as those working on behalf of Defence (for example, contractors). It applies to all Defence activities carried out in any location (UK or overseas).

Requests for Change, Advice and Feedback.

Proposals for changes, comments or queries on these Defence Land Safety regulations should be made by contacting dsa-dlsr-regcertgroup@mod.gov.uk.

Review Process

These Defence Land Safety regulations for Health, Safety and Environmental Protection (HS&EP) are reviewed every year and re-issued where required.

Copyright

Accessibility

These Defence regulations have been updated to make sure they meet plain English and accessibility requirements. If you have difficulty using these Defence regulations or think we are not meeting accessibility requirements, contact dsa-dlsr-regcertgroup@mod.gov.uk.

Amendment Table

Version Number	Version Date	Changes to Previous Version
1.00	May 2024	

Foreword

The Secretary of State for Defence through their Safety and Environmental Protection Policy Statement requires Defence organisations and Trading Fund Agency Chief Executives to conduct Defence activities with high standards of Health, Safety and Environmental Protection. They are expected to achieve this by implementing comprehensive safety and environmental management arrangements.

DSA is responsible for developing and managing Defence safety regulations within the SMS owned by DDS, and conducting of independent assurance on behalf of Secretary of State, that Defence safety regulations and top level Health, Safety and Environmental Protection (HS&EP) Policy is being implemented effectively.

DG DSA has directly delegated to me, the Defence Land Safety Regulator (DLSR), the authority to regulate and assure MOD activity in the Land Domain. The regulations set out in this document are mandatory and full compliance is required.

It is the responsibility of Accountable Persons within the scope of these regulations to make sure that personnel, including contractors, involved in the conduct of Defence activities are fully aware of their responsibilities.

Ben Wrench

B Wrench

Brigadier

Defence Land Safety Regulator

Defence Safety Authority

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103	Assurance	01 May 24	Formerly: ATSR Reg 9, LSSR Reg 14, MTSR Reg 21
104	Environmental Protection	01 May 24	Formerly: FGSR Reg 2, LSSR Reg 2
105	Competency and Currency	01 May 24	Formerly: ATSR Reg 3, FGSR Reg 7, LSSR Reg 3
106	Duly Authorised Organisations (DAO)	01 May 24	New

200 Series: Adventurous Training Safety and Environmental Regulations

Number	Title	Effective Date	Status
201	Adventurous Training Safety Advice	01 May 24	Formerly: ATSR Reg 4
202	Adventurous Training Equipment	01 May 24	Formerly: ATSR Reg 6
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204	Adventurous Training Centre Licensing	01 May 24	Formerly: ATSR Reg 9
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Number	Title	Effective Date	Status
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512	Control and Management of MOD Vehicles	01 May 24	Formerly: MTSR Reg 12
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600 Series: Land System Certification Regulations

Number	Title	Effective Date	Status
601	Land Systems Certification	01 May 24	New
602	Certifying a Land System	01 May 24	New
603	Post Certification Activity	01 May 24	New

Introduction

1. These Defence regulations combine the DLSR HS&EP regulatory framework for the UK MOD Adventurous Training, Fuel and Gas, Land Systems and Movement and Transport related activities. Collectively they are referred to as ‘The DLSR regulations’.

2. These regulations should be read and understood by all people and organisations conducting Defence Land Domain activity for or on behalf of the MOD - compliance is mandatory.

3. Each organisation conducting Defence Land Domain activities should be able to identify the person accountable for compliance with each DLSR regulation.

4. DLSR is an independent regulator within the DSA. The DLSR produces regulations and conducts independent assurance to Secretary of State (SofS) that the top level HS&EP policy statement in Defence is being implemented effectively as outlined in the DSA Charter. DLSR will provide assurance, including enforcement where appropriate, of Defence Land Safety and Environmental Regulations, DSA Standards and top level HS&EP Policy. The DLSR regulates all Defence Land Domain activity and can set regulations where:

   a. a **derogation** (a relaxation of a statutory requirement to allow the law to be applied differently for justifiable practical or operational reasons), an **exemption** (a formal written authorisation for all or a part of a specific legislation do not apply) or a **disapplication** (where all or part of specific legislation does not apply to Defence) applies;

   b. the DSA regulator has a delegation from the Statutory Regulator or is directed by authorised local authorities;

   c. the Director Defence Safety or a Defence organisation has requested, and the DSA has accepted, that an area of Defence activity is not sufficiently regulated;

   d. there is a gap in UK legislation that needs to be filled when considering Defence activity or following lessons identified;

   e. for activities that are considered as high-risk and Defence organisations (via the Defence Safety Environmental Committee (DSEC)) have decided that the legislation does not provide enough regulation for specific military activities.

5. DLSR provides the Third Line of Defence (3LOD) Assurance in the Land Domain in line with DSA standards by:

   a. setting Defence regulations, acceptable means of compliance and guidance to enable Defence Land activities;

   b. conducting independent 3LOD Assurance through oversight, surveillance, audit, inspection tracking, assessing, and influencing forthcoming technology and legislative changes;

   c. licensing high-hazard activities; and

   d. taking enforcement action to ensure compliance and support the delivery of operational capability.

6. Only the DLSR can set DLSR regulations and enforce compliance.

DLSR Governance

7. **Secretary of State**. The SofS has responsibility for, and is answerable to, Parliament on matters of HS&EP within the MOD.

8. **Director General Defence Safety Authority**. DSA is headed by the DG DSA; a 3-star military officer responsible for championing Defence safety. The DG DSA owns, develops, and maintains Defence HS&EP regulations on behalf of the SofS, through the Permanent Secretary. Governance arrangements are contained within Health and Safety and Environmental Protection Function Operating Model. The DG DSA leads on the approvals process for proposed exemptions to UK legislation relating to areas the DSA regulates, or where Defence regulations relating to HS&EP are waived and maintains a register of all HS&EP derogations, exemptions, and disapplication's. DG DSA sets mandatory and proportionate rules and standards for all organisations conducting Defence activity. DG DSA also provides advice to the SofS on HS&EP policy in Defence and assurance that the policy is being promoted and implemented.

9. **Defence Land Safety Regulator**. DLSR is accountable to DG DSA for independent regulation and evidence-based assurance of safety and environmental management in the Defence Land Domain.

10. **DLSR Functional Sub-Regulators**. The functional sub-regulators work to the Head (Hd) DLSR to provide independent regulation of HS&EP across the Land Domain for specific Defence activities. The functional sub-regulators also provide assurance that effective HS&EP management arrangements are in place. The DLSR functional sub-regulators liaise with other DSA regulators, in addition to health, safety and environmental professionals across Defence to encourage consistency and best practice. When appropriate, other government departments and statutory regulators (for example, Health and Safety Executive (HSE)) are consulted.

11. DLSR functional sub-regulators are:

    a. the Adventurous Training Safety Regulator (ATSR);

    b. the Fuel and Gas Safety Regulator (FGSR);

    c. the Land Systems Safety Regulator (LSSR);

    d. the Movement and Transport Safety Regulator (MTSR);

    e. the Regulation and Certification Team (Reg&Cert).

12. **Defence Safety Environmental Committee**. The DSEC, chaired by the Second Permanent Secretary, is the main forum within Defence responsible for the governance of HS&EP, Climate Change and Sustainability (CC&S). DSEC ensures HS&EP and CC&S is managed effectively through a strong corporate governance framework.

13. **DSA Regulator Group**. The DSA has several management groups which have both formal and informal meetings to determine the development of DSA regulations, assurance, enforcement and investigation on behalf of DG DSA.

14. **Defence Land Safety Regulator Stakeholder Committee (DLSR SC)**. The DLSR SC is chaired by the Hd DLSR and provides a forum where stakeholders can consider high-level strategic Land safety and environmental matters. DLSR stakeholders share their views on the DLSR regulations, comment on proposed changes to DLSR and are informed about the outcome of regulatory activities. The members of the DLSR SC are those stakeholders responsible for Land HS&EP across MOD, together with the central MOD civilian and service policy authorities.

15. The DLSR SC meets twice a year, one meeting is focused on reviewing the draft DLSR Annual Assurance Report (AAR) and the second reviews the progress towards resolving the issues identified in the AAR. The DLSR SC is supported by a Land Exemptions Committee (LEC) and Stakeholder Working Groups (SWGs) for each of the DLSR functional sub-regulators.

16. **Land Exemptions Committee (LEC).** The LEC assesses requests to invoke legal exemptions for regulations made under Section 41 Road Traffic Act 1988, in respect of construction, weight, equipment and use of vehicles. The exemption process is applicable to Operational Military Vehicles (OMVs) as described in Article 53 of The Road Vehicles (Authorisation of Special Type) (General) Order 2003 and is conducted by the LEC on behalf of the SofS for Defence. The committee considers the robustness of the arguments made and the suitability for exemption(s) from relevant legislation for OMVs where compliance will directly compromise the vehicle's operational capability. The decision to grant the exemption is made by the Committee and is signed off by the Chair. Applications for consideration by the LEC are to be made through the DLSR, to dsa-dlsr-regcert-leg@mod.gov.uk, this process is set out in the Defence Land Systems Regulator (DLSR) SOP 3 - Legislative DEDs Process (Internal MOD access only). The general Exemption Certificate process for all other cases is set out in JSP 815 Vol 2 Annex B (Internal MOD access only).

17. **DLSR Regulatory Stakeholder Working Groups**. The individual DLSR regulatory SWGs are chaired by their respective functional sub-regulator Assistant Team Leader, except for ATSR whose matters are discussed at the Joint Service Adventurous Training Steering Group (JSATSG). The SWGs are groups that focus on work directed by the DLSR SC, to discuss HS&EP issues with the Defence organisations and to escalate issues from the Defence organisations to the DLSR SC, in or out of committee.

18. **Statutory regulators**. The DSA engages regularly with statutory regulators that align to their respective area of regulatory activity. This helps to drive consistency where required and coherence within regulated areas of activity.

Regulation Overview

19. Defence regulations are put in place to manage risk, protect people, reduce harm to the environment and preserve our operational capability. They are complementary to the legislative and policy framework. As with legislative requirements, compliance with DLSR regulations is mandatory.

20. DLSR regulations are structured in 'series' as follows:

a. 100 'generic' series which apply across all Defence Land Domain related matters;
b. 200 series which applies specifically to Adventurous Training related matters;
c. 300 series which applies specifically to Fuel and Gas related matters;
d. 400 series which applies specifically to Land Systems related matters;
e. 500 series which applies specifically to Movement and Transport related matters;
f. 600 series which applies specifically to Land System Certification.

21. Where there is uncertainty regarding the application of the regulations or a risk of not achieving compliance, the Accountable Person should seek clarification from the functional sub-regulator. This can be done by contacting dsa-dlsr-regcertgroup@mod.gov.uk.

22. The DLSR, where appropriate, publish regulations in goal-based form that is, setting out what must be achieved, but not how it must be done. Sometimes it is necessary to be prescriptive, that is spelling out in detail what should be done. Some standards are absolute. Sometimes the relevant legislation requires prescription, so the Defence regulation needs to be prescriptive to produce outcomes which are, so far as is reasonably practicable, at least as good as those required by UK legislation.

23. Each regulation is allocated a three-digit number, the first digit coming from the series number. For example, DLSR regulation 101 – Authority and Accountability relates to the first regulation which relates to all Defence Land Domain activities. DLSR regulation 409 – Vehicle Maintenance is the ninth regulation which relates specifically to Land Systems.

24. **Must, Shall and Should Definitions**. There are several definitions that apply to the DLSR regulations:

a. **Must**. Describes an activity that is mandatory and descends directly from UK legislation.

b. **Shall**. Describes an activity that is a mandatory regulatory requirement.

c. **Should**. Describes an activity that is good practice and acceptable evidence to demonstrate compliance with a regulation. However, alternative approaches will be thoroughly considered.

25. **Provenance**. The provenance is the origin of the DLSR regulation and should help clarify the reason to regulate the activity. When the provenance highlights legislation, it is not exhaustive.

26. **DLSR Acceptable Means of Compliance (AMC)**. DLSR Acceptable Means of Compliance illustrate a means, but not the only means, by which DLSR regulations can be met. AMC are written in the permissive sense to allow organisations the opportunity to consider alternative approaches. As a consequence, AMC contain the permissive verb “should”.

27. There may be occasions when the Regulated Community is unable to comply with DLSR regulations. In such circumstances, a regulatory waiver may be applied for to seek the granting of a temporary waiver from current regulations. This should be submitted in-line with DLSR Standard Operating Procedure Number 2 – DLSR Regulatory Exemption Process (Internal MOD access only).

28. **Regulatory Instruction (RI) and Regulatory Notices (RN).** DLSR employ one of two types of notification, to effect timely communication of regulatory changes to DLSR regulatory documents. The type of notification will be dependent upon the nature of the information to be conveyed:

a. Regulatory Instruction. A RI will be used to provide new mandatory direction.

b. Regulatory Notice. A RN will notify changes in structures, procedures, relations, or provide regulatory advice.

29. **DLSR Regulatory Advice**. DLSR also provides regulatory advice, normally through issuing regulatory notices or regulatory instructions in line with DLSR Standard Operating Procedure Number 5 – Regulatory Advice and Guidance (Internal MOD access only). All DLSR regulatory advice is strongly recommended practice. Care is taken to make sure that regulatory advice details what is required and to what standard but is not prescriptive as to how it is to be achieved.

30. **DLSR Guidance**. The guidance provides additional practical advice on compliance with Defence regulation. If the guidance is followed, then this will be considered sufficient to demonstrate compliance. Alternative approaches may be used where this produces an outcome that can be demonstrated to be as good as required by the regulation. As a consequence, guidance contains the permissive verb “should”.

31. DLSR can approach any person or organisation involved in Defence Land Domain activities to establish that DLSR regulations are being met. People approached must be able to provide evidence that they meet the requirements detailed in these regulations, any other Defence regulations, HS&EP policy and statutory legislation.

Enforcement

32. Accountable Persons are required to make sure that DLSR regulations are complied with.

33. The purpose of enforcement of DLSR regulations is to make sure that those responsible:

a. take appropriate action to deal immediately with serious risks;

b. achieve and maintain compliance with DLSR regulations and are held to account where failures occur;

c. enable Defence Land activities as safe as practicably possible.

34. DLSR will conduct enforcement in line with the current DSA Standards using:

a. Corrective Action Requirement (CAR) Level 1 – The Accountable Person is required to address the immediate risk within 5 working days. An interim solution mitigating the risk to as low as reasonably practicable (ALARP) is to be implemented and detailed to the regulator within a maximum 30 working days. The Accountable Person is then to provide a corrective action plan detailing an enduring solution within five months of receipt of the CAR.

b. CAR Level 2 – The Accountable Person is required to address the immediate risk within 5 working days. An interim solution mitigating the risk to ALARP is to be implemented and detailed to the regulator within a maximum 30 working days. The Accountable Person is to provide a corrective action plan detailing an enduring solution within nine months of receipt of the CAR.

c. Improvement Notice (IN) – IN takes immediate effect and require improvement to take place within a specified area(s) and a defined period of time to satisfy statutory requirements of the provisions of Defence regulations.

d. Prohibit Notice (PN) – PN will take immediate effect with the requirement for the activity to cease. The Accountable Person is to provide a corrective action plan within 30 working days of receipt of the PN.

e. Immediate Stop Notice - The ISN takes immediate effect. The ISN is served using the documented process outlined in DLSR SOP 8D (Internal MOD access only) and may remain effective for a period of up to 7 days, during which time the issue can be resolved or elevated to the regulator for further enforcement action to be taken.

Glossary of Acronyms and Terms

Table 1: Acronyms

Acronym	Definition
1LOD	First Line of Defence
2LOD	Second Line of Defence
3LOD	Third Line of Defence
AAR	Annual Assurance Report
ACSO	Army Command Standing Orders
ADR	The Agreement Concerning the International Carriage of Dangerous Goods by Road
AESP	Army Equipment Support Publication
ALARP	As Low as Reasonably Practicable
AMC	Acceptable Means of Compliance
AP	Authorised Person
AP (Electrical)	Authorised Persons Electrical
AP(Petroleum)	Authorised Persons Petroleum
APEA	The Association for Petroleum and Explosives Administration
AST	Ancillary Storage Tank
AT	Adventurous Training
ATSR	Adventurous Training Safety Regulator
AV (W)	Armoured Vehicle (Wheeled)
AV(T)	Armoured Vehicle (Tracked)
BCGA	The British Compressed Gas Association
BFCV	Bulk Fuel Carry Vehicles
BFIs	Bulk Fuel Installations
BOC	British Oxygen Company
BPEO	Best Practicable Environmental Option
CADMID/T	Concept, Assessment, Demonstration, Manufacture, In-Service, Disposal/Termination
CAR	Corrective Action Requirement
CC&S	Climate Change and Sustainability
CCO	Certificate of Continued Operation
CDG	Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations
CDM 2015	The Construction (Design and Management) Regulations 2015
CM	Configuration Management
CO	Commanding Officer
COMAH	Control of Major Accidents Hazards
COSHH	Control of Substances Hazardous to Health
COTS	Commercial Off the Shelf
CSG	Capability Safety Group
CTU	Cargo Transport Unit
DAO	Duly Authorised Organisation(s)
DDE	Defence Driving Examiners
DDS	Director Defence Safety
DED	A Derogation, Exemption or Disapplication from legislation applicable to Defence.
DELTA	Defence Licensing and Testing Authority.
Def Stan	Defence Standards
DEPR	Defence Environmental Protection Regulator
DESA	Defence Equipment Sales Authority
DFSR	Defence Fire Safety Regulator
DfT	Department for Transport
DG	Dangerous Goods

Acronym	Definition
DG DSA	Director General Defence Safety Authority
DGR	Dangerous Goods Regulations
DGSA	Dangerous Goods Safety Advisor
DIO	Defence Infrastructure Organisation
DLOD	Defence Lines of Development
DLSR	Defence Land Safety Regulator
DLSR SC	Defence Land Safety Regulator Stakeholder Committee
DMG 14	Design Maintenance Guide 14
DPV	Dual Purpose Vehicle
DSA	Defence Safety Authority
DSEAR	The Dangerous Substances and Explosive Atmospheres Regulations 2002
DSEC	Defence Safety Environmental Committee
DVA NI	Driver and Vehicle Agency Northern Ireland
DVLA	Driver and Vehicle Licensing Authority
EAP	Emergency Action Plan
ECM	Entities in Charge of Maintenance
ECS	Exemption Case Submission
EI	Energy Institute
EMP	Environmental management plan
EMS	Environmental management system
EMSAS	Environmental Management Systems as Army Sites
ESN	Electronic Safety Notice
ESRS	Equipment Standards Regulatory Schedule
EWG	Editorial Working Group
F&GS	Fuel and Gas Storage
F&L	Fuel and Lubricant
FGSAA	Fuel and Gas Safety Assurance Assessment
FGSR	Fuel and Gas Safety Regulator
GEEP	Gas Emergency Escape Plan
GSMP	Gas Safety Management Plan
Hd	Head
Hd DLSR	Head Defence Land Safety Regulator
HFI	Human Factors Integration
HoE	Head of Establishment
HS&EP	Health, Safety and Environmental Protection
HSE	Health and Safety Executive
HSG	Health and Safety Guidance
HSIS	Hazardous Stores Information System
IATA	International Air Transport Association
ICAO TI	International Civil Aviation Organisation Technical Instruction.
IMDG	International Maritime Dangerous Goods
IN	Improvement Notice
ISN	Immediate Stop Notice
JAMES	Joint Asset Management and Engineering Solutions
JOFS	Joint Operational Fuel Systems
JSAT	Joint Service Adventurous Training
JSATSG	Joint Service Adventurous Training Steering Group
JSP	Joint Service Publication
KHM	King’s Harbour Master
KiD	Knowledge in Defence
LCA	Legislation Compliance Assessment

Acronym	Definition
LCAT	Land Certification Authority Team
LEC	Land Exemptions Committee
LEES	Land Equipment Engineering Standards
LEUMS	Land Equipment User Maintenance Standards
LEV	Local Exhaust Ventilation
LGV	Large Goods Vehicle
LM	Line Manager
LOD	Line of Defence
LOLER	Lifting Operations Lifting Equipment Regulations 1998
Lox	Liquid Oxygen
LPG	Liquid Petroleum Gas
LSSR	Land Safety Systems Regulator
M&T	Movement and Transport
M&T S&ER	Movement and Transport Safety and Environmental regulations
MA	Marshalling Area
MACR	Major Accident Control Regulations
MAPP	Major Accident Prevention Plan
MCA	Maritime and Coastguard Agency
MEI	Mandatory Equipment Inspection
MOU	Memorandum of understanding
MGI	Multiple Gas Indicator
MIS	Management Information System
MMO	Maintenance Management Organisations
MOD	Ministry of Defence
MTFIs	Motor Transport Fuel Installations
MTSR	Movement and Transport Safety Regulator
NC	Non-Compliant
NDT	Non-destructive testing
NGB	National Governing Body
NOS	Normal Operating Standards
NVD	Night Vision Devices
OC	Operating Centre
OEM	Original Equipment Manufacturer
OFD	Oil Fuel Depots
OGD	Other Government Departments
OME	Ordinance, munitions and explosives
OMV	Operational Military Vehicle
ORR	The Office of Rail and Road
OWI	Oil Water Interceptor
PCV	Passenger-carrying vehicle
PE	Programmable Elements
PED	Personal Electronic Device
PIC	Person in Charge
PG	Practitioner Guide
PN	Prohibit Notice
PUWER	Provision and Use of Work Equipment Regulations 1998
RAF	Royal Air Force
REACH	Registration, Evaluation, Authorisation, and restriction of Chemicals
Reg&Cert	The Regulation and Certification Team
REME	Royal Electrical and Mechanical Engineers
RHD	Right Hand Drive

Acronym	Definition
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
RIDDOR	Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013
ROGS	The Railways and Other Guided Transport Systems Regulations
ROPA	Routes of Public Access
SDS	Safety Data Sheet
SEC	Safety and Environmental Case
SECR	Safety and Environmental Case Report
SEMP	Safety and Environmental Management Plan
SEMS	Safety and Environmental Management System
SEP	Safety and Environmental Panel
SFAIRP	So far as is reasonably practicable
SIM	Standards and Inspection Manual
SME	Subject matter expert
SMP	Sports Safety Management Plan
SMS	Safety Management System
SofS	Secretary of State
SOP	Standard Operating Procedure
SQA	Scottish Qualifications Authority
SQEP	Suitably Qualified and Experienced Personnel
SRO	Senior Responsible Owner
sS	Single Service
STANAG	NATO Standardisation Agreement
SWG	Stakeholder Working Group
TBE	To Be Established
TCV	Troop Carrying Vehicle
TDS	Tie Down Scheme
TOR	Terms of Reference
UCR	Urgent Capability Requirements
UKLPG COP1	UK Liquid Petroleum Gas Code of Practice 1
USRP	Unit Spill Response Plan
WLL	Working Load Limit

Table 2: Terms

Term	Definition
Accident	An event that results in injury, ill health or death to a person(s). (JSP 375: Master terms and definitions glossary V1.4 11 Aug 23)
Accountable Person	The person whose terms of reference state that they are accountable for making sure there are suitable and sufficient systems in place to control health, safety and environmental risks in their organisation, unit, estate (site) or platform. This term is used in place of CO, HoE, OC, Station Commander, SRO and so on, or as decreed by the Defence organisations.
Active systems	These management systems monitor performance to reduce the probability of undesirable events occurring.
ALARP	When risk has been reduced to a level where applying further control measures would be grossly disproportionate to the benefit that would be gained. (JSP 375: Master terms and definitions glossary V1.4 11 Aug 23)
Assurance	A general term for the confidence that can be derived from objective examination of information over the successful conduct of activities, the efficient and effective design and operation of internal control, compliance with internal and external requirements, and the production of insightful and credible information to support decision-making. Confidence diminishes when there are uncertainties around the integrity of information or of underlying processes. (JSP 375: Master terms and definitions glossary V1.4 11 Aug 23)
Audit	Systematic and documented process for obtaining and evaluating objective evidence and evaluating it objectively to determine the extent of compliance to set criteria. (JSP 375: Master terms and definitions glossary V1.4 11 Aug 23)
Autonomous vehicle or platform	A vehicle or platform capable of moving itself from a starting point to a predetermined destination in “autopilot” mode by sensing its environment and moving safely with little or no human input. May be controlled externally, or by use of technology and sensors.
Banksman	An individual responsible for directing vehicle movement during manoeuvring phases.
Banksman (Slinger or signaller)	An individual assisting a lift (crane) operator with the positioning or removal of lifting equipment and / or providing direction to an operator to assist with loading / unloading.
Biosecurity	The term biosecurity encompasses all applicable biosecurity and Biological & Ecological Control (BEC) measures required to prevent the spread of diseases affecting humans, animals, flora, the spread of pests, and the spread of flora and fauna to a country or region where it does not currently or naturally occur.
Best Practicable Environmental Option (BPEO)	The BPEO procedure establishes, for a given set of objectives, the option that provides the most benefits for the least damage to the environment and at acceptable cost through life. Individual environmental protection legislation refers to terms such as ‘As Low As Reasonably Achievable’, ‘Best Available Techniques’, ‘Best Practicable Environmental Option’ which have subtle variations of meaning. For brevity ‘selection of BPEO’ is used to describe the acceptable reduction of environmental risk.
Business case	A business case captures the reasoning for initiating a project or task. It is often presented in a well-structured written document but may also come in the form of a short verbal agreement or presentation. The logic of the business case is that, whenever resources such as money or effort are consumed, they should be in support of a specific business need.
Commander	A person responsible for planning activities, supervising activities, and making sure that personnel under their area of responsibility are safe. This term refers to a role rather than the rank of Commander, and it can be a permanent or temporary role (for example, lasting for the duration of a training exercise). In parts of Defence this person could be referred to as a ‘responsible person’.
Competence or Competent person	A person who has sufficient training, qualifications, and experience to carry out their role to an appropriate standard.
Consignment	Goods or products issued and received as one delivery and covered by one set of documents. The consignment may consist of one or more batches or parts of batches. A consignment may cover similar articles from different manufacturers or sources.
Consignor	Sometimes called a ‘Shipper’. A person or organisation(s) acting either alone or on behalf of somebody else who prepares and offers goods for shipment by all modes of transport. The consignor is responsible for all aspects of the preparation, packing, documentation, and despatch of the consignment through to its destination.

Term	Definition
Convoy	A group of vehicles organised for the purpose of control and orderly movement with or without escort protection.
Convoy commander	The individual nominated to command and control a convoy.
Cross-Country	An area of terrain, other than metalled roads and tracks, comprising gullies, steep slopes, water obstacles and rocks, rough and uneven ground, etc.
Current or Currency	An individual with relevant or recent experience in conducting a function or task to an acceptable standard.
Defence organisation	This refers to Military Commands, Top Level Budgets (TLBs) the Defence Nuclear Organisation (DNO) and Enabling Organisations (Eos) collectively. (JSP 375 Master Glossary V1.4)
Defence Standard (Def Stan)	Defence Standard means a technical specification the observance of which is not compulsory and which is approved by a standardisation body specialising in the production of technical specifications for repeated or continuous application in the field of Defence. (MOD Glossary)
Defence Licensing and Testing Authority (DELTA)	The Secretary of State for Defence is permitted, by legislation, to undertake driver testing of MOD employees. This work is undertaken by the Defence Licensing and Testing Authority (DELTA), which has offices located at formation headquarters and training establishments under the delegated control of certain commanders and commanding officers.
Derogation	A relaxation of a statutory requirement to allow the law to be applied differently for justifiable practical or operational reasons. (DSA 01.1 Regulations V 1.0 19/06/2023)
Dangerous Goods (DG)	Articles or substances which can pose a risk to health, safety, property, or the environment or which are classified in the modal regulations as being dangerous for carriage.
Dangerous Goods Safety Advisor (DGSA)	A suitably qualified, competent and current individual certified to provide advice to those responsible for the consignment, carriage, or the related packing, loading, filling, or unloading of DG.
Disapplication	Where all or part of specific legislation does not apply to Defence. (DSA 01.1 Regulations V 1.0 19/06/2023)
Dispensation	Formal written authorisation providing an exemption from all, or part of a specified legislation.
Dual Purpose Vehicle (DPV)	A vehicle of specific construction which can carry both cargo and passengers.
Dunnage	Timber or any suitable material used to stabilise, ventilate, secure, or spread the weight of the cargo inside a Cargo Transport Unit.
Entities in Charge of Maintenance (ECM)	People or organisations who are responsible for the maintenance of vehicles used on the mainline railway.
Environmental management plan (EMP)	A document that defines the strategy for addressing environmental protection and documents the environmental management system.
An Environmental Management System (EMS)	An Environmental Management System is a formal, structured approach to managing the aspects of a sites activities, products or services that have, or could have an impact upon the environment.
Environment	Surroundings which a system or organisation affects, including air, water, land, natural resources, flora, fauna, and their interrelation with humans (third parties).
EX	Ex rated equipment refers to equipment that has been classified as safe for use in hazardous areas, which are often referred to as “Ex areas.”
Exemption	A formal written authorisation for all or a part of a specific legislation do not apply.
Hazard	An item, event, activity, or situation with the potential to cause: • injury, ill-health, or death; • damage to or loss of equipment or property; or • damage to the environment (JSP 375: Master terms and definitions glossary V1.4 11 Aug 23)
Hazard log	The continually updated record of the hazards, accident sequences and accidents associated with a system. It includes information documenting risk management for each hazard and accident.

Term	Definition
Hazardous stores	Sometimes referred to as Hazardous Goods. A product which requires safety information regarding the safe handling, storage, and disposal. The safety information is usually in the form of a Safety Data Sheet (SDS).
Hazardous Stores Information System (HSIS)	A system which provides readily accessible hazardous stores and safety information across Defence for all products that are designated as, or contain, hazardous substances, mixtures, and articles.
Head of Establishment (HoE)	Appointed Accountable Person who nominally has control of access and egress for a specified MOD establishment/s and the authority over the 'safe place' as their Area of Responsibility. They support those holding responsibility for the activities within that MOD establishment/s, agreeing operating rules and boundaries (incl. station commanders, platform Commanding Officers). (JSP 375: Master terms and definitions glossary V1.4 11 Aug 23)
Incident	An event which causes loss or damage to property, plant or equipment. (See also accident and near miss). (JSP 375: Master terms and definitions glossary V1.4 11 Aug 23)
Land Domain	For the purposes of these regulations, the Defence Land Domain encompasses all Adventurous Training, Movement and Transport, Land Systems and Fuel and Gas activity, wherever it may occur.
Land System	A Land System can be defined as any system designed to be operated and maintained in the Land Domain, where the output and the activity does not primarily impact on air or sea worthiness.
Loading	The process of putting troops, equipment and supplies into ships, aircraft, trains, road transport or other means of conveyance.
Maximum Authorised Mass	The weight of a vehicle or trailer including the maximum load that can be carried safely when it's being used on the road. This is also known as gross vehicle weight (GVW) or permissible maximum weight.
Mechanical Handling Equipment (MHE)	Mechanical equipment used for the movement, storage, control and protection of materiel, goods, and products throughout the process of manufacturing, distribution, consumption, and disposal.
Memorandum of Understanding (MOU)	A business agreement between MTSR and another Government Department or Agency
Military vehicle / MOD vehicle / MOD provided vehicle	Any mechanically, electrically or hybrid propelled or animal-drawn vehicle, trailer, or towed equipment (a prime mover and its trailer(s) are considered as one vehicle), a cycle, hand cart or animal, which is owned, controlled, leased, hired, or used by the MOD. It covers a wide range of vehicles, from cars, vans, LGVs and PCVs, to fewer common vehicles such as tracked or armoured vehicles, plant vehicles, airfield, or dockside vehicles, lift trucks and container movers. This list is to illustrate only and is not considered exhaustive.
Movement	Movement is the activity involved in the change in location of equipment, personnel, or stocks as part of a military operation. Movement requires the supporting capabilities of mobility, transportation, infrastructure, movement control and support functions.
Multi-modal	1. Multi-modal movement defines not only the ability that more than one transport type can be used, but also refers to the use of at least two different modes of transport for a single movement. 2. In transport operations, a term applied to the movement of passengers and cargo by more than one method of transport.
Near miss	An event that had the potential to cause injury, ill health or death to a person(s) or damage to property, plant or equipment, but no actual harm or damage occurred. (JSP 375: Master terms and definitions glossary V1.4 11 Aug 23)
Normal Operating Standards (NOS)	MOD policy to comply with the spirit of the relevant EU legislation and this is referred to as Normal Operating Standards.
Operational Military Vehicle (OMV)	A military vehicle with unique characteristics which may exceed national standards in respect of its construction, weight, or lighting.
Open architecture vehicle	A vehicle, which may be of either a standard or non-standard design and which may not be fitted with doors, windows, or roof.
Operating environment	The total set of all external natural and induced conditions to which a system is exposed at any given moment.

Term	Definition
Oversize vehicle	A vehicle will be classified oversize if any part of it causes it to be wider than, longer than, heavier than or higher than the dimensions stipulated in National or International legislation.
Personal Electronic Device (PED)	A device, other than a two-way radio, which performs an interactive communication function by transmitting and receiving data.
Person in Charge (PIC)	The PIC is the person nominated as overseeing all operations and has the following responsibilities: • Overall responsibility for the safe conduct of all operations. • Coordinating with the load supervisor for safe systems of work to be put in place. • Liaison with the Site Safety Manager (SSM) for a full safety brief for the location they are operating in. • Completing Risk and Dynamic Risk Assessments for the location and the activities. • Providing safety briefs to all personnel to be employed in the movement activities. • Controlling access to the site. • Providing authority for movement operations to commence under the control of the relevant supervisors. (Note: Where an activity is being conducted and the SSM is not readily identifiable, the SSM responsibilities will fall to the PIC).
Platform	A series of integrated systems or components designed to carry out a function. For example, a vehicle, a communications network, etc.
Residual risk	The risk remaining after control measures have been applied. (JSP 375: Master terms and definitions glossary V1.4 11 Aug 23)
Risk	Combination of the likelihood of harm and the severity of that harm.
Risk management	Process that encompasses systematic hazard identification; risk assessment; hazard risk matrix; risk reduction and risk monitoring, evaluation, and review. (JSP 375: Master terms and definitions glossary V1.4 11 Aug 23)
Routes of Public Access (ROPA)	Any ‘road’ or any other ‘way’ on the Defence estate by which a member of the public may lawfully and legitimately use.
Safety	‘’The state of being protected from danger or harm.’’ (Cambridge Dictionary Defiition) (JSP 375: Master terms and definitions glossary V1.4 11 Aug 23)
Safety assessment	A systematic, comprehensive evaluation to identify all safety features of the system design, including hardware and software, and to identify all hazards and safety factors cross-Defence Line of Development (DLOD) that may be present in, or required for, the system being acquired, and then operated, including specific procedural controls and precautions that are to be followed. The Safety Assessment (SA) contains the structured argument that the system is safe for its intended use and that a specific DLOD has been considered in the context of the overarching Air System Safety Case. (JSP 375: Master terms and definitions glossary V1.4 11 Aug 23)
Safety management system (SMS)	The organisational structure, processes, procedures, and methodologies that enable the direction and control of the activities necessary to meet safety requirements and safety policy objectives.
Safety Data Sheet (SDS)	Safety data sheets provide information on chemical products that help users of those chemicals to make a risk assessment. They describe the hazards the chemical presents, and give information on handling, storage, and emergency measures in case of accident.
Safety Case	A structured argument, supported by a body of evidence that provides a compelling, comprehensible and valid case that a system is safe for a given application in a given environment. A safety case can also be combined with environmental protection considerations to form a Safety and Environmental Case.
Safety and Environmental Case (SEC)	A structured argument, supported by a body of evidence that provides a compelling, comprehensible and valid case that a system is safe for a given application in a given environment. A safety case can also be combined with environmental protection considerations to form a Safety and Environmental Case.
Safety and Environmental Case Report (SECR)	A report that summarises the arguments and evidence of the Safety and/or Environmental Case and documents progress against the safety and/or environmental programme.

Term	Definition
Safety and Environmental Management Plan (SEMP)	A document that defines the strategy for addressing safety and environmental protection and documents the safety and environmental management system for a specific project.
Safety and Environmental Management System (SEMS)	The organisational structure, processes, procedures, and methodologies that enable the direction and control of the activities necessary to meet safety and environmental requirements and policy objectives
Safety and Environmental Panel (SEP)	Safety and Environmental Panel. A group of stakeholders that exercises, oversees, reviews, and endorses safety management and safety engineering activities.
So far as is reasonably practicable (SFAIRP)	"ALARP" is short for "as low as reasonably practicable". "SFAIRP" is short for "so far as is reasonably practicable". The two terms mean essentially the same thing and at their core is the concept of "reasonably practicable"; this involves weighing a risk against the trouble, time and money needed to control it. Thus, ALARP describes the level to which Defence expects to see workplace risks controlled. (HSE.gov.uk/enforce/expert/alarpglance.htm)
Suitably Qualified and Experienced Personnel (SQEP)	An individual who has received training commensurate with their duties, is qualified, current and has experience in the required task. The individual should be appointed by their line manager and should be identified in Standard Operating Procedures (SOPs) Terms of Reference (TORs) and / or job descriptions. (See also competency and currency)
System	A combination, with defined boundaries, of elements that are used together in a defined operating environment to perform a given task or achieve a specific purpose. The elements may include personnel, procedures, materiel, tools, equipment, facilities, services and / or software as appropriate.
Troop Carrying Vehicle (TCV)	A vehicle primarily designed to carry cargo, but which may be fitted with approved seating for the carriage of personnel.
Tie Down Scheme (TDS)	A diagram and written instructions detailing the method of positioning and securing a particular item of cargo onto a specific load platform.
Theatre	A specific geographical area of conduct of armed conflict, bordered by areas where no combat is taking place.
Those holding safety and environmental responsibilities	This describes personnel (responsible persons) that have a duty of care for S&EP. This includes the three levels of Duty Holder – Senior Duty Holder, Operating Duty Holder, and Delivery Duty Holder.
Transport operator	The transport operator is responsible for the safe operation and preparation of their transport platform (road vehicle, train etc.), including the safety of the load during transit.
Transport workplace See also: Workplace safety	Any area where an interface of people and vehicle* related activity exists. *This includes MOD or contractor provided or privately owned vehicles, trains and rail areas, mobile cranes, mobile equipment, cycles, etc.
Unloading	The process of removing troops, equipment and supplies from ships, aircraft, trains, road transport or other means of conveyance.
Vehicle commander	Where required for tactical purposes the vehicle commander is responsible for crew conduct and tactical decision making for the vehicle being used.
Vehicle marshaller	An individual responsible for directing vehicle movement during manoeuvring phases. The marshaller is responsible for ensuring safe vehicle manoeuvring, making sure that they, the driver, and personnel in the immediate area are not placed in a position of danger.
Waiver	Waiver. Temporary, written authorisation for all or a part of specific Defence regulation to not apply to meet or sustain operational capability. Waivers are issued for a specific period and/or activity. (DSA 01.1 Regulations V 1.0 19/06/2023)
Working Load Limit (WLL)	The maximum safe force that a piece of lifting equipment, lifting device or an accessory can exert to lift, suspend, or lower, a given mass without fear of breaking.
Workplace safety	The principle of providing a safe working environment where pedestrians and other road users share space.

100 Series - Defence Land Safety and Environmental Regulations

1. This series describes the requirements for **all** Defence Land Domain activities relating to Adventurous Training, Fuel and Gas installations, Land Systems and Movement and Transport activities and operations.

2. All people engaged in Defence Land Domain activities should be aware of the requirements of DLSR 100 Series regulations.

3. All subsequent DLSR series should be read in conjunction with the Series 100 regulations. Compliance with the 100 Series regulations is mandatory.

Contents

101 – Authority and Accountability

Regulation	Each organisation engaged in (or contributing to) Defence Land Domain activities **shall** identify the Accountable Person(s) who sets down and implements the HS&EP management arrangements for activities in their specified area of responsibility.
Provenance	Health and Safety at Work Etc. Act 1974. The Management of Health and Safety at Work Regulations 1999. The Corporate Manslaughter and Corporate Homicide Act 2007. Environmental Protection Act 1990. Environment Act 2021. JSP 418 – Management of Environmental Protection in Defence.
Acceptable Means of Compliance	1. Each organisation **should** clearly detail within an organisation and arrangements document who holds accountability for HS&EP processes and the management of safety risk and environmental impact. 2. Details of Accountable Persons **should** be made available on request to DLSR. 3. Accountable Persons **should** hold documented evidence of their delegated authority, accountability, and responsibility. 4. There **should** be current and agreed Terms of Reference for all personnel who manage, perform, and verify work relating to or impacting safety and environmental management within the jurisdiction of these regulations. 5. Accountable Persons **should** make sure that all personnel with HS&EP responsibilities have formally delegated roles and responsibilities so that they are clear and understood by both the person and the people they interact with. 6. Accountable Persons **should** make sure that personnel with HS&EP responsibilities of any form are competent and current.
Further Guidance	JSP 815 - Defence Safety Management System Framework. JSP 816 - Defence Environmental Management System. JSP 375 – Management of Health and Safety in Defence. JSP 376 – Defence Acquisition Safety Policy. JSP 317 – Defence fuels policy, organisation and safety regulations. JSP 419 – Adventurous Training in the UK Armed Forces.(Internal MOD access only) JSP 814 – Policy and Regulations for Ministry of Defence Sponsored Cadet Forces.(Internal MOD access only)

	DLSR regulation 105 – Competence and Currency. DLSR 200 Series regulations for content concerned with Adventurous Training Safety and Environmental regulations. DLSR 300 Series regulations for content concerned with Fuel and Gas Safety and Environmental regulations. DLSR 400 Series regulations for content concerned with Land Systems Safety and Environmental regulations. DLSR 500 Series regulations for content concerned with Movement and Transport Safety and Environmental regulations. DLSR 600 Series regulations for content concerned with Land Systems Certification.

102 – Safety and Environmental Systems

Regulation	Accountable Persons **shall** ensure that a suitable and sufficient Safety and Environmental Management Systems (SEMS) is produced, maintained, and followed by all organisations within their area of responsibility.
Provenance	Health and Safety at Work, etc. Act 1974. Environmental Protection Act 1990. Environment Act 2021. JSP 418 – Management of Environmental Protection in Defence.
Acceptable Means of Compliance	1. The SEMS **should** detail the organisational structure, processes, procedures and methodologies in place to manage HS&EP. 2. The scope of the SEMS **should** be clearly identified so that those people involved know how it affects them. 3. The SEMS **should** include and communicate the objectives for managing safety and environmental protection. 4. The SEMS **should** be developed and maintained in accordance with a recognised standard that is appropriate for the area of responsibility.
Further Guidance	JSP 815 - Defence Safety Management System Framework. JSP 816 - Defence Environmental Management System. DLSR 200 Series regulations for content concerned with Adventurous Training Safety and Environmental regulations. DLSR 300 Series regulations for content concerned with Fuel and Gas Safety and Environmental regulations. DLSR 400 Series regulations for content concerned with Land Systems Safety and Environmental regulations. DLSR 500 Series regulations for content concerned with Movement and Transport Safety and Environmental regulations. DLSR 600 Series regulations for content concerned with Land Systems Certification. 1. SEMS are required to address risk in a manner that is appropriate and proportionate to the organisation and to the activities being carried out. The SEMS **should** cover the 12 safety and environmental elements as detailed in JSP 815 and JSP 816. 2. The majority of safety and environmental issues can be directly or indirectly related to one or more of the elements listed above. An organisation's SEMS **should** be a comprehensive site management system.

3. The requirement to define the process of hazard identification and risk assessment are important elements within a SEMS. If the hazards are deemed to be significant, they **shall** be formally risk assessed.

4. Once SEMS processes are established it is necessary to ensure that they are effective and that they remain so. There **must** be systems in place to identify hazards and control the associated risks. Personnel **must** be competent for the tasks that they are conducting and they **must** be appropriately supervised. There **shall** be a system to identify training requirements, ensure that suitable training is delivered, and a method in place to record competence. Appropriate maintenance and inspections **shall** be conducted at the relevant periodicity. Emergency procedures **shall** be practiced on a regular basis, and the lessons learned are to be documented and incorporated to improve performance. Likewise, documents **shall** be reviewed annually to ensure that they remain current and that they accurately fulfil the requirement.

Further Guidance Relevant to Adventurous Training

5. A SEMS is the organisational structure, processes, procedures, and methodologies that enable the direction and control of the activities necessary to meet statutory requirements, MOD policy, Defence regulations, and other requirements. The SEMS **should** cover the 12 safety and environmental elements as detailed in JSP 815 and JSP 816.

Further Guidance Relevant to Fuel and Gas

6. Bulk fuel and gas storage represents significant risks in terms of HS&EP. In order for a site to be certified as fit for continued operation, it **must** be able to demonstrate that it has systems in place to identify and adequately control these risks.

7. The FGSR Fuel and Gas Safety Assurance Assessment (FGSAA) seeks to verify that the unit has arrangements in place, and that fuel and gas hazards are correctly identified and controlled within the scope of that SEMS.

8. Fuel and gas managers **must** know their responsibilities with regards to site Health and Safety and **shall** have a working knowledge of the SEMS.

9. The FGSAA typically examines six types of risk assessment (risk assessments are covered in greater detail in FGSR regulations 301 and 302):

a. site hazard survey / risk assessment;

b. environmental risk assessment (Also known as environmental aspects and impacts);

c. activity risk assessment;

d. Control of Substances Hazardous to Health risk assessment;

e. the Dangerous Substances Explosive Atmosphere Regulations (DSEAR) risk assessment;

f. lightning risk assessment.

Further Guidance Relevant to LSSR

Safety and Environmental Management Plan (SEMP)

10. A SEMP (it is acceptable for this to be a single, combined, document or two separate documents) **should** be produced to document how the SEMS is to be applied to the system(s).

11. The SEMP **should** be used to set out and record the safety and environmental management arrangements for the system(s), and the actions and processes to be followed to ensure safe operation and support of the system(s).

12. The SEMP **should** state the responsibilities of both MOD and its contractors for the management of safety and environmental protection.

13. The SEMP **should** typically include the following:

a. a high-level description of the system(s);

b. key safety and environmental requirements;

c. applicable legislation;

d. tolerability criteria;

e. risk management processes, including the definition of applicable methodologies for example, hazard identification and analysis techniques;

f. the identification of tools for example, hazard log tool, hazard analysis tools, environmental features matrix tool etc;

g. the safety and environmental programme;

h. the audit plan;

i. a list of deliverables.

14. Further guidance on the development of a SEMP is detailed in Defence Standard (Def Stan) 00-056 (Internal Defence Gateway access only).

103 - Assurance

Regulation	Accountable Persons **shall** make sure that suitable and sufficient assurance activities are in place to demonstrate compliance with DLSR regulations.
Provenance	The Health and Safety at Work, etc. Act 1974. The Management of Health and Safety at Work Regulations 1999. Environmental Protection Act 1990. Environment Act 2021. JSP 418 – Management of Environmental Protection in Defence. JSP 815 - Defence Safety Management System Framework. JSP 816 - Defence Environmental Management System.
Acceptable Means of Compliance	1. Accountable Persons **should** periodically: a. ensure organisations conduct their own First Line of Defence (1LOD) Assurance activities, inspections and report management information; b. ensure that Second Line of Defence (2LOD) Assurance activities of safety and environmental management arrangements are in place; c. assess that suitable risk assessments are carried out to mitigate against HS&EP hazards; d. assess that assurance is conducted in a manner and regularity in-line with the perceived risk, including independent assessment where appropriate; e. review and accept information gathered via assurance activities; f. use assurance activity data to review and update relevant processes. 2. Assurance **should** verify that: a. inspections are held at appropriate intervals; b. non-compliances are reported and corrective actions are taken in a timely manner; c. records of assurance activities are maintained and accessible to relevant stakeholders including DLSR.

	3. Accountable Persons **should** provide evidence, where requested, to support DLSRs regulatory processes. This could include evidence demonstrating that: a. activities are being performed in line with internal policies and procedures; b. relevant requirements are correctly understood at all levels; c. activities comply with HS&EP legislation and standards (including JSP 815 and JSP 816); d. 1LOD Assurance and 2LOD Assurance reports have been acted upon. 4. Accountable Persons **should** work with the assurance process to be able to identify: a. opportunities to improve the management system(s); b. opportunities to raise awareness of HS&EP issues; c. training needs and inform the 1LOD Assurance management review and 2LOD Assurance processes and develop good practice.
Further Guidance	JSP 815 - Defence Safety Management System Framework. JSP 816 - Defence Environmental Management System. DLSR 200 Series regulations for content concerned with Adventurous Training Safety and Environmental regulations. DLSR 300 Series regulations for content concerned with Fuel and Gas Safety and Environmental regulations. DLSR 400 Series regulations for content concerned with Land Systems Safety and Environmental regulations. DLSR 500 Series regulations for content concerned with Movement and Transport Safety and Environmental regulations. DLSR 600 Series regulations for content concerned with Land Systems Certification.

104 - Environmental Protection

Regulation	Accountable Persons **shall** make sure that all practical steps are taken to prevent, mitigate and remedy environmental damage, pollution, nuisances and biosecurity effects caused by Defence Land Domain activity.
Provenance	Environmental Protection Act 1990. Environmental Damage (Prevention and Remediation) (England) Regulations 2015. Environmental Damage (Prevention and Remediation) (Wales) Regulations 2009. Environmental Liability (Scotland) Regulations 2009. Environmental Liability (Prevention and Remediation) Regulations (Northern Ireland) 2009. The Environmental Noise (England) Regulations 2006, S.I. 2006 No. 2238. The Environmental Noise (Wales) Regulations 2006, W.S.I. 2006 No. 2629. The Environmental Noise (Scotland) Regulations 2006, S.S.I. 2006 No. 465. The Environmental Noise (Northern Ireland) Regulations 2006, S.R. 2006 No. 387. Environment Act 2021. Wildlife and Countryside Act 1981. Conservation of Habitats and Species Regulations 2017. Guidelines for Regulating Wood Packaging Material for International Trade. The regulatory legislations and policies listed above apply in relation to the prevention and remediation of environmental damage, pollution and nuisances. Derogations, Exemptions or Disapplications (DEDs) for elements of these regulations currently exist. To uphold the regulatory intent there is a requirement for a Defence regulation to ensure that Defence Land Domain activities do not lead to: a. unnecessary damage to the environment and eco-systems; b. damage to the environment causing harmful health effects to humans and wildlife; c. environmental legal action including fines and compensation (polluter pays principle); d. complaints from local populations and reputational damage to the MOD; e. the spread of invasive and alien species (both plants and animals) within the UK and overseas.

Acceptable Means of Compliance	1. Accountable Persons **should** assess potential environmental damage, pollution and nuisance in their Defence Land Domain plans, policies, and procedures for their area of responsibility. 2. These plans, policies and procedures **should** demonstrate the prevention or mitigation of environmental effect. 3. Where there is an imminent threat of environmental damage, pollution or nuisance, the Accountable Person **should** immediately take all practicable prevention steps and identify measures that will achieve the remediation of the environmental effect. 4. Where the activity has caused environmental damage or pollution, or has caused damage where there are reasonable grounds to believe that the damage / pollution has or will become environmental damage, the Accountable Person **should** immediately: a. take all practicable steps to prevent further damage or pollution; b. identify measures that will achieve the remediation of the environmental damage or pollution; c. notify all relevant details to the Accountable Person / Duty Holder, the DLSR and as appropriate, the relevant Statutory Regulators. **Acceptable Means of Compliance Relevant to Movements and Transport Activity** 5. **Biosecurity**. Management systems **should** be put in place to comply with local authority, national and international legislative requirements and to prevent a biosecurity risk or damage to the environment. 6. Those responsible for the planning of M&T activity **should** seek country specific advice based on an environmental risk assessment from the appropriate competent authority. Liaison with appropriate specialist agencies may be required prior to the dispatch of any vehicle, equipment or Cargo Transport Unit (CTU). 7. Arrangements **should** be in place to make sure that personnel and equipment do not add to the biosecurity threat. Arrangements **should** include: a. **Preparation activity**. Prior to transportation across international borders, all vehicles, CTUs and equipment are to be cleaned and the relevant documentation raised in accordance with any procedures and standards required by departure, destination and transiting countries. b. **Cleaning location**. Washdown locations **should** be as close to the point of loading where possible to mitigate against the risk of re-contamination post-cleaning. c. **Contamination / infestation**. At the point of loading / unloading and transhipment points, vehicles, CTUs and equipment are to be thoroughly checked for signs of contamination / infestation.

d. **Cross contamination**. If any item of un-cleansed equipment travels in the same transport platform as cleansed items, the whole cargo is deemed to have been contaminated and will need re-cleansing and certifying.

e. **Timber products**. For international transport only, wood / timber (packages / pallets / dunnage etc.) meeting the requirements of the International Standards for Phytosanitary Measures publication 15, entitled Guidelines for Regulating Wood Packaging Material for International Trade (ISPM 15) is to be used.

f. **Contingency procedures**. Units and enabling organisations at transhipment points and final destination locations **should** have contingency procedures in place to clean vehicles, CTUs and equipment that has arrived contaminated.

8. **Water and land pollution**. Management systems **should** be put in place to prevent M&T activity from contaminating water sources and land. This **should** include:

a. vehicle washing and cleaning activity **should** be carried out in designated areas that are clearly marked and isolated from surface water drainage systems, unmade ground or porous surfaces. Designated washing areas **should** also:

(1) have procedures in place that cover where and how vehicle washing and cleaning **should** be carried out and what to do in a spillage emergency;

(2) have procedures in place to cover where, and how, to store and handle vehicle washing chemicals;

(3) provide notices for designated washing areas saying what they're for and that washing and cleaning **should** only be carried out in the designated area;

(4) consider whether a fence or barrier is required to prevent spray or wind drift out of the designated area;

(5) have procedures and equipment which minimises water use and solid waste production;

(6) have procedures and equipment in place to channel contaminated water into foul water drains or disposed of by other environmentally safe methods.

b. immediate action **should** be taken to minimise potential damage to the environment from harmful substances caused by events such as vehicle oil leaks and fuel spills;

c. pollution incident response procedures **should** be created and maintained to consider all eventualities and updated to reflect changing site circumstances;

	d. routine operator / driver vehicle and equipment maintenance checks **should** be conducted to minimise the risk of oil, fuel and lubricant leaks. 9. **Environmental nuisance – light, noise and vibration**. Management systems **should** be put in place to minimise environmental nuisances caused by light, noise and vibration. This **should** include: a. transport platform engines should not be left running while the vehicle is stationary and the engine is not required; b. only use horns and sirens in compliance with national legislation; c. transport platform engines **should** not be left running unnecessarily while the vehicle is stationary; d. vehicle tyre pressures to be maintained correctly; e. vehicle lights to be switched off when not required; f. multiple vehicle activity such as staging or marshalling area considerations: (1) located away from populated areas; (2) if near populated areas then consider restricting activity to daytime operations only; (3) chose entry and exit routes into the activity area that avoid populated areas.
Further Guidance	JSP 816 - Defence Environmental Management System. Regulation (EC) No 1005 / 2009 of the European Parliament and of the Council of 16 September 2009 on substances that deplete the ozone layer, 1005 / 2009 / EC. Environmental Act 2021. Road Traffic Act 1991. ISPM 25: Consignments in Transit. BS ISO 14001-2015: Environmental Management Systems Def Stan 00-051 Environmental Management requirements for Defence Systems. (Internal Defence Gateway access only) JSP 418 – Management of Environmental Protection. JSP 392 – Management of Radiation Protection. DLSR 200 Series regulations for content concerned with Adventurous Training Safety and Environmental regulations.

	DLSR 300 Series regulations for content concerned with Fuel and Gas Safety and Environmental regulations. DLSR 400 Series regulations for content concerned with Land Systems Safety and Environmental regulations. DLSR 500 Series regulations for content concerned with Movement and Transport Safety and Environmental regulations. DLSR 600 Series regulations for content concerned with Land Systems Certification. Defence Environmental Protection Regulator (DEPR) regulations

105 - Competence and Currency

Regulation	Accountable Persons **shall** make sure that all personnel possess the combination of appropriate and current: knowledge, skills, experience and behaviours, that allow them to make informed decisions and carry out a defined task (perform or supervise), along with the currency of that knowledge, skills, experience and ability to apply it in a given work situation.
Provenance	Health and Safety at Work, etc. Act 1974. Provision and Use of Work Equipment Regulations 1998. Environmental Protection Act 1990. Environment Act 2021. JSP 418 – Management of Environmental Protection in Defence.
Acceptable Means of Compliance	1. The competence of individuals at all levels of the organisation is vital as it "ensures they recognise the risks in their activities and can apply the appropriate measures to control and manage those risks". 2. Each job role **should** have clearly specified duties, resource requirements, along with the appropriate levels of competence and currency required for the safe conduct of that role identified recorded and managed. 3. Accountable Persons **should** make sure that: a. a competency framework exists to define the minimum level of competence, including currency, with clearly articulated criteria for each role; b. the organisation applies the four key aspects of competence, the individuals: knowledge of the subject (including knowledge of the environment); skills, experience and personal qualities, along with the currency of the individual when assessing their ability to perform the role or function. Assessments **should** include identifying and recording: (1) requirements for role / activity (including considerations for: weather conditions, location / environment etc); (2) requirements for qualifications (including refresher training, requirements for appropriate qualifications or membership of a relevant professional bodies etc.); (3) currency requirements (including when was the individual last trained; last operated in the role / conditions etc.); (4) work experience requirements (including how long qualified, how much exposure to the task – last assessed in the role, was this at operator of supervisor level?); (5) the personal qualities required of the individual;

	(6) competence requirements for assignments are published and reviewed at least every 12-months; (7) training and competence deficiencies are identified via line management assessment, recorded and reported as risks; (8) personnel competencies gained and training completed are recorded. c. Arrangements are in place to make sure that all requirements of functional policy* are met, (including Certificates of Competency requirements for Fuel and Gas activities, and Instructor / Student ratios for Adventurous Training activities etc.) *See Further Guidance
Further Guidance	DLSR Regulation 105 Guidance – Competence and Currency (Internal MOD access only) JSP 815: Defence Safety Management System JSP 816: Defence Environmental Management System JSP 375: Management of Health and Safety in Defence JSP 317: Joint Service Safety Policy for the Storage and Handling of Fuels, Lubricants and Associated Products JSP 319: Joint Service Publication for the Safe Storage and Handling of Gases JSP 419: Adventurous Training in the UK Armed Forces (Internal MOD access only) JSP 800: Defence Movements and Transport Policy (Internal MOD access only) JSP 814: Policy and Regulations for Ministry of Defence Sponsored Cadet Forces (Internal MOD access only) BS ISO 45001:2018: Occupational health and safety management systems BS ISO 14001:2015 Environmental Management Systems

106 – Duly Authorised Organisations

Regulation	Duly Authorised Organisations authorised by DLSR to conduct specific activities **shall** demonstrate compliance with their respective Charter.
Provenance	DSA 01.1 Regulations (June 2023) DSA 01.2 Assurance (June 2023)
Acceptable Means of Compliance	1. A Duly Authorised Organisation (DAO) will be an organisation that provides second party assurance to respective Defence organisations and Accountable Persons within a specific, defined, area of responsibility that requires HS&EP regulation by the DLSR. 2. A DAO will only be appointed when it contains specialist Suitably Qualified and Experienced Person in the specific area of responsibility, that is not currently replicated in DLSR to the level required, to provide additional detailed assurance. 3. A DAO will hold a Charter from the DLSR. The Charter will provide definition of the DAOs specific area of responsibility, its scope and outputs, and will be agreed with the Defence organisations / Host Units. 4. A DAO will provide the DLSR with sufficient confidence in its assurance activities within its specific area of responsibility such that the DLSR judges that further assurance activity is not required. 5. Where a DAO identifies serious non-compliances through their assurance activities within their specific area of responsibilities, they may request the DLSR to take enforcement action. 6. The resource required for a DAO to meet its Charter-defined outputs, as agreed by the Defence organisations / Host Units, cannot be reduced without consultation with DLSR. Conversely DLSR cannot increase the scope of a DAO without consultation with the Defence organisations / Host Units.

Defence
Safety Authority

DSA DLSR Adventurous Training and Safety Regulator

Adventurous Training Safety and Environmental Regulations

Contents

200 Series - Adventurous Training Safety and Environmental Regulations

1. This series describes the requirements for the assurance and licensing of:

   a) Defence Adventurous Training (AT) Centres conducting JSP 419 (Internal MOD access only) authorised Joint Service Adventurous Training (JSAT) activities and, occasionally, other adventurous / hazardous activities (as defined in single Service (sS) policies).

   b) MOD Sponsored Cadet AT Centres conducting JSP 814 (Internal MOD access only) adventurous activities.

2. AT and other sS / Cadet adventurous / hazardous activities are considered as high-risk and require Defence regulation. There must be appropriate 1st, 2nd and 3rd Line of Defence (LOD) Assurance in place:

   a) 1LOD Assurance – at least annually (notwithstanding at AT Centres this is a continuous process).

   b) 2LOD Assurance – 12 to 36 months (risk based).

   c) 3LOD Assurance – no longer than 36 months (risk based).

3. Some Defence AT Centres and all MOD Sponsored Cadet Centres conduct activities that are not classified within the JSAT scheme but are still adventurous / hazardous in nature and require Defence assurance. These regulations will apply to them equally.

4. DLSR 200 Series regulations should be read in conjunction with the 100 Series regulations.

5. Compliance with the 200 Series regulations is mandatory and failing to comply can lead to enforcement action being undertaken.

201 - Adventurous Training Safety Advice

Formerly ATSR Regulation 4

Regulation	Accountable Persons **shall** make sure they can access safety and environmental advice from competent people for the activities delivered at their Centre(s).
Provenance	Health and Safety at Work, etc. Act 1974 JSP 815 Vol 2 Elements 2, 6 and 7
Acceptable Means of Compliance	1. Accountable Persons **should** be able to demonstrate that they have access to advice from competent persons on activities delivered at their Centre(s). 2. If there is insufficient expertise available within the Centre, advice **should** be sought from the lead service / sponsor / National Governing Body (NGB) / Technical Advisor for the activity being delivered.
Further Guidance	JSP 375 - Management of Health and Safety in Defence. JSP 419 - Adventurous Training in the UK Armed Forces. (Internal MOD access only) JSP 814 - Policy and Regulations for MOD Sponsored Cadet Forces (Cadets only). (Internal MOD access only) Activity specific NGB guidance.

202 - Adventurous Training Equipment

Formerly ATSR regulation 6

Regulation	Accountable Persons **shall** make sure that all AT equipment is fit for purpose, properly maintained, users are trained in its use, it is routinely inspected by a competent person, and serviced when necessary. Damaged or outdated equipment shall be disposed of appropriately**.**
Provenance	Health and Safety at Work, etc. Act 1974. Provision and Use of work Equipment Regulations 1998 (PUWER). Provision of Personal Protective Equipment 2016. Provision of Personal Protective Equipment (Enforcement) Regulations 2018. Personal Protective Equipment at Work (Amendment) Regulations 2022. Diving at Work Regulation 1997 Para 6(3)(b)(c). Work at Height (Amendment) Regulations 2007. Lifting Operations Lifting Equipment Regulations 1998 (LOLER). Personal Protective Equipment at Work Regulations 1992.
Acceptable Means of Compliance	1. Equipment. Accountable Persons **should** make sure that sufficient personal and other safety equipment, appropriate to the activity and the person, is available for use by all participants. They **should** have arrangements to ensure it is serviceable, fit for the purpose intended, correctly sized, compatible with other equipment in the system, fitted at the start of each session and checked appropriately during the session. Where applicable, equipment **should** meet the appropriate Defence, National, European or International Standard. 2. Maintenance. Accountable Persons **should** have arrangements to ensure equipment used by participants is subject to appropriate checks, by a competent person, and the results are suitably recorded. Equipment **should** be serviced and maintained by a competent person, with manufacturers or suppliers' recommendations taken account of. Before, during and after each use, equipment **should** be checked to make sure it is safe to use. There **should** be a system for identifying, quarantining and, if appropriate, disposing of equipment that has been withdrawn as not safe to use. 3. Contracted out Activity Provision. Accountable Persons **should**, where activities are delivered by third parties, ensure that their equipment meets the requirements above. 4. Safety Issues or Recalls. Accountable Persons **should** have access to safety notices regarding AT personal and other safety equipment.
Further Guidance	JSP 375 Vol 1 Chap 15.

203 - Emergency Action Planning and First Aid

Formerly ATSR regulation 7

Regulation	Accountable Persons **shall** make sure there are plans for emergency, and first aid, situations in place with all staff briefed on their roles and responsibilities. All instructors **shall**, if required by their qualification, have a current and relevant first-aid certificate.
Provenance	Health and Safety at Work, etc. Act 1974. JSP 815 Vol 2 Element 10. JSP 375 Vol 1 Chap 1 and 5. JSP 814 Pt 1 Para 12.7 and 12.8. (Internal MOD access only)
Acceptable Means of Compliance	1. Emergency Action Planning. Accountable Persons **should** make sure that adequate emergency arrangements are developed, exercised, evaluated, and regularly reviewed. 2. Accountable Persons **should** make sure that all personnel are fully aware of the action(s) to take in the event of an emergency. Participants **should** be briefed on the procedure in the event of their instructor becoming incapacitated. As activities are often carried out in remote and difficult to access areas emergency plans **should** be tested at least once each year. Consideration **should** be given to the use of external agencies for example, Mountain Rescue, Royal National Lifeboat Institution. A post-exercise review **should** be conducted, documented and findings communicated to all stakeholders. If the review indicates the need to change procedures, risk assessments and / or other related documentation they **should** be updated and reassessed as soon as possible. 3. First Aid Requirements. Accountable Persons **should** make sure that all participants are accompanied by, or have ready access to, at least one responsible person with a valid, appropriate first-aid qualification. Most NGB qualifications require the holder to have a current first-aid certificate for their qualification to be valid. Where groups are unaccompanied in the field, at least one member of each group **should** be trained in emergency procedures and carry appropriate equipment.
Further Guidance	JSP 375 Vol 1 Chap 41 and 42. Health and Safety (First-Aid) Regulations 1981.

204 - Adventurous Training Centre Licencing

Formerly ATSR regulation 9

Regulation	Accountable Persons **shall** make sure that their Centre(s) hold a valid licence issued by the Adventurous Training Safety Regulator (ATSR).
Provenance	Activity Centres (Young Persons' Safety) Act 1995. The Adventure Activities Licensing Regulations 2004. DSEC RODs 2015.
Acceptable Means of Compliance	1. Accountable Persons **should** make sure that their Centre(s) holds a valid licence issued by the Adventurous Training Safety Regulator. 2. Accountable Persons **should** ensure that the ATSR is contacted at least 3-months prior to their current licence expiring. No activities **should** be delivered without a valid ATSR issued licence.
Further Guidance	If a Centre licence expires then the ATSR **should** be contacted before activities can be delivered to discuss the process for re-licencing.

205 - Adventurous Training Risk Assessments

Formerly ATSR regulation 5

Regulation	Accountable Persons **shall** make sure they have suitable and sufficient risk assessments for activities delivered at their Centre(s), and they are reviewed regularly.
Provenance	Health and Safety at Work, etc. Act 1974. JSP 815 Vol 2 Element 4.
Acceptable Means of Compliance	1. Accountable Persons **should** consider all foreseeable hazards arising from taking part in activities at their Centre(s), as well as any hazards relating to the immediate physical workplace (for example, weather, water levels, avalanche conditions). The risk assessment(s) should: a. fully identify and describe the activities or processes; b. identify all foreseeable hazards; c. identify how people may be harmed; d. consider who is likely to be exposed, how and for how long (including third parties who may be affected due to their proximity); e. identify the potential severity of the harm; f. evaluate the residual risk with all required control measures in place; g. identify and communicate the required control measures; h. consider the findings of other related risk assessments that may impact on the activity. 2. MOD Form 5010 is the recommended template for recording risk assessments although other forms may be acceptable. They **should** be signed, dated, formally recorded, periodically reviewed, and updated, when required.
Further Guidance	JSP 375 Vol 1 Chapter 8 - Risk Assessments. JSP 892 Risk Management. (Internal MOD access only) JSP 814 - Policy and Regulations for MOD Sponsored Cadet Forces (Cadets only). (Internal MOD access only)

206 – High-Risk Sport Regulations

(New Regulation – subject to DSEC agreement)

This series describes the requirements for the conduct of on-duty Sport as detailed within JSP 660 (Internal MOD access only).

Certain sports are considered as a high-risk which will be subject to risk based ATSR 3LOD Assurance scrutiny. The current high-risk sports are as follows:

Sport	Sub-disciplines where relevant
Archery	-
Boxing	-
Canoeing	Sprint, Marathon, Slalom, Surf, Wild Water Racing, Polo & Freestyle
Equestrian	Eventing disciplines, Horse racing, Tent pegging
Fencing	-
Flying	Microlight & Powered Aircraft
Gliding	-
Hang Gliding	-
Judo	-
Martial Arts	Ju Jitsu, Karate, Kendo & WFT/ITF Taekwondo
Kite Surfing	-
Modern Pentathlon	-
Motor Sports	2 Wheel Road, 2 Wheel Trial, 2 Wheel Enduro, 2 Wheel Motocross, 4 Wheel Car Racing (Sprint & Circuit), 4 Wheel Navigation, Rally, Karting
Paragliding	-
Polo	-
Sailing	Offshore, Dinghy & Windsurfing
Sport Climbing	-
Sport Parachuting	-
Surfing	-
Water Skiing/Wake Boarding	-
Winter Sports	Alpine Skiing, Snowboarding, Bobsleigh, Skeleton Bob, Luge, Tobogganing (Cresta), Biathlon/Cross Country, Telemarking

DLSR 200 Series regulations should be read in conjunction with the 100 Series regulations.

Compliance with Defence regulations is mandatory and failing to comply can lead to enforcement action being undertaken.

206 High- Risk Sport

Regulation	Accountable Persons **shall** ensure that suitable and sufficient arrangements are in place for the safety of people taking part in Sport when conducted on duty.
Provenance	Health and Safety at Work etc. Act 1974. JSP 660 Sport in the UK Armed Forces (Internal MOD access only).
Acceptable Means of Compliance	1. Accountable Persons within the sS and UK Armed Forces Sports Boards **should** make sure: a. they formally appoint Chairpersons via a letter that highlights their responsibilities relating to the safe delivery of the activity; b. they define which sports are classed as high-risk within their overarching sports policy documentation; c. 2LOD Assurance activity is conducted at least every 2 years for high-risk sports and no longer than 3 years for all other sports. Suitable and sufficient reports are to be raised for all 2LOD Assurance. 2. Accountable Persons within each Sport Association **should** make sure: a. they satisfy relevant NGB requirements for the conduct of that activity, if applicable; b. they have a Sports Safety Management Plan (SMP) in place that is reviewed and where necessary amended at least annually. The SMP should highlight whether their sport is classified as high-risk and have an appropriate Emergency Action Plan (EAP) in place; c. 1LOD Assurance Self-Assessment activities are carried out at least annually; d. suitable and sufficient risk assessments are in place for all activities; e. where applicable suitable and sufficient medical arrangements are in place. 3. Equipment is accounted for appropriately and where applicable routinely checked by a competent person with checks being recorded.
Further Guidance	JSP 815 Part 1 - Defence Safety Management System (SMS) Framework. JSP 375 Vol 1 Chapter 8 - Risk Assessments. The Work at Height (Amendment) Regulations 2007. The Personal Protective Equipment at Work Regulations 2016 (Amendment 2022). The Provision and Use of Work Equipment Regulations (PUWER) 1998. The Lifting Operations and Lifting Equipment Regulations (LOLER) 1998.

Defence
Safety Authority

DSA DLSR Fuel and Gas Safety Regulator

Fuel and Gas Safety and Environmental Regulations

Contents

300 Series: Fuel and Gas Safety and Environmental Regulations

1. This series describes the requirements for bulk Fuel and Gas Storage (F&GS) throughout the MOD Estate.

2. Bulk F&GS is considered as a high-risk activity requiring Defence regulation.

3. The Fuel and Gas Safety Regulator (FGSR) is appointed to provide independent regulation of F&GS. FGSR also undertakes the role of Local Authority for the certification of MOD petrol storage facilities.

4. 300 Series regulations are applied from the point where bulk F&GS is received into MOD infrastructure up to the point where it is issued for use. This typically includes the following facilities:

   a. Ancillary Storage Tanks (AST) such as heating oil and standby generator fuel tanks;

   b. Bulk cryogenic Liquid Storage Installations;

   c. Bulk Fuel Carry Vehicles (BFCV) parking areas;

   d. Bulk Fuel Installations (BFIs);

   e. Bulk Liquid Petroleum Gas (LPG) Storage Installations;

   f. Bulk Transportable Industrial Gas Cylinder Stores;

   g. the storage of Bulk Waste Fuel;

   h. Joint Operational Fuel Systems (JOFS);

   i. Motor Transport Fuel Installations (MTFIs);

   j. Oil Fuel Depots (OFDs); including Petroleum Storage Depots;

   k. Packed Fuel and Lubricant Storage Facilities.

5. DLSR 300 Series regulations should be read in conjunction with the 100 Series regulations.

6. All people engaged in any F&GS activity should meet the requirements of DLSR 100 Series and 300 Series regulations.

301 - Fuel and Gas Risk Assessments

(Formerly FGSR regulation 3)

Regulation	Accountable Persons **must** make sure that F&GS facilities have suitable and sufficient risk assessments for all processes and activities involving gases, fuel and lubricants which are reviewed on a regular basis. Where a risk assessment identifies a requirement, the finding must be acted upon.
Provenance	The Management of Health and Safety at Work Regulations 1999.
Acceptable Means of Compliance	1. All modern safety and environmental management systems are based on the accurate assessment and control of risk. In order for a site to be certified by FGSR as fit for continued operation, it **must** be able to demonstrate that it has suitable and sufficient risk assessment systems in place to identify and adequately control all significant risks. 2. Although there are different risk assessments for different aspects of operation, they **should** follow the same five-step philosophy. These steps are as follows: a. identify the hazard; b. identify who might be harmed and how; c. evaluate the risks and decide on control measures (see Para 3); d. record and implement findings; e. review the assessment on a regular basis and update if necessary. 3. Similarly, when risks are identified, there are five methods by which the risks are to be managed. These are set in a hierarchy as follows: a. eliminate / reduce (removing the hazard will remove the risk); b. substitute (replace the hazard with less hazardous process); c. isolate / guard against (railings, guards etc.); d. set procedure (rules and training); e. protect those at risk (Personal Protection Equipment). 4. **Competence.** Risk assessments **must** be carried out by competent persons. Competent persons are people who, by way of training and / or experience, are suitably qualified to identify, assess and make informed decisions on the risks encountered for a given process. For certain complex or high-risk processes, it may be necessary to employ a team of competent persons. For example, a process owner has expert knowledge of the process, a risk assessor can identify the inherent risks, and a manager can initiate remedial action. Once complete, the risk assessment **should** be sanctioned by the person with the appropriate authority and responsibility to decide when the level of risk is as low as reasonably practicable and tolerable.

5. **Review**. Risk assessments **should** be reviewed at regular intervals or when there is a significant change in the process or infrastructure. When examining any form of risk assessment process (Control of Substances Hazardous to Health (COSHH), the Dangerous Substances and Explosive Atmospheres Regulations 2002 (DSEAR) etc.), FGSR inspectors look for evidence of adherence to the methodologies described above.

6. **Types of Risk Assessment.** The main hazards identified with F&GS are: fire, explosion (see also DSEAR), health (i.e. COSHH) and environment (pollution). Storage of industrial gases also includes the physical hazards such as high pressure and cold temperature and the toxicity hazards presented by the gases themselves. In the course of their inspections, FGSR will typically examine five types of safety risk assessment. These are as follows:

a. site hazard survey / risk assessment;

b. activity risk assessment (incl. emergencies, fire etc.);

c. COSHH risk assessment;

d. DSEAR risk assessment;

e. lightning risk assessment.

7. **Site Hazard Survey / Risk Assessment.** This process is carried out at unit command level and is the starting point for all other risk assessments. JSP 375 Vol.1 Chap 8 states:

> "Procedures need to be in place to pull together information on significant residual risks from individual activities in support of the normal operation of the defence estate, unit or platform. This information should be evaluated to identify the consolidated risk and used to inform the centrally managed mitigation measures (traffic management, emergency procedures, first aid requirements etc.)"

8. FGSR would expect to see an assessment which covers all site hazards / risks but includes the bulk storage of fuels / gases as a noted residual risk. (MOD establishments typically use Annex B to JSP 375 Vol.1 Chap 8 to record site Hazards).

9. **Activity Risk Assessments.** All activities and processes involving the storage and issue of fuels and gases **should** be adequately risk assessed and documented. Examples of processes include fuel transfer / delivery, fuels testing, vehicles and movements etc. As well as routine procedures, abnormal procedures such as maintenance and unforeseen events such as breakdowns and emergencies **should** be considered. Although other formats can be acceptable, MOD establishments typically use MOD Form 5010 as described in JSP 375 Vol.1 Chap 8.

10. **COSHH.** COSHH requires that all substances which present a health risk are adequately assessed and controlled. Although other systems and formats can be acceptable, MOD establishments typically use the procedure described in JSP 375 Vol.1 Chap 11.

	11. **DSEAR.** Areas and processes which possess the risk of producing an explosive atmosphere are subject to the requirements of DSEAR. DSEAR requires that such processes are adequately assessed, documented and controlled. The methodology for compliance with DSEAR is covered in more detail in regulation 303. 12. **Lightning.** A risk assessment is required to determine if the facility is deemed as susceptible to lightning, a verdict of 'not applicable' **should** be documented and justified by a competent authority. If there is a significant risk of lightning, BS EN 62305 is to be consulted to determine the applicability and nature of lightning protection required. 13. In summary, risk assessments are required for all aspects of F&GS ranging from generic site-wide assessments through to specific activities. Furthermore, certain processes such as COSHH and DSEAR require assessment in order to comply with specific legislation. It is crucial that those responsible for fuel and gas management are actively involved in the risk assessment process, and that the measures identified by assessment are suitable, sufficient and enabled. 14. **What Good Looks Like.** For a site to be fully compliant with this regulation, it **must** have a comprehensive set of risk assessments that are accurate, in date, undertaken by competent persons and signed by the appropriate authority. All risk assessments **must** be reviewed at regular intervals or whenever there is a change in circumstances which could affect the accuracy of the risk assessment.
Further Guidance	JSP 375 – Management of Health and Safety in Defence, Volume 1, Chapters 8 (Risk Assessment), 9 (DSEAR), 11 (Hazardous Substances) and Volume 3 Chapter 5 (Petroleum Installations).

302 - Fuel and Gas Emergency Arrangements

Formerly FGSR regulation 4

Regulation	Accountable Persons **must** make sure that F&GS facilities have suitable and sufficient emergency arrangements.
Provenance	The Dangerous Substances and Explosive Atmospheres Regulations 2002. Regulatory Reform (Fire Safety) Order 2005. The Control of Major Accident Hazards Regulations 2015. The Merchant Shipping (Oil Pollution Preparedness, Response and Co-operation Convention) Regulations 1998, as amended (2015).
Acceptable Means of Compliance	1. All MOD establishments which handle bulk fuels / and gases **must** have emergency arrangements. Emergency arrangements **should** be appropriate to risk, documented, practiced, distributed to stakeholders and reviewed on a regular basis. Within FGSR the collective name for this process is the Emergency Plan or Unit Spill Response Plan (USRP). 2. Emergency arrangements **shall:** a. dictate the scale and nature of the USRP so that the response is targeted and proportionate to the risk, as well as analysing data from any previous accidents, emergencies, spills and exercises on site; b. identify the potential for incidents and accurately describe the actions needed to provide an effective response; c. identify the personnel and equipment needed to respond to the incident and their specific roles; d. include the provision of appropriate first aid facilities and relevant safety drills (which shall be tested at regular intervals); e. make readily available suitable information, warning and other communication systems to enable an appropriate response to be made immediately when such an event occurs; f. ensure that where the site risk assessment indicates it is necessary to escape, facilities are provided and maintained so that personnel can escape to a safe place promptly and quickly. 3. **Training and Exercises.** For an emergency plan to be effective, all personnel that will be involved **must** fully understand their responsibilities and be competent in their roles. In addition to formal and role-specific training, it is vital to undertake practical exercises. The site environmental risk assessment **should** indicate the level and frequency of emergency (for example, spill response) exercises which can range from an in-unit desktop study through to a full deployment of personnel and equipment with interfaces with outside agencies (for example, emergency services).

4. In some instances, these plans may form part of a larger emergency incident plan (Major Accident Control Regulations (MACR)– DSA03-OME Part 4 (previously JSP 498) or Major Accident Prevention Plan, or Safety Report). There may also be a requirement for a copy of the plans to be submitted to Civil Authorities for information and / or authorisation. If a spill could enter the sea from a MOD site operating on a shoreline, or within a location managed under Naval Base King's Harbour Master (KHM) / civilian Harbour Master, then other legislation will be affected i.e. The International Convention for the Prevention of Pollution from Ships / International Convention on Oil Pollution Preparedness, Response and Co-operation.

Specialist Advice

5. When developing an emergency plan, it is important to engage with the specialists who will inevitably be involved in an emergency response. Relevant technical Subject Matter Experts that **should** be engaged include:

a. MOD Estate Facilities Manager / Property Manager. Maintenance Management Organisations (MMOs) for example, Regional Prime Contractors, Integrated Service Providers etc;

b. Aquatrine Service Providers;

c. Defence Fire Service;

d. Authorised Persons (AP) for example, AP (Petroleum), AP (Electrical);

e. Pollution Control Officer;

f. Pollution Response Teams;

g. Site Operators;

h. external agencies, such as local emergency services, Harbour Masters, Naval KHM or the MOD contractor for Emergency Pollution Response Service.

Format of Emergency Plans

11. **Standardised Format**. Emergency Plans **should** be produced to a standard format, and worked examples are found at the FGSR –DSA website (Internal MOD access only). The key points concerning the suggested format are:

a. the standard format is a framework – information contained within the framework of emergency plans shall be unit specific;

b. the adoption of the standard format across MOD will ensure the following:

(1) standardisation across MOD;

(2) improved understanding of emergency procedures by operators moving between units as the structure of the information, specifically the annexes, should be the same for each unit;

(3) improved understanding by inspection and audit teams;

(4) improved integration with other emergency incident plans (Control of Major Accident Hazards (COMAH) / Major Accident Prevention Policy, Naval KHM Tier 2 shoreline spillage response plans).

c. the key to success is sound decision-making, particularly in the early stage of the incident and at the decision of Tier categorization;

d. the plan **should** be clear, concise, written in the appropriate language and easily understood. The plan **should** be assessed against human factors: this is because it is designed to be used in an emergency, and misunderstandings could lead to delay, further risk or harm. In addition, the plan may be distributed outside the MOD to agencies who are not familiar with MOD writing conventions;

e. the plan **should** be disseminated to all stakeholders and if required be dovetailed into larger emergency plans when emergencies escalate or when the site is part of a larger enterprise (harbour front, garrison etc.).

Plan Review / Amendment

13. To ensure the plan remains accurate, it **must** be reviewed and updated as required, annually as a minimum. Review and amendment **should** take place following an incident or exercise, so that lessons can be incorporated.

Records and Reporting

14. In the event of an incident, it is important to keep accurate records. The record **should** include details of all actions taken, communications with outside agencies, a summary of all key decisions made, and details of all expenditure incurred. The unit's Health and Safety Officer is responsible for maintaining records. Some incidents may require reporting under Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR) or MACR / COMAH.

Coastal Establishments

15. The Maritime and Coastguard Agency (MCA) Contingency Planning for Marine Pollution Preparedness and Response - Guidelines for Ports, define a category B Port as "Any harbour and any oil handling facility offering berths alongside, on buoys or at anchor, to ships of over 400 gross tonnage or oil tankers of over 150 gross tonnage". This caveat includes most MOD ports and harbour facilities.

16. The Merchant Shipping (Oil Pollution Preparedness, Response and Co-operation Convention) Regulations 1998, as amended (2015) legislate that all such ports **must** have suitable and sufficient spill response commensurate to their Ports' activities (Tier 1). 'In-house' trained responders **must** be trained to an MCA accredited scheme.

17. 'Medium' Tier 2 spill can either be handled 'in-house' or by an accredited Tier 2 Responder. Both in-house and external responders **must** be accredited by the MCA, and **shall** have a formal arrangement, be available 24-hours / 365-days and be able to respond on site within 6-hours.

	18. A 'large' Tier 3 spill is one where substantial resource are required, which will be sourced from the MCA National Contingency stockpile and be subject to government controls. 19. Operators and managers of MOD Port and Harbour Facilities that fall into the caveats of the MCA Contingency Planning for Marine Pollution Preparedness and Response regime **shall** ensure that all their personnel are trained to the appropriate level, all Pollution Control Equipment is fit for purpose and maintained correctly, and that suitable and sufficient planning and training is carried out. 20. In summary, while prevention measures are crucial, the risk of fire, accident or a significant pollution event cannot be ruled out, and it is therefore a mandatory requirement to put adequate measures in place. Experience has shown that good emergency arrangements require full co-operation, communication and regular practice to ensure they are effective, and that staff know what to do in the event of an emergency. 21. **What Good Looks Like.** For a site to be fully compliant with this regulation, it **must** have comprehensive Emergency Response Plans which are appropriate to the nature of the site, address all reasonably foreseeable scenarios, are devised with the involvement and cooperation of all stakeholders, and are tried and tested through having regular exercises. While the format of the Emergency Response Plans is not mandatory, the example described at above is fully compliant with FGSR requirements.
Further Guidance	JSP 317 – Joint Service Safety Policy for the storage and handling of Fuels, Lubricants and Associated products. (Internal MOD access only) JSP 319 – Joint Service Publication for the Safe Storage and Handling of Gases. JSP 418 – Management of Environmental Protection in Defence. Defence Fire Safety Regulations (DFSR) and guidance. The Control of Major Accident Hazards Regulations 2015.

303 - The Dangerous Substances and Explosive Atmospheres Regulations 2002

Formerly FGSR regulation 5

Regulation	Accountable Persons **shall** make sure that a risk assessment in line with DSEAR is completed for each F&GS facility.
Provenance	The Management of Health and Safety at Work Regulations 1999 Dangerous Substances and Explosive Atmospheres Regulations 2002
Acceptable Means of Compliance	1. DSEAR 02 aims to protect the safety of workers and others that may be at risk from dangerous substances that can cause fire or explosion. The MOD **must** meet these statutory requirements by undertaking suitable and sufficient DSEAR risk assessments. The results of these assessments **must** be recorded, communicated and acted upon as necessary. 2. Fuel, in either gas or liquid form, is a volatile flammable substance. Many non-fuel gases are flammable, explosive or aid combustion. Therefore, all processes involving Fuel, Lubricants, Oxygen and flammable gases are potentially hazardous activities. The definition of processes / activities in this case includes; normal operations, storage, handling, distribution, and maintenance of systems / plant as well as abnormal conditions (such as commissioning / decommissioning, change of product, extremes of weather etc.). 3. The DSEAR Risk Assessment process is a specialist task, and requires a team of at least two competent people, who (between them) have sufficient practical knowledge of Health and Safety, application of DSEAR, knowledge of the processes being assessed and sufficient authority to initiate actions. The procedures for identifying DSEAR hazards and subsequent implementation of risk assessments are detailed in JSP 375 Vol.1 Chap 9. 4. For Fuel and Gas installations the DSEAR assessment process is as follows: a. any process or activity with the potential to create an explosive atmosphere is subject to DSEAR and **must** undertake a Stage 1 DSEAR risk assessment. The Stage 1 assessment ascertains if a full DSEAR assessment is required; b. if the Stage 1 DSEAR risk assessment identifies a possibility of dangerous substances or processes that may result in an explosive atmosphere, then a Stage 2 DSEAR risk assessment is required. The Stage 2 assessment assesses the fire and explosion risks that may result and will determine the risk reduction measures taken; c. risks and risk reduction measures **should** be described within an Explosion Protection Document. This document typically includes: (1) technical or organisational measures so as to reduce or prevent the risk of explosions (as set out in Schedule 2) and measures used to mitigate the effects of an explosion; (2) the operation of early warning devices;

(3) operational procedures, maintenance, operation of permits to work, and co-ordination between employers;

(4) area classification reports and zonal drawings. (Drawings should be accurate to the site in question, show plan and elevation views and include anything relevant to or encroaching upon the zone);

(5) means of escape in the event of an explosion;

(6) restrictions on the type of protection method employed;

(7) calculations (ventilation rates, intrinsically safe circuits etc);

(8) material safety data sheets;

(9) equipment design data (Gas Group, Temperature Class, Zone suitability);

(10) equipment certificates (EX rating);

(11) a complete register of all EX equipment in hazardous zones.

5. The above list is not exhaustive, but risk reduction measures **should** be proportionate to the level of risk and the scope of the document **should** reflect this.

6. The Explosion Protection Document provides the evidence necessary to show that a facility is DSEAR compliant and is to be made available during FGSR inspections.

7. In addition to the above, gas installations have the following considerations:

a. **Gas Cylinder Storage Compounds**. As a minimum requirement, gas cylinder storage compounds shall have a Stage 1 DSEAR risk assessment completed in accordance with JSP 375. If the Stage 1 risk assessment identifies a dangerous process or explosive atmosphere, then the Stage 2 risk assessment **shall** be carried out;

b. **Bulk LPG**. Bulk LPG facilities including delivery areas fall within the scope of DSEAR 02 therefore a Stage 2 risk assessment **shall** be carried out;

c. **Liquid Oxygen**. Liquid oxygen is a dangerous substance that can contribute significantly to ignition and combustion where an explosive atmosphere is present. While liquid oxygen does not fall into the scope of the definition of explosive atmosphere within DSEAR 02, it is subject to codes of practice regarding ingress protection that contribute to a safe environment that compliments DSEAR. The Site Safety Case or Site risk assessment **should** consider the presence of liquid oxygen and the safety management system **must** recognise the interaction between these hazardous regimes.

8. The Stage 1 risk assessment **should** be completed using MOD Form 5014 (Internal MOD access only). If the Stage 1 risk assessment indicates an explosive atmosphere is likely, then a Stage 2 risk assessment is to be completed.

	9. DSEAR risk assessment **must** be reviewed on an annual basis and if there is a change to infrastructure / product / process. Once completed, all documentation **must** be held and displayed on site. 10. In summary, DSEAR is a legal requirement to minimise the risk of explosion from the containment of explosive or dangerous substances. Due to the specialist nature of DSEAR assessment, the process requires specifically competent people to undertake the DSEAR assessment, but it is necessary for all staff and those who could be affected by the assessment to be aware of and abide by DSEAR safety requirements. 11. **What Good Looks Like**. For a site to be fully compliant with this regulation, it **must** have undertaken DSEAR assessments of all its processes that involve Hazardous Substances and / or Explosive Atmospheres. Any obligatory actions arising from the findings of the assessments **must** be implemented. Documentation is an important aspect of DSEAR and following the assessment, all documentation (assessments, drawings, asset registers etc) **must** be made readily available and consulted whenever operations, maintenance, new works or emergency arrangements may encroach upon DSEAR designated Hazardous Areas. The process for undertaking DSEAR assessment on the MOD estate is fully described in JSP 815 Volume 2 – Element 12 and following this procedure will ensure compliance. However, if a particular site has employed a different method, and provided the method has fulfilled the legal requirements of DSEAR, FGSR will consider alternative arrangements on their own merits.
Further Guidance	JSP 815 – Defence Safety Management System, Volume 2, Element 12: Assurance

304 - Bulk Fuel and Gases Infrastructure

Formerly FGSR regulation 8

Regulation	Accountable Persons **shall** make sure that their F&GS facility infrastructure is sited, designed, constructed, maintained, operated, decommissioned (taken out of service) and disposed of in a way that is safe, environmentally sound and fit for purpose.
Provenance	The Construction (Design and Management) Regulations 2015 (CDM 2015) provides regulations for managing the health, safety and welfare of construction projects and applies to all building and construction work and includes new build, demolition, refurbishment, extensions, conversions, repair and maintenance. Section 2 of the Health and Safety at Work Act requires employers to provide plant and equipment that is safe for employees to use. The Environmental Permitting (England and Wales) Regulations 2016: Regulations 38(1), 12(1) and Schedule 22 state that it is an offence to cause or knowingly permit a water discharge activity and / or groundwater activity unless an environmental permit or exemption is complied with.
Acceptable Means of Compliance	1. To comply with the above, Defence fuel and industrial gas facilities **shall** be designed to minimise the risks from fuels and gases to any person and the environment, likely to be at, near, or affected by the products contained within applicable infrastructure including (but not limited to) storage tanks / vessels, delivery / dispense stands, access roadways, drainage systems etc. 2. Defence fuel and industrial gas facilities **shall** encompass the philosophy of a through life concept, whereby all aspects of the infrastructure from initial concept, design, in-service life, site closure and decommissioning are considered. **Siting and Siting Boards** 3. Designing or redeveloping a fuel / gas installation is a complex process which carries significant risks in terms of safety, environment, cost and efficiency. Safety has to be considered not only for the construction phase but during all phases of the life of the installation. Likewise, the environment is not only to be considered during design but with all aspects of use, including disposal at end of life. Mistakes at the design stage can be costly, difficult to rectify and can affect the efficiency of the site throughout its life. To minimise the risk of error at the design stage, a permanent or semi-permanent fuel installation cannot be brought into use until the installation has been sited to the agreement of all interested parties, certified as fit for purpose, commissioned and formally taken over for use and maintenance. 4. To this end, such installations will be subject to a Siting Board, which will oversee the design, building, commissioning and introduction into service of the facility. The Siting Board process, including typical Siting Board members, is detailed in JSP 317 Part 1 Chapter 5.

5. Although available for advice and guidance, FGSR is not normally a required member of a Siting Board. However, FGSR does reserve the right to be involved if considered appropriate and needs to be informed when installations are undergoing significant changes such as new build, refurbishment or decommissioning.

6. The physical environment, surrounding activities and adjacent properties **shall** be considered as part of the planning process and suitable risk assessments **shall** be conducted to determine appropriate safe separation distances for bulk fuels, bulk gases, and gas cylinder storage sites.

Design / Construction

7. To ensure mechanical integrity and environmental compliance, Defence fuel and industrial gas facilities **shall** be designed and constructed in accordance with a Defence, British, European, National, or International standard.

8. The materials used in the construction of Defence fuel and industrial gas facilities **should** be compatible with the chemical and physical properties of the liquid / gas to ensure that no interaction occurs which might cause failure of the infrastructure.

Fitness for Purpose

9. Defence fuel and industrial gas facilities **shall** be built and maintained to appropriate standards and be able to operate under all foreseeable environmental conditions (for example, day / night, climate, temperature, local weather conditions).

10. Bulk fuels facilities that have been built and maintained to appropriate standards can be assured as being fit for purpose by holding an in-date fit for purpose certificate issued by the Defence Infrastructure Organisation (DIO) as described in Practitioner Guide (PG) 06 / 12 (superseded by DIO Technical Standard PET03) – Professional Inspection of fuel infrastructure and flammable dangerous goods stores. Failure to hold an in-date certificate will render the facility as not fit for purpose.

11. Bulk gas storage facilities and associated systems operating at pressures greater than 0.5 Bar are subject to the Pressure Systems Safety Regulations 2000. An important requirement of these regulations is that the user of the system **must** have a written scheme for periodic examination and a suitable schedule for maintenance **shall** be in place. Bulk gas storage facilities and associated systems are also supported by the DIO managed Gas Safety Management Plan (GSMP). The GSMP is a site-specific document which records the details of gas infrastructure present at each relevant location as well as the specific arrangements required to be implemented in order to ensure the safe operation and management of such gas infrastructure.

12. Defence fuel and industrial gas facilities **shall** be designed, maintained, and operated as to provide continued safe compliant operation and **shall** prevent direct loss of product to the ground, surface watercourse, or to the atmosphere.

	Demarcation 13. There **shall** be clear and concise lines of demarcation that are understood and agreed by all parties with regard to the ownership, operation, and maintenance of Defence fuel and industrial gas facilities that are owned, managed and maintained on the MOD estate. Examples being (but not limited to) bulk LPG and cryogenic vessels owned by third party contractors, Aquatrine assets, encroachments, JOFS etc. **Decommissioned Sites** 14. All sites that are either temporary or permanently decommissioned **shall** be certified, demonstrating that the site has been closed safely, and in accordance with all appropriate health and safety and environmental legislation. 15. **What Good Looks Like.** This regulation covers all aspects of infrastructure throughout the life of an installation. FGSR uses the Fuel and Gas Safety Assurance Assessment (FGSAA) to obtain assurance that all the above requirements are in place and that the facility is operating safely. Compliance with this Regulation can be achieved through compliance with the infrastructure-based questions of the FGSAA.
Further Guidance	1. The Association for Petroleum and Explosives Administration (APEA). The design, construction, modification, maintenance, and decommissioning of filling stations (APEA Blue Book) provides technical information about storage and dispensing of petroleum products used as fuels for motor vehicles (including petrol, diesel and Autogas (also known as LPG)). It provides information on civil, mechanical, hydraulic and electrical installation issues for the planning, design, construction, commissioning, modification, maintenance and decommissioning of filling stations, together with information aimed to minimise the risks from fire and explosion to health and to the environment. 2. Energy Institute (EI) Model Code of Practice Part 15 Design, Construction, Operation, and Maintenance of Aviation Fueling Facilities provides technical and general information about storage and dispensing of aviation fuels. 3. Construction Industry Research and Information Association publication C535-Above-ground proprietary prefabricated oil storage tanks systems provides guidance on the design construction and use of manufactured above ground storage tanks of steel or plastic construction. The publication also assesses the level of environmental protection offered by these types of systems against common causes of pollution and the preventative measures that be taken to avoid them. 4. UK Liquid Petroleum Gas Code of Practice 1 (UKLPG COP 1), Part 1 is the LPG distributors Industry Code of Practice for bulk design, installations and operations of LPG Storage Vessels located above ground. COP 1 Part 4 covers underground and semi-buried bulk LPG vessels. 5. The British Compressed Gas Association (BCGA) COP 36 Cryogenic Liquid Storage at Users' Premises provides detailed guidance for the construction and layout for bulk cryogenic facilities.

	6. BCGA COP 44 and UKLPGA COP 7 provide technical guidance for the design, construction and siting of industrial and LPG gas cylinders respectively. 7. DIO Technical Standards. 8. The Control of Pollution (Oil Storage) (England) Regulations 2001. 9. Control of Pollution (Oil Storage) Regulations (Northern Ireland) 2011. 10. The Water Environment (Controlled Activities) (Scotland) Regulations 2011. 11. The Fluorinated Greenhouse Gases Regulations 2015. 12. Army Equipment Support Publication (AESP) for JOFS - siting boards, design authority – 516 Specialist Team Royal Engineers.

305 - Fuel and Gas Maintenance Inspection and Certification

(Formerly FGSR regulation 9)

Regulation	Accountable Persons **shall** make sure that their F&GS facility infrastructure is properly maintained, inspected and, where necessary, either: • certified to guarantee that they are fit for continued use, or • decommissioned (taken out of service).
Provenance	Health & Safety at Work etc. Act 1974. Provision and Use of Work Equipment Regulations 1998. The Petroleum (Consolidation) Regulations 2014.
Acceptable Means of Compliance	1. Fuel and Gas installations have a range of maintenance regimes and inspections designed to ensure the safe operation of the facility. While they may overlap in some aspects, they are developed to complement each other and ensure that no gaps in Safety Management Systems are allowed to go unchecked. Maintenance regimes have been developed through a process of risk assessment, experience and industry best practice to provide efficient and cost-effective means of ensuring safe and continued operations. Planned Preventative Maintenance is an important safety management tool, where safety critical items are maintained at regular intervals to ensure that they do not fail. Safety Inspections are required to ensure that safety processes, including maintenance, are being carried out and that they are effective. The paragraphs below detail the various inspections that are undertaken on fuel and gas facilities, what they entail and what they aim to achieve. **FGSR Inspections** 2. The FGSR inspection is conducted by completing a FGSAA, a checklist that verifies that a facility complies with national legislation as well as Defence and civilian industry codes of practice. If a licensable fuel facility passes the FGSR inspection a Certificate of Continued Operation (CCO) will be issued. The FGSR Certificate is equivalent to the certification regime imposed on civilian petrol storage facilities by the The Petroleum (Consolidation) Regulations (2014). 3. In order to prevent wasted resources, a risk-based certification regime was implemented giving FGSR inspector's scope to extend the length of licences from annual to three and five yearly depending on their scoring against certain criteria. On interim years, suitably qualified and experienced persons within Defence organisations are authorised to complete self-assessments utilising the FGSAA through the online FGSR database. **DIO Inspections** 4. DIO Technical Standards provide procedural guidance on the maintenance, inspection and testing of fixed mechanical and electrical equipment installed at petroleum installations on MOD estate. It is not a technical guide on the practical aspects of maintenance, inspection and testing of such installations, which is left to the professional skills and judgement of competent person(s) undertaking the work.

5. These inspections provide assurance that installation mechanical and electrical maintenance has been undertaken in accordance with the appropriate standard. They are carried out by a professionally qualified engineer who conducts a visual inspection of the facility (professional inspection of fuel infrastructure and flammable dangerous goods stores) and examines all relevant certificates and documentation. The certificate produced by the professionally qualified engineer in accordance with DIO Technical Standards concludes that the facility will be either:

a. fit for continued use – unrestricted (12 months);

b. unfit for continued use;

c. fit for continued use with recommendations.

Electrical Test Certificate

6. The Electricity at Work Regulations 1989 impose duties on Duty Holders such that: all systems **must** be maintained so as to prevent danger (Regulation 4). Electrical equipment which may be exposed to any flammable or explosive substances **shall** be so constructed and protected that it prevents danger (Regulation 6). DSEAR also places statutory requirements for inspection and testing of electrical equipment in hazardous areas. Inspecting and testing electrical components in a fuel installation provides verification and assurance that the condition of the electrical equipment is appropriate for operation in a hazardous area. This is applicable to all electrical systems within MTFIs; BFIs; bulk waste fuel compounds; Uninstalled Engine Test Facilities; OFDs; and bulk LPG compounds that have an electrical supply. In response to this, an annual electrical inspection **must** be completed by a competent electrician and be correctly recorded on an appropriate certificate.

Non-Destructive Testing / Tank Tightness Tests

7. Non-destructive testing (NDT) of fuel systems has been introduced as a response to the increased risk of environmental damage posed by ageing single-skin steel underground fuel infrastructure. As a result, a critical part of the inspection regime **must** include regular testing of underground infrastructure deemed to be at enhanced risk. NDT should be carried out when a tank reaches 20-years old. NDT **should** then be repeated at ages 25, 30, 32, 34 and then annually thereafter. Evidence of such tests **shall** be correctly recorded on an appropriate certificate.

Oil Water Interceptor (OWI) Maintenance

8. OWIs shall be regularly inspected and routinely maintained according to manufacturer's recommendations. The frequency **should** be determined by site conditions, but as a minimum, inspection is recommended every 6-months, with major servicing every 5-years. Records of OWI maintenance, classification, type, and capacity shall be held by the MMO and be available to the site operator to provide relevant information to support Environmental / Pollution / Emergency Risk Assessments.

Dispenser Pumps

9. Fuel dispenser (metering) pumps are designed / manufactured and placed on the market certified as fit for use in accordance with The Measuring Liquid (Liquid Fuels and Lubricants) Regulations 2006 and shall dispense fuel as to comply with the Weights and Measures Act 1985.

10. Fuel dispensers shall be calibrated by competent persons in accordance with the periodicities mandated by the respective DIO maintenance publications.

Bulk LPG / Cryogenic Facilities

11. Contractor owned bulk gas vessels are subject to the Pressure Systems Safety Regulations 2000 and are maintained against a Written Scheme of Examination. This is demonstrated by the appropriate data plate on the vessel being annotated by the current inspection date. The Vessel Owner maintains all records for vessel maintenance.

12. MOD (RAF) owned cryogenic vessels are maintained in accordance with Air Publication maintenance manuals. Evidence that RAF cryogenic vessels are serviceable is usually supported by an appropriately annotated MF 731 label (MOD Form 731).

13. Bulk LPG vessel supporting infrastructure is maintained by MMO. All maintenance records and applicable certification is managed in accordance with DIO GSMP Part C, and DIO Technical Standards.

14. Infrastructure supporting bulk cryogenic facilities is maintained by MMO. All maintenance records and applicable certification is managed in accordance with DIO policy. (for example, Local Exhaust Ventilation, Multiple Gas Indicator certificates).

Gas Cylinders

15. Gas cylinders (Transportable pressure vessels) are generally Contractor owned and are subject to a 10-yearly Periodic Inspection and Test regime as mandated by the Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations. This is demonstrated by cylinder test rings and data being stamped on the cylinder vessel shoulder.

16. **What Good Looks Like.** For a site to be compliant with this regulation, it must have a comprehensive maintenance regime which is in accordance with the appropriate standards for the installation, undertaken by competent persons and fully up to date according to predetermined schedules. All mandatory inspections **must** be undertaken, and any actions arising from the findings of the inspections **shall** be acted upon within the allotted timeframe. If there are any significant issues which prevent the awarding of a valid certificate then the facility must be closed and made safe until the issue can be rectified or mitigated to the satisfaction of the Certifying body. All documents (certificates, maintenance schedules etc.) **shall** be made available to the FGSR inspector for examination.

Further Guidance	**Bulk Fuels Facilities** 1. Further information on the Inspection, Maintenance and testing of equipment installed at Petroleum Installations on MOD property can be found in DIO Technical Standards. 2. APEA Design, construction, modification, maintenance, and decommissioning of filling stations (APEA Blue Book) provides guidance on the maintenance of petrol filling stations including all associated ancillary equipment. 3. BS-EN 858 Part 2, APEA Blue Book and EI Guidelines for soil, groundwater, and surface water protection and vapour emission control at petrol filling stations provide guidance on OWI classification and maintenance requirements. 4. DIO Total Facilities Management Briefing Note 012 Good Practice Guide No 1 – Fuels Infrastructure provides guidance on how the MMO conducts maintenance on Bulk Fuels facilities and the requirements of the MMO needs to carry out prior to and during the Professional Inspectors Audit. DIO TFM Briefing Note 012 Good Practice Guide No 1 also provides guidance that the Professional Inspectors shall conduct a post-inspection debrief to all site stakeholders prior to departing the site. **Bulk LPG / Cryogenic Facilities** 5. DIO Gas Safety Management Plan Part C and DIO Technical Standards provide guidance on management and maintenance regimes for bulk LPG facilities on the MOD estate. 6. UKLPGA COP 1 Part 1, Part 3 provides guidance on design and maintenance requirements of bulk LPG vessels and enclosures. 7. BCGA COP 36 provides guidance on design and construction of bulk cryogenic enclosures. 8. British Oxygen Company (BOC) Customer Engineering Services PN 1959 provides relevant certification for BOC owned cryogenic vessels operated in RAF cryogenic compounds. 9. AP 119 series provides maintenance regimes for MOD owned bulk Cryogenic vessels. **Gas Cylinders** 10. The HSE website for approved cylinder design provides guidance on all types of cylinder design, as well as maintenance and inspection regimes. All cylinders are designed, manufactured, and tested in accordance with European standards and specifications. These are referenced in Chapter 6.2.2 of the 2003 text of Regulations concerning the International Carriage of Dangerous Goods by Rail (RID) / The Agreement Concerning the International Carriage of Goods by Road (ADR). Standards recognised by the competent authorities of Member States as meeting the basic design and construction of RID / ADR may also be used under the Carriage Regulations for the transport and use of transportable pressure equipment throughout the European Union. Standards for UN certified cylinders are those listed in Chapter 6.2.2.1.2, 6.2.2.1.3 and 6.2.2.3 of the latest edition of the UN Model Regulations.

	Joint Operational Fuel Systems 11. PG 05 / 12 is not applicable for installations designed, executed and maintained by Royal Engineers in an operational theatre designated as a military works area (Joint Warfare Publication 4-05). 12. PG06 / 12 includes a visual inspection report template for temporary fuel facilities. FGSR recommend that the use of tactical deployable fuel infrastructure (i.e. JOFS) **should** be included in the scheduled professional inspection if planned to be installed for more than 6-months. If a facility is planned for less than 6-months but becomes an enduring requirement, then FGSR recommend that the facility becomes incorporated into the scheduled professional inspection. It is recognised that adding facilities to the PG06 / 12 may incur additional cost which **must** be addressed. Alternatively, military engineers can be tasked to conduct inspections of deployable equipment, normally on a 6-month cycle based on the equipment technical publications. The inspection and maintenance regime **should** be addressed in the engineer design report for the facility. Guidance for suitable written instructions for the workplace are contained in the Provision and Use of Work Equipment Regulations 1998. 13. JSP 317 Part 2 provides guidance on operating procedures for fuels activities. 14. JSP 319 Part 2 provides guidance on operating procedures for industrial gas activities.

306 - Fuel and Gas Operations

Formerly FGSR regulation 10

Regulation	Accountable Persons **must** make sure that they have appropriate, current and concise procedures that detail normal, abnormal and emergency activities for their F&GS facilities.
Provenance	Health & Safety at Work etc. Act 1974. Provision and Use of Work Equipment Regulations 1998.
Acceptable Means of Compliance	1. Standard Operating Procedures are required to ensure that staff are fully aware of the following: a. the hazards and risks involved in the particular operation; b. roles and responsibilities; c. training requirements and competence; d. maintenance schedules; e. operating instructions; f. how, what and when to do actions, in the event of an emergency; g. the reporting chain (including reporting defects); h. other local arrangements (geography, weather etc.). 2. Procedures **must** be devised and written by persons competent in the given role. They **must** be written and communicated to staff in ways that are clear and unambiguous: this may require additional training of staff and / or mechanisms to ensure understanding (such as tests or Certificates of Competency). 3. Procedures, as with all elements of safety management, **must** be reviewed on a regular basis or when there has been a significant change to the system or operation in question. Furthermore, rules **must** be in place to ensure that only the most current version is available for use. 4. FGSR inspect Fuel and Gas facilities to ensure that they are operated in a safe and controlled manner. Procedures are examined to ensure that they are: a. present. (That, where a need is identified, a procedure has been produced); b. fit for purpose. (That the procedure accurately describes and controls the requirement); c. are being enacted. (That the instructions are being followed).

5. During a Fuel and Gas Safety Assurance Audit (FGSAA) an FGSR Inspector will require to see documentary evidence of the following:

a. Safety Management Systems (Duty Holder's Policy, Organisation and Arrangements, Letters of Delegation etc.);

b. Environmental Management (Systems Environmental Management Systems at Army Sites (EMSAS), Environmental Risk Assessments etc.);

c. risk assessments (Site Hazard Survey, Activity Risk Assessments, COSHH, DSEAR etc.);

d. training records (Certificates of Competence etc.);

e. maintenance records (Dispensing Pump calibration, OWI maintenance etc.);

f. inspection records (DIO Periodic Inspection (PG 06 / 12), Electrical Inspections);

g. emergency plans (USRP, Gas Emergency Escape Plan (GEEP), Fire Plan);

h. site specific operating instructions (Standard Operating Procedures (SOPs), GSMP Section C).

6. Item h. above describes a range of procedures which are unique to the installation in question. These may initially be provided by designers / manufacturers, or devised by previous incumbents, but the key factor is that they are owned by the current installation operator, who is ultimately responsible for their upkeep, currency and promulgation. Examples include (list not exhaustive):

a. procedures for bulk fuels / gas delivery / gas cylinder delivery / issue (access, Materiel Handling Equipment, safety etc.);

b. gas cylinder / packed stocks storage / segregation etc;

c. procedures for site husbandry tasks (for example, key location);

d. procedures for BFCV / BFCV transfers (for example, location, safety);

e. procedures for bulk liquid oxygen (Lox) blowdown;

f. procedures for fuels / gas quality checks, emergency checks (for example, alarm checks, emergency showers, local exhaust ventilation (LEV) etc.)

7. Procedures do not always have to be documents. Signage, traffic control measures and pedestrian restrictions are all examples of non-documentary procedures. Furthermore, this physical evidence provides proof that the procedures are being enforced. In addition to the documentary evidence listed above, FGSR inspectors will be looking for evidence of the procedures in practice (for example, non-documentary evidence):

	a. traffic / pedestrian control; b. signage (“No Smoking”, “UN product numbers”, and “What to do in the Event of Fire”, etc.); c. security (locking of hatches, junction boxes etc.); d. operator’s duties (direct questions on how operators perform their allotted tasks); e. condition (evidence that the facility is being properly maintained). 8. A combination of documentary and physical evidence will allow FGSR inspectors to get a true picture of the organisational Safety Culture and gain assurance that Safety Management Systems are in place. 9. In summary, the need for clear procedures is an essential part of safety management. Documentary evidence is the common way of demonstrating compliance, but other evidence such as the use of practical measures is also necessary to demonstrate that procedures are in place, fit for purpose and are actively enforced. 10. **What Good Looks Like**: For a site to be compliant with this regulation it needs to have a comprehensive set of procedures which accurately address normal, abnormal and emergency conditions. Those procedures need to be made readily available to all personnel who need them. Furthermore, the sites **must** be able to demonstrate that it abides by these procedures and ensures that all staff are fully aware of the roles they have to play in them.
Further Guidance	JSP 317 – Safety Policy for the storage and handling of Fuels, Lubricants and Associated products. JSP 319 – Safe Storage and Handling of Gases.

Defence
Safety Authority

DSA DLSR Land Systems Safety Regulator

Land Systems Safety and Environmental Regulations

Contents

400 Series - Land Systems Safety and Environmental Regulations

1. This series describes the requirements for the Land System Lifecycle.

2. The Land System Lifecycle is the Concept, Assessment, Demonstration, Manufacture, In-Service, Disposal / Termination (CADMID/T) lifecycle for Land Systems. This can also include pre-concept and all activity outside of the CADMID/T cycle.

3. A Land System can be defined as any system designed to be operated and maintained in the Land Domain, where the output and the activity does not primarily impact on air or sea worthiness:

a) this includes but is not limited to:

(1) vehicles including: integrated sub-systems, integrated weapons and defensive aids, communication systems, information systems, support equipment, trailers and towed equipment;

(2) people as an element of the Land System function;

(3) rail systems (including rail rolling stock, power units and running gear) owned or operated by or on behalf of MOD.

b) this excludes but is not limited to:

(1) permanent infrastructure owned and maintained by Defence Infrastructure Organisation (DIO);

(2) Ordnance, Munitions and Explosives (OME).

4. The Land Systems Safety Regulator (LSSR) provides independent regulation of Land Systems through the complete Land System Lifecyle. LSSR regulate, assure and enforce in-line with DLSR, DSA standards (for regulation, assurance and enforcement).

5. DEDs from UK statutory requirements relating to Land equipment require Defence regulation. The use of Land equipment, including operational military vehicles is considered as a high-risk activity requiring Defence regulation.

6. All people engaged in the Land System Lifecycle should be aware of the requirements of DLSR 100, 400, 500 and 600 Series regulations.

7. DLSR 400 Series regulations should be read in conjunction with the 100 and 600 Series regulations.

8. Compliance with the 400 Series regulations is mandatory and failing to comply will lead to enforcement action being undertaken.

401 - Safety and Environmental Cases

Formerly LSSR regulation 4

Regulation	1. The Accountable Person **shall** make sure that a valid and proportionate Safety and Environmental Case (SEC) is established, used, and maintained for the life of that Land System or capability. 2. The Accountable Person **shall** make sure that their Land System or capability is used within the scope of the SEC.
Provenance	The Nimrod Review, an independent review into the broader issues surrounding the loss of the RAF Nimrod MR2 Aircraft XV230 in Afghanistan in 2006, Charles Haddon-Cave QC, 28 October 2009.
Acceptable Means of Compliance	1. Each organisation **should** formally appoint an Accountable Person for the duration of a Land System or capability's life. 2. Each organisation **should** put in place a suitable and sufficient process to transfer the Land System or capability to a new Accountable Person if required. 3. Each organisation **should** determine the qualifications and experience required to be held by an Accountable Person for each Land System or capability. 4. Each organisation **should** have a method of identifying and recording the Accountable Person in line with the qualifications and experience required. 5. Each Accountable Person **should** have a method of recording assurance of the SEC.
Further Guidance	JSP 375: Management of Health and Safety in Defence. JSP 376: Defence Acquisition Safety Policy. JSP 815: Defence Safety Management System. JSP 816: Defence Environmental Management System. JSP 892: Risk Management. (Internal MOD access only) JSP 912: Human Factors Integration for Defence Systems. JSP 935: Software Acquisition Management for Defence Equipment. (Internal MOD access only) Safety Case Manual (not currently published)

402 - Safety and Environmental Case Strategy

Regulation	The Accountable Person for a Land System or capability **shall** make sure that there is a strategy in place for the development and ongoing management of SEC.
Provenance	The Nimrod Review, an independent review into the broader issues surrounding the loss of the RAF Nimrod MR2 Aircraft XV230 in Afghanistan in 2006, Charles Haddon-Cave QC, 28 October 2009.
Acceptable Means of Compliance	1. The strategy for the creation, development, management, and maintenance of the SEC for a Land System or capability **should** be developed by the Accountable Person prior to the procurement of or at the start of a project to procure a Land System or capability. 2. The SEC strategy **should:** a. set a clear scope which is realistic, considers the loss of the capability, and adequately captures all elements that interact with people and the environment; b. be proportionate to the perceived level of risk and environmental impacts; c. define roles and responsibilities for the creation, development, management, and maintenance of the SEC; d. identify how stakeholders will be engaged throughout the process; e. set clear milestones and goals; f. consider interactions with other Land Systems or capabilities. 3. The SEC Strategy **should** cover the following and the transition requirements between each: a. safe before use; b. safe while in service; c. safe to Sell or Disposal of. 4. The SEC Strategy **should** as a minimum be reviewed regularly, proportionate to the perceived level of risk, updated as necessary with clear configuration control and recorded within the Land Systems Safety and Environmental Management Plan (SEMP).
Further Guidance	JSP 375: Management of Health and Safety in Defence. JSP 376: Defence Acquisition Safety Policy. JSP 815: Defence Safety Management System. JSP 816: Defence Environmental Management System.

JSP 892: Risk Management. (Internal MOD access only)

JSP 912: Human Factors Integration for Defence Systems.

JSP 935 Software Acquisition Management for Defence Equipment. (Internal MOD access only)

Safety Case Manual (not currently published)

The Safety and Environmental Case

1. A SEC is defined as 'a structured argument, supported by a body of evidence that provides a compelling, comprehensible and valid case that a system is safe for a given application in a given environment. A safety case can also be co mbined with environmental protection considerations to form a Safety and Environ mental Case'.

2. A SEC **should** have the following characteristics:

   a. owned by a single Accountable Person through life;

   b. sets a clear and realistic scope of use with defined boundaries and interfaces that adequately captures all elements that interact with people and the environment;

   c. provides a compelling safety and environmental argument that is supported and linked to suitable and sufficient evidence;

   d. proportionate to the complexity of the system and the level of risk presented;

   e. summarised within the Land System Lifecycle to confirm:

      (1) safe before use;

      (2) safe while in service;

      (3) safe to Sell or Disposal of.

   f. regularly monitored, reviewed, and updated.

3. A SEC **should** provide suitable and sufficient evidence that, as a minimum:

   a. safety and environmental requirements have been identified and met;

   b. hazards have been adequately identified and analysed and the associated risk has been assessed in an appropriate manner;

   c. all hazards and potential accidents have had controls applied, to make sure all residual risk has been reduced to a level that is ALARP and Tolerable and the BPEO;

d. the system complies with all relevant Defence regulations and MOD Policy;

e. a Legislative Compliance Assessment (LCA) is completed to identify all aspects of Land System design, manufacture, operation and disposal. Where disapplication's, exemptions or derogations apply Land Systems **should** produce outcomes which are, so far as reasonably practicable, at least as good as those required by UK legislation.

f. all measures have been taken to make sure that acceptable levels of safety and environmental residual risks can be maintained through life.

g. Certification, if required, should be conducted in line with the 600 Series regulations.

4. Where a Land System includes sub-systems that have separate Safety and Environmental Cases, these **should** be integrated or reconciled with the lead / prime systems SEC.

5. The Accountable Person for the lead / prime system **should** be satisfied that the Land System remains safe and provides the BPEO within the defined application and operational environment. This **should** be documented within the SEC.

The Safety and Environmental Case Report

6. As a SEC develops it **should** be supported by a series of Safety and Environmental Case Reports at key points of the Land Systems Lifecycle to confirm:

a. safe before use;

b. safe while in-service;

c. safe to Sell or Disposal of.

7. Defence typically uses the CADMID/T project lifecycle which is detailed below:

a. Safe before use (Concept, assessment, demonstration and manufacture stages). Has the relevant activity taken place to make sure equipment safety and environmental risk has been identifies effectively and made ALARP and Tolerable / BPEO before entering service?

b. Safe while in-service (In-service stage). Is safety and environmental activity being conducted to make sure equipment risk is maintained as ALARP and Tolerable / BPEO while in-service?

c. Safe to sell (disposal stage). Has the relevant activity taken place to make sure the risks to safety and the environment are identified and ALARP and Tolerable / BPEO when being disposed?

8. This **should** also be applied to other methodologies such as PRINCE and AGILE for project deliveries, local Land System procurements and also to early concept Trials, Experimentation and Innovation activity.

9. The Safety and Environmental Case Reports are owned and signed by the Accountable Person and **should** document progress against the safety and environmental strategy and summarise the Safety and BPEO arguments made.

10. The Safety and Environmental Case Report **should** be made available to all stakeholders.

The Safety and Environmental Case Strategy

11. The strategy for the creation, development and management of the SEC for a Land System **should** be developed at the start of the project by the Accountable Person.

12. The SEC Strategy **should:**

a. set a clear scope which is realistic, considers the loss of the capability, and adequately captures all elements that interact with people and the environment;

b. be proportionate to the perceived level of risk and environmental impacts;

c. define roles and responsibilities for the creation, development, management, and maintenance of the SEC;

d. identify how stakeholders will be engaged throughout the process;

e. set clear milestones and goals;

f. consider interactions with other Land Systems or capabilities.

13. The SEC Strategy **should** cover the following and the transition requirements between each:

a. safe before use;

b. safe while in service;

c. safe to Sell or Dispose of.

14. The SEC strategy **should** identify how the Defence Lines of Development (DLOD) will be considered throughout the Land System Lifecycle and set clear goals and milestones.

15. The DLOD are defined as:

a. training;

b. equipment;

c. personnel;

d. information;

e. concepts and doctrine;

f. organisation;

g. infrastructure;

h. logistics;

i. interoperability.

16. As part of the SEC Strategy, the Accountable Person **should** as a minimum agree and document with the relevant stakeholders:

a. roles and responsibilities;

b. the tools techniques and processes to be used;

c. the level of evidence required to support the SEC;

d. the schedule for review.

Monitoring and Review of the Safety and Environmental Case

17. The SEC **should** be reviewed, as a minimum, on an annual basis and when:

a. any of the functional requirements, constraints or assumptions change through life;

b. there is a change to an interface with other systems;

c. incidents, accidents, or failures occur;

d. modifications to the system(s) are introduced;

e. there are changes to legislation, regulations, or policy;

f. there is a change in its application or its operating environment;

g. on disposal.

18. The extent of the review **should** be proportionate to the complexity of the Land System and the risk presented. This review **should** be documented in accordance with the safety case strategy with actions clearly described, prioritised and with owners identified.

19. As part of the review the relevant documents within the SEC **should** be updated with any new information, and the Safety and Environmental Case Report updated to reflect the changes made and the impact on the Safety Arguments provided.

20. If following review, no changes are required, this **should** also be recorded.

Industry

21. Where industry have been contracted to support the development of the Land Systems SEC, the Accountable Person **should** make sure that:

a. adequate arrangements are in place and actioned to control and manage any residual risks at the contracted interfaces;

b. the roles, responsibilities and requirements for Industry are clearly defined, agreed, and recorded.

22. The accountability of the Land System SEC cannot be transferred to Industry and remains with the Accountable Person.

Transferring a Safety and Environmental Case

23. A plan for transferring the SEC to a new Accountable Person **should** be developed as part of the strategy. The plan **should** be proportionate to the complexity of the transfer process and magnitude of risks.

24. The transfer plan **should** describe how the transfer will be executed and identify specific actions, time limits, and responsibilities for addressing any safety / environmental protection issues or any negative impact prior to the change being implemented.

25. Where a SEC is to be transferred to a new Accountable Person, the receiver who is taking over the accountability for the SEC **should** be competent to undertake the role and hold the appropriate delegated responsibility.

26. The outgoing Accountable Person **should** be satisfied that the receiver has the competence to undertake the role and facilitate a suitable and sufficient handover which as a minimum **should** include overviews of:

a. the Safety and Environmental Case Strategy including progress;

b. the Safety and Environmental Case;

c. the Safety Argument and linked evidence;

d. hazards and controls;

e. outstanding actions;

f. extant Safety notices and risk referrals.

27. Written acceptance of the SEC **should** be provided by the receiver to the donor after the transfer has taken place. At this point, the receiver will become the new Accountable Person for the Land System.

28. Once the SEC has transferred, all relevant documentation **should** be updated to reflect the changes, and the transfer **should** be communicated to all relevant personnel.

Human Factors

29. Human Factors **should** be considered during the development of the SEC.

30. In order to address the safety aspects of Human Factors, the output from ergonomic studies, Human Factors Integration (HFI) activities, output from early human factors analysis and human error rates **should** be used.

31. Further guidance on Human Factors may be found in:

a. JSP 912 Human Factors Integration for Defence Systems.

b. Defence Standard (Def Stan) 00-251 Human Factors Integration for Defence Systems. (Internal Defence Gateway access only)

c. What is Human Factors Integration Management System (HuFIMS)? - KiD - UK MOD (Internal Defence Gateway access only)

Software

32. The risks associated with the failure or unintended behaviour of Programmable Elements (PE) in Land Systems, including its integration, **should** be managed. PE is defined as a Land System which is implemented in software or programmable hardware, which includes any device that can be customised, for example, Application Specific Integrated Circuit, Programmable Logic Devices and Field Programmable Gate Array.

33. To enable safe operation of a Land System, component PEs will need to meet the required Design Integrity and fulfil the PE integrity principles (Def Stan 00-055):

a. principle 1. PE safety requirements shall be defined to address the PE contribution to system hazards;

b. principle 2. The intent of the PE safety requirements shall be maintained throughout requirements decomposition;

c. principle 3. PE safety requirements shall be satisfied;

d. principle 4. Hazardous behaviour of the PE shall be identified and mitigated – addressed by failure modes and supported by designing for safety;

e. principle 5. The confidence established in addressing the other PE safety principles shall be commensurate to the contribution of the PE contribution to system risk and will be addressed by Design Integrity requirements.

34. PE cannot be generally safe or unsafe in itself, only in the context of its role in a Land System; however, the term ‘PE safety’ has been adopted as global term addressing the properties of PE to consider its role in relation to the safety of Land Systems.

35. Lack of Design Integrity can lead to the unintended behaviour of PE. These may result in a hazard or impair mitigation of a hazard within the Land System and hence the MOD considers PE Design Integrity to be a significant safety issue.

	36. Further guidance on PE safety is provided in: a. JSP 935 - Software Acquisition Management for Defence Equipment. (Internal MOD access only); b. IEC 61508 - Functional Safety of Electrical / Electronic / Programmable Electronic Safety Related Systems; c. IEC 26262 - Road Vehicles - Functional Safety; d. Def Stan 00-055, Requirements for Safety of PE in Defence Systems Part 1: Requirements and Guidance. (Internal Defence Gateway access only).

403 - Operating Outside the Scope of the Safety and Environmental Case

Regulation	1. When an operational imperative arises to operate outside the scope of the SEC, the Accountable Person **shall** have a process to adequately assess the increased risk and authorise the continued use at the appropriate level (within or outside the organisation). 2. The Accountable Person **shall** be responsible for obtaining an Operational Dispensation if the Land System or capability is to be used outside the scope of its SEC due to an operational imperative.
Provenance	The Nimrod Review, an independent review into the broader issues surrounding the loss of the RAF Nimrod MR2 Aircraft XV230 in Afghanistan in 2006, Charles Haddon-Cave QC, 28 October 2009.
Acceptable Means of Compliance	1. Each organisation **should** make sure that there is process for Land equipment or capability operational dispensations for when there is a requirement to use equipment outside the scope of the existing SEC and that it defines as a minimum: a. how requests for Operational Dispensation are made to the Accountable Person, analysed, granted and monitored; b. the level of referral required through the chain of command (including ministerial level) for the acceptance of the risk identified and presented; c. the actions to be taken within the first 28-days following the approval of the Operational Dispensation to effectively assess the risks associated, with the aim of demonstrating to the Accountable Person that the change of use is As Low As Reasonably Practicable (ALARP) and can be captured within the scope of the existing SEC; d. the actions to be taken following the initial 28-day period if the change of use cannot be demonstrated to be ALARP and within the scope of the existing SEC, including (but not limited to) the level of referral to accept the enduring risk for that specific operation and remedial and time bounded actions to be taken in order to mitigate the risk. 2. Each organisation **should** make sure that Operational Dispensations outline as a minimum: a. the operational imperative; b. the change of use required of the system; c. the risks associated with this change and the in-theatre mitigation measures to be implemented. 3. The Accountable Person **should** make sure that all Operational Dispensations recorded are notified to DLSR and subject to regular monitoring and ongoing management by the organisation.

	4. In peacetime, invoking 'Operational Imperative' to override normal safe practices in generation or activity **should** only be considered in extremis and in the face of a significant, imminent threat to life or the environment.
Further Guidance	JSP 375: Management of Health and Safety in Defence. JSP 376: Defence Acquisition Safety Policy. JSP 815: Defence Safety Management System. JSP 816: Defence Environmental Management System. JSP 892: Risk Management. (Internal MOD access only) JSP 912: Human Factors Integration for Defence Systems. JSP 935: Software Acquisition Management for Defence Equipment. (Internal MOD access only) Safety Case Manual (not currently published) 1. A Land System **should** only be used in accordance with the extant SEC which clearly defines the scope of use, Safe Systems of Work including operating and maintenance procedures, and the boundaries and interfaces of all elements that interact with people and the environment. 2. It is accepted that due to the nature of military activity, there may be occasions where there is a requirement to operate Land Systems outside of the extant SEC. 3. These occasions **should** be limited to a specific urgent operational imperative and time bounded. It is important to note that Operational Dispensations **do not** allow Commanders or any other Accountable Person to breach legal requirements including their duty of care. 4. The aim of an Operational Dispensation process is to effectively control changes to make sure that they are considered, well planned, and carefully executed so that the operational benefits outweigh the potential risks to the safety of Service personnel. 5. If there is an urgent operational imperative to use a Land System outside of the extant SEC, then a request for an Initial Operational Dispensation **should** be made by those requiring it to the Accountable Person. 6. The request **should** outline: a. the operational imperative; b. the change of use required of the system; c. the risks associated with this change; and, d. the in-theatre mitigation measures to be implemented. 7. The period of the Initial Operational Dispensation **should** not exceed 28-days.

	8. This regulation requires the organisations put in place a process to support both the Accountable Person and those requiring it to control the safety and environmental risks associated with operating outside the extant SEC, **should** an urgent operational imperative occur. 9. This process **should** as a minimum include: a. how to raise a request; b. what to do on the receipt of the request; c. how the risk **should** be reviewed, and the key stakeholders required; d. the level of risk that can be accepted by the Accountable Person; e. route for escalation. 10. The review of the SEC **should** consider an operational assessment of the impact of the dispensation not being approved, expressed in terms of risk of death or injury balanced against the continued used of the Land System(s), taking into account in-theatre risk mitigation measures. 11. The aim of the review **should** be to assess the risks associated with the requested change of use of the Land System and identify any further mitigation measures, with the purpose of demonstrating that the change of use is tolerable / broadly acceptable and ALARP, in accordance with the defined tolerability criteria defined in the existing SEC. 12. If the risk can be appropriately mitigated and controlled within the Initial Operational Dispensation period, this **should** be documented, and the relevant articles updated within the SEC and signed off by the Accountable Person. 13. If it has not been possible to identify or implement appropriate mitigation measures for the risks identified, or the risk associated with the proposed change of use of the Land System cannot be mitigated within the Initial 28-day Operational Dispensation period, the risk **should** be referred through the chain of command to a more senior level, and if necessary, up to ministerial level for acceptance. 14. All active operational dispensations **should** be subject to regular monitoring and on-going management in accordance with the Land System's SEMS, particularly during the initial period. This monitoring **should** be proportionate to the residual risks associated with the Operational Dispensation. 15. If an Operational Dispensation has been referred and approved, it is not to be considered an enduring solution.

404 - Compliance with Legislation and Standards

Formerly LSSR regulation 9

Regulation	The Accountable Person **shall** make sure that all legal requirements for their Land System have been identified, managed and recorded.
Provenance	Policy Statement by the Secretary of State for Defence on Health, Safety and Environmental Protection in Defence. Health and Safety at Work Act 1974. Environmental Protection Act 1990 The Road Vehicles (Construction and Use Regulations) 1986. Road Traffic Act 1988. Road Vehicle Lighting Regulations 1989. The Road Vehicles (Authorised Weight) Regulations 1998. The Road Vehicles (Authorisation of Special Types) (General) Order 2003. The Control of Electromagnetic Fields at Work Regulations 2016 Lifting Operations and Lifting Equipment Regulations 1998 This list is not exhaustive.
Acceptable Means of Compliance	Accountable Persons **should** make sure that: 1. A Legislation Compliance Assessment (LCA) is developed and maintained for all Land Systems and capabilities. 2. Legislation compliance risks and issues are reviewed at all SEC meetings. 3. As part of the SEC approval process, the outcomes of legislation compliance activities are accepted as suitable and sufficient by the Accountable Person. 4. If any Land System, equipment, or activity is found to be not compliant with legislation, applicable standards, or Defence policy, DLSR is notified and action is to be taken and documented to assess the risk and seek the appropriate authorisation for its continued use.
Further Guidance	**Legislation Compliance Assessment (LCA)** 1. Those holding safety and environmental responsibilities **should** ensure a suitable and sufficient LCA for each Land System is undertaken. The following **should** apply: a. **Proportionality.** The LCA **should** be proportionate to the level of risk and complexity of the system(s);

b. **Initiation of the LCA**. The LCA **should** be initiated at the earliest opportunity in the concept and assessment phases of a Land System acquisition project;

c. **Identification of Legislation**. There **should** be comprehensive identification of all legislative requirements for all Land Systems. This should also consider any requirements listed within the MTSR regulation 513;

d. **Content**. The LCA **should** record and evaluate the implications of the legislative requirements on the Land System and highlight areas of non-compliance with statute, identifying any potential DED required;

e. **Completion**. The LCA **should** be completed prior to the in-service phase of the Land System;

f. **Legacy Equipment**. All legacy Land Systems **should** have an appropriate LCA in place. Legacy systems include those systems where the design has already been accepted (design freeze) although the system may not yet be in service, and those systems which are already in service and where the potential safety or environmental impacts have not been considered in a way which can be shown to be in conformance with current SEMs requirements;

g. **Overseas Requirements**. Land Systems **should** comply with the laws of Host States where they apply, in circumstances where such requirements fall short of UK requirements, UK standards **should** be applied so far as it is reasonably practicable to do so. Any process for the provision of legislation compliance assurance **should** be the same as if used in the UK;

h. **Systems-of-Systems**. Where there are systems-of-systems, the lead / prime system **should** consider the legislation that will be relevant to the sub-systems;

i. **Availability**. LCAs **should** be understandable and readily available to all of the Land System stakeholders.

Proportionality

2. The Accountable Person **should** be able to demonstrate that they have in place Internal Management Procedures to ensure compliance with HS&EP legal requirements, Defence policy and Defence regulations for those personnel, assets, and activities for which they are responsible.

3. A formal LCA **should** be produced for bespoke and modified equipment. It may be decided not to produce formal LCA for Commercial Off The Shelf (COTS) equipment, however, there **should** be arrangements in place to make sure compliance with legislative and policy requirements.

Initiation of the LCA

4. An LCA **should** commence from the concept phase, forming part of the early development of the SEC. It **should** be developed throughout the early stages of the lifecycle and **should** be updated at various stages in the lifecycle of the system(s), for instance:

a. prior to first use, for example, test and trials;

b. during the in year review of systems;

c. when modifications and / or changes are made to the construction and / or use of system(s);

d. when there are new or changes to legislation which apply retrospectively;

e. when systems used for Urgent Capability Requirements are being transferred into Core.

Identification of Legislation

5. All legislation applicable throughout the lifecycle of the Land System **should** be identified, assessed, recorded, and monitored. The requirement to conduct an LCA **should** be read in conjunction with the guidance on the SEC.

Content

6. LCA **should**:

a) identify and record all relevant legislation that is applicable to the system(s) at point of intended use, including legislation with an available DEDs;

b) assess, mitigate, manage and record all decisions for the Land System or capability;

c) confirm compliance with applicable legislation in regard to its construction and use, ensuring all elements of the system have been considered (this includes the person and sub systems);

d) ascertain the system complies with the requirements of the SofS for Defence HS&EP Policy Statement;

e) The User Requirement Document and System Requirement Document for the system(s) is to be examined and used to conduct LCA, this **should** include the selection of legislation applicable to the design, manufacture, use and disposal of the system(s). The findings of the LCA **should** be recorded in a format which captures the headings listed below:

f) name of the system as defined in the relevant technical publication;

g) the systems type (essential to help identify the relevant legislation and standards);

h) relevant legislation and requirements as required by the chosen system type;

i) compliance status (OK, Non-Compliant (NC), or To Be Established (TBE)) with reasons, including applicability (directly applicable, exemption, derogation, or disapplication) and evidence to support the compliance status. There **should** also be an explanation of the rationale behind the compliance status assessment and identify the relevant item of the Land System in question;

(1) the compliance status of TBE is only acceptable for systems that are going through the early stages of the procurement cycle or system upgrades, where tests and trials are being used to confirm performance or conformity;

(2) the compliance status of TBE **should** not be present when systems are in service, where people can be placed at increased risk;

(3) the compliance status of TBE is seen as an unknown and as such a non-compliance.

j) technical and operational justification, if applicable, for each compliance status.

Completion

7. An LCA **should** be completed at the earliest opportunity to inform procurement decisions and any use of DEDs. The use of DEDs and the application for exemptions **should** only be considered when all practicable means of making a system compliant have been exhausted and applying for a DED is the only remaining option. Where any DED requires authorisation from an appropriate person or authority, authorisation is sought in line with the requirements of the relevant statute, Defence regulation or policy.

8. If the need for an exemption has been established, potential applicants **should** engage with the Land Exemptions Committee (LEC) Secretariat and provide a copy of the LCA.

9. The system(s) Safety and Environmental Panel (SEP) **should** endorse the LCA. The system(s) Accountable Person (supported by the delivery agents) is responsible for the completion and accuracy of the LCA prior to in service. Once the system(s) has entered Service the lead user (supported by the delivery agents) is then responsible for the management of the LCA through life.

Legacy Equipment

10. For legacy equipment, the LCA **should** consider the relevant legislation pertinent to the Land System. Most legislative standards will not be applied retrospectively i.e., what was current when the capability was introduced. Major modifications are to have current legislative standards applied.

Overseas Requirements

11. Where there is a DED from UK legislation or where Defence activities are conducted overseas (outside of the requirement to respond to host nations' relevant safety and environmental expectations and co-operate with their safety authorities), the Secretary of State's Policy Statement requires Defence to put in place arrangements that produce outcomes which are, so far as is reasonably practicable, at least as good as those required by UK legislation.

System-of-Systems

12. The LCA of the lead / prime platform **should** take primacy and account for any changes when used with associated sub-systems for example, weight and dimension.

Availability

13. The LCA **should** be easy to understand and readily available to all stakeholders, contactors and vehicle inspectors with an interest in the Land System, including the MOD regulator (LSSR), who require this to effectively manage DEDs.

Review

14. The LCA risks and issues **should** be reviewed regularly as part of the SEC requirements, this includes following modifications / upgrades.

15. The outcomes of legislation compliance activities are to be agreed as suitable and sufficient by the Accountable Person.

16. Where a non-compliance has been identified and no exemptions are available to the MOD, a legislation business case **should** be submitted to the LEC to endorse the request for change in the law. The UK Government department responsible for the legislation from which an exemption is sought will then consider the business case. Further details can be found on the DLSR Legislation and Compliance Defnet page: DLSR Regulation and Certification Team (sharepoint.com) (Internal MOD access only).

405 - Exemption Cases

Formerly LSSR regulation 10

Regulation	Accountable Persons **shall** make sure that a formal exemption case submission is presented to the DLSR where a legal exemption is necessary and permitted, prior to use, for each Land System in line with DLSR Standard Operating Procedure 3 – Land Exemptions Committee (Internal MOD access only).
Provenance	Policy Statement by the Secretary of State for Defence on Health, Safety and Environmental Protection in Defence.
Acceptable Means of Compliance	Accountable Persons **should** make sure that: 1. As part of the SEC approval process, the legislation compliance activities identify and record any appropriate exemptions applicable to the relevant Land System. 2. Where exemptions are identified, they are assessed, mitigated, and managed for the Land System or capability and decisions are recorded. 3. Where any exemption requires authorisation from an appropriate person or authority, authorisation is sought in line with the requirements of the relevant statute, Defence regulation or policy. 4. Any approved exemptions are included and recorded in their Land Systems SEC making all information relating to the management, conditions, and restrictions of exemptions available to the relevant stakeholders, including contractors and vehicle inspectors. 5. All personnel are informed that the approval of an exemption does not constitute the approval body's acceptance of the risk, rather a recognition that a suitable and sufficient argument has been provided to manage the use of an exemption.
Further Guidance	**Legislation Compliance Assessment** 1. In order to determine the requirement for a non-compliance such as an exemption, initial action requires an LCA to be undertaken. LCAs **should** be completed, monitored and reviewed for Land activities, equipment or systems to enable: a. the early identification of all legislation applicable to an activity, equipment, or a system; b. an assessment against each piece of legislation identified, and an assessment of the level of compliance or non-compliance. 2. This also applies to Urgent Capability Requirements (UCRs). In the case of UCRs, condensed LCAs are permissible to address the main legislative aspects relating to the activities, equipment or systems. However, if a subsequent plan arises to extend the life of the equipment or system, or develop it further, then there is a requirement to subsequently conduct and submit a full LCA.

3. Legislation compliance activities **should** start as early as possible in the Life Cycle of the System or Equipment, this will guide how and to what legislation it is to be compliant with. The LCA **should** be completed prior to the Full Business Case and contract award to inform procurement decisions and any application for exemption(s).

4. Where LCAs have identified and assessed non-compliances, all effort **should** be undertaken to address the non-compliances. The need to apply for exemptions **should** be a last resort and **should** only arise when all avenues to address the non-compliances have been exhausted.

Disapplication's, Exemptions and Derogations

5. One of the major outputs from the LCA is the identification of any DEDs. These DEDs may only be used for Defence purposes, in the interests of National Security or be pertinent because of the way the system or equipment is built, used, or employed, and remain reflective of the Land System and their status and use, and be kept up to date.

Exemption Case Submission

6. Where non-compliances have been identified and exemptions are available to the MOD, an application in the form of an exemption case **should** be submitted to the LEC. The Exemption Case Submission (ECS) template (Internal MOD access only) is available from the DSA web page – DLSR– Regulation and Certification Team.

7. The purpose of the exemption case is to justify, with evidence, the need to invoke an exemption and to demonstrate that all mitigations have been identified and reduce the associated risks to levels that are considered to be ALARP. The exemption case **should** also capture the reasoning behind the arguments which justify the request for any exemption.

8. A single exemption case **should** be submitted for each system for which exemption is being sought prior to use. The information used to build the exemption case **should** be drawn from the Safety Case and the LCA.

9. The approval of an exemption is in no way the approval body's acceptance of the presented risk, it is purely a recognition that a suitable and sufficient argument has been provided to manage the use of an exemption.

10. DLSR is be notified of any significant changes in regard to the management or operation of the Land System that affects any exemption granted by the LEC, and any requirements that entail a change in legislation in regard to compliance of Operational Military Vehicles (OMV(s)).

406 - System Management

Formerly LSSR regulation 15

Regulation	1. The Accountable Person **shall** make sure that documented management arrangements, processes and procedures are in place for their specific Land System or capability prior to use and as a minimum includes: a. equipment care; b. Safety and Environmental Case Report; c. Configuration Management (CM); d. asset management; e. record keeping; f. safety and Engineering Notices; g. mandatory Inspection, Testing and Calibration Standards. 2. The Accountable Person **shall** make sure the above management arrangements are maintained, reviewed, and updated at regular intervals throughout the life of the Land System or capability.
Provenance	The Motor Vehicles (Test) Regulations 1981. The Road Vehicles (Construction and Use Regulations) 1986. Goods Vehicles (Plating and Testing) Regulations 1988. The Provision and Use of Work Equipment Regulations 1998 (PUWER). Road Traffic Act 1988. Road Vehicle Lighting Regulations 1989. The Road Vehicles (Registration and Licensing) Regulations 2002. The Control of Electromagnetic Fields at Work Regulations 2016 Lifting Operations and Lifting Equipment Regulations 1998 The Health and Safety at Work Act 1974 This list is not exhaustive.
Acceptable Means of Compliance	Accountable Persons **should** make sure that: 1. **Equipment Care.** Suitable and sufficient equipment care arrangements are captured and undertaken to maintain Land Systems or capabilities in an operational state, mitigating safety and environmental risks.

	2. **Training for Maintenance and Use.** The requirements for regular maintenance of Land Systems or capabilities are captured and undertaken in accordance with relevant technical documentation. 3. All personnel conducting maintenance activities on the Land System or capability are competent and current to a defined and suitable standard. 4. All personnel using the Land System or capability are competent and current to a defined and suitable standard. 5. **Configuration Management.** Through life CM plans are documented and allow minor changes, modifications, and upgrades to be effectively assessed, managed, recorded, and communicated. This includes changes to scope of use. 6. **Asset Management.** An Asset Management System is identified and utilised to allow the effective management of individual systems and their relevant component parts. This Asset Management System **should** record (as a minimum) such things as: a. asset location; b. asset custodian; c. asset serviceability condition; d. asset maintenance events; e. asset maintenance records; f. relevant asset information such as mileage. 7. **Record Keeping.** A process is established and applied to ensure all significant Land System or capability safety and environmental related records are retained, tracked, and preserved in an available and auditable manner. 8. That significant Land System or capability HS&EP related documents are available to all stakeholders throughout the life of the Land System or capability. 9. **Safety and Engineering Notices.** An effective process is identified and utilised in order to communicate and manage urgent and emerging Safety and Engineering issues to the relevant and effected personnel. 10. Urgent and Emerging Safety and Engineering issues are communicated via a notice that clearly advises: a. the issue; b. the effected Land System or capability; c. the impact to relevant personnel; d. required actions.

	11. Urgent and Emerging Safety and Engineering Issues are reviewed regularly against the SEC with updates made where relevant. 12. **Mandatory Inspection, Testing and Calibration Standards.** Suitable and sufficient processes **should** be in place to ensure all Land equipment or capabilities are inspected, tested, and calibrated in accordance with the relevant technical documentation and is recorded on an asset management system.
Further Guidance	**Equipment Care** 1. Equipment Care (EC) is defined as the process employed by commanders and equipment users to make sure that their equipment achieves the highest levels of availability in the most cost-effective manner. EC applies to all Land Systems (hardware and software). EC includes all the routine cleaning, maintenance, forecasting, test and inspection that may be necessary and is the responsibility of the users, assisted by the engineering function. 2. Commanders and managers **should** make sure that those responsible for equipment management are made aware of their safety and environmental obligations. 3. EC **should** be the means of ensuring that the people, system(s), processes and resources that deliver the integrity of Land System(s) are in place, in use and will perform when required throughout its lifecycle. 4. Regular maintenance of Land Systems has an important role in minimising hazards and providing safer and healthier working conditions and **should** be undertaken in accordance with relevant technical documentation. 5. EC **should** include the cleaning, maintenance, forecasting, test and inspection that may be necessary to ensure that equipment achieves the highest levels of availability and is kept in an operational state. 6. All Commanders and managers **should** have organisation and arrangements documented and in place to make sure the effective management of Land System(s) under their responsibility. These arrangements **should** include: a. maintenance schedules and procedures which are properly managed to maintain the designed material state of the Land System including the control of ageing / obsolescent materiel; b. procedures for ensuring shortfalls in maintenance are identified and assessed for safety and environmental impact; c. procedures for ensuring changes to maintenance requirements or scheduling are analysed for impact on the Safety and Environmental Case; d. processes for defect reporting that are properly implemented; e. processes for the provision of spares to support maintenance of material state; f. processes to manage design changes and to maintain the material state;

g. where appropriate, recovery procedures **should** be documented and planned to ensure the safe extraction of an abandoned, disabled or immobilised Land System;

h. regular review and audit of the arrangements **should** be sufficient and in place.

7. All Commanders and managers **should** have organisation and arrangements documented and in place to ensure the effective management of ageing / obsolescent Land System(s) under their responsibility.

8. Chapter 22 of JSP 375 sets out the MOD procedures and guidance for managing the safe use of work equipment.

9. The organisations engaged in or contributing to Defence Land System activity undertaking maintenance on Land Systems will have their own processes in place to provide guidance and assurance for their organisations carrying out equipment care. For example, Defence organisations sponsored policies / standards / procedures on equipment care, include:

a. Land Equipment Engineering Standards (LEES);

b. Land Equipment User Maintenance Standards (LEUMS);

c. Technical Documentation: to be maintained in the assured standard;

d. Defence Air Environment policy used by Air Command Defence organisations to manage their Land Systems;

e. Equipment Support Standing Instruction Ki 4210.

Training for Maintenance and Use

10. Those holding safety and environmental responsibilities **should** have organisation and arrangements documented and in place to ensure the suitable and sufficient training for maintenance activities. The roles, responsibilities, training and competencies **should** be in place before the maintenance activity is undertaken.

11. Defence organisations sponsored policies / standards / procedures include:

a. JSP 375: Management Health and Safety in Defence, Chapter 8;

b. ES handbook;

c. AP100B-01 - RAF Engineering Policy.

Configuration Management

12. CM is an enterprise-wide management activity that focuses on the through life management of changes to a product as-designed, as-built and as-maintained standard. The changes may take the form of in-service modification to: Improve safety, reduce risk, mitigate obsolescence, allow for technology insertion, enhance capability, improve performance and supportability, correction of product defects and to comply with legislative changes.

13. Land Systems **should** be managed throughout their lifecycle and their configurations controlled / managed and documented accordingly to ensure they are designed, brought into service, operated and maintained in-service and finally disposed of in accordance with legislation and MOD policy.

14. CM is a key engineering function, and its application is a critical enabler for product safety and supportability. CM **should** be a through life activity and must be considered at the earliest stages in the capability lifecycle, following determination of land proportionate certification in line with the 600 Series regulations.

15. Consideration **should** be given to any safety-critical and / or safety-related systems.

a. A safety-critical system is a system (hardware or software) whose failure or malfunction may result in one or more of the following outcomes: death or serious injury to people, loss or severe damage to equipment / property, or environmental harm.

b. A safety-related system comprises of every element (i.e. hardware, software, and human aspects) required to perform one or more safety functions in which failure would cause a significant increase in the safety risk to people or the environment involved.

c. Safety-related systems are those that do not have full responsibility for controlling hazards such as loss of life, severe injury, or severe environmental damage. The malfunction of a safety-involved system would only be that hazardous in conjunction with the failure of other systems or human error.

16. If CM is carried out internally by the delivery team, the five main principles **should** be implemented in accordance with JSP 945 (Internal MOD access only) Part 1 MOD Policy for Configuration Management.

17. If CM is contracted out to a Design Organisation / Supplier / Original Equipment Manufacturer, then the requirements within Def Stan 05-057 **should** be applied.

18. It must be noted that even when a product CM is contracted out, the MOD **should** still be accountable and retains the ultimate Authority for authorising product design changes.

Asset Management

19. An approved Management Information System (MIS) **should** be utilised to enable the effective management of individual systems or capabilities.

20. The current MIS is Joint Asset Management and Engineering Solutions (JAMES), which provides a comprehensive Engineering and Asset Management information management capability for users operating throughout the Land Domain. JAMES provides the information architecture to support wider exploitation of equipment data, with an extensive Library of Reports, available within the application and a reports repository and data mining tool for specific reporting requirements. Further details can be found in the JAMES support documentation.

21. The management of assets throughout the lifecycle can be found in a number of key regulatory publications, JSPs and standards associated with asset integrity including:

a. JSP 790: MOD Rail Safety Management. (Internal MOD access only);

b. LEES;

c. LEUMS;

d. Def Stan 00-600: Integrated Logistics Support for MOD projects. (Internal Defence Gateway access only);

e. JAMES SOP 20;

f. AP100B-01 – RAF Engineering Policy;

g. JAP100E-10 Military Airfield Support Equipment Management and Policy;

h. Equipment Standards Regulatory Schedule (ESRS).

Record Keeping

22. Poor and inadequate records management creates risk to MOD, including the risk to current or future operations, the risk that MOD does not comply with legislation and / or regulations and the risk that MOD is unable to support legal proceedings. For these reasons it is important that records are correctly retained.

23. A process **should** be established and applied to make sure all significant Land System safety and environmental related documents are retained, tracked and preserved in an auditable manner. Records **should** be retained / archived and be available throughout the lifecycle of the Land System.

24. Before destruction of a significant Land System safety or environmental document, a thorough review **should** be carried out by competent personnel to ascertain whether the information in the document must be retained.

25. Guidance on record management and retention throughout the lifecycle can be found in a number of documents, including:

a. JSP 375: Volume 1, Chapter 39 (Internal MOD access only) provides the procedures and guidance for the management and retention of health and safety records in defence, including the length of time records need to be kept and where;

b. JSP 441: Defence Records Management Policy and Procedures (Internal MOD access only) provides comprehensive guidance on record retention policies across Defence and are to be consulted in conjunction with JSP 375.

Safety and Engineering Notices

26. An effective process **should** be employed to allow the formal notification to the user and other interested parties that an important safety issue has arisen with a capability and that the user **should** take action to mitigate any risk while a longer-term solution is sought.

27. There must be the ability to review the notifications against the SEC to ensure they are still extant, and a maximum validity of 12-months **should** apply.

28. Further guidance on the process to be followed can be sought from Army Command Standing Orders (ACSO) 1201 and the Capability Safety Group (CSG) Electronic Safety Notice (ESN) policy document.

Mandatory Inspection, Testing and Calibration

29. An effective process **should** be in place to ensure all Land equipment is:

a. inspected by competent persons in accordance with any relevant technical documentation at the intervals specified;

b. tested by competent persons in accordance with any relevant technical documentation or manufacturer's instructions;

c. calibrated at the intervals specified for the item and in accordance with technical documentation or manufacturer's instructions.

30. All results **should** be formally recorded.

407 - Vehicle Mandatory Equipment Inspections

Regulation	Accountable Persons **shall** make sure that Mandatory Equipment Inspections (MEIs) are conducted on road-going vehicles and non road-going Mobile Machinery in line with the ESRS.
Provenance	The Motor Vehicles (Test) Regulations 1981. Goods Vehicles (Plating and Testing) Regulations 1988.
Acceptable Means of Compliance	Accountable Persons **shall** make sure that MEIs are recorded on an asset management system and clearly demonstrate how they are conducted in-line with the ESRS.
Further Guidance	ESRS (Internal MOD access only)

408 - Vehicle Maintenance

Regulation	Accountable Persons **shall** make sure that military road-going vehicles and non road-going Mobile Machinery are maintained in line with the ESRS.
Provenance	The Road Vehicles (Construction and Use Regulations) 1986. PUWER 1998. Road Traffic Act 1988. Road Vehicle Lighting Regulations 1989. The Road Vehicles (Authorised Weight) Regulations 1998. The Road Vehicles (Authorisation of Special Types) (General) Order 2003.
Acceptable Means of Compliance	Accountable Persons **shall** make sure that the maintenance of road-going vehicles (including roadworthiness and role equipment assessments) is recorded on an asset management system and clearly demonstrate how they are conducted in-line with the ESRS.
Further Guidance	ESRS (Internal MOD access only)

409 - Mandatory Equipment Inspection Facilities

Regulation	Accountable Persons **shall** make sure that MEI facilities meet the requirements of the ESRS.
Provenance	The Motor Vehicles (Test) Regulations 1981. Goods Vehicles (Plating and Testing) Regulations 1988. The Road Traffic Act 1988.
Acceptable Means of Compliance	Accountable Persons **shall** make sure that MEI facilities are recorded, registered, and assured to meet the requirements of the ESRS.
Further Guidance	ESRS (Internal MOD access only)

410 - Authorisation of Mandatory Equipment Inspection Facilities

Regulation	Accountable Persons **shall** make sure that test facilities (including those carried out by approved civilian contractors) are authorised in-line with the ESRS.
Provenance	The Road Traffic Act 1988.
Acceptable Means of Compliance	Accountable Persons **shall** ensure that inspection and testing is only to be carried out in an appropriately equipped and authorised facility as per Standards and Inspection Manual (SIM 14).
Further Guidance	ESRS (Internal MOD access only)

411 - Certification of Vehicles Transporting Hazardous Materials

Regulation	Accountable Persons **shall** make sure that all vehicle types that are required for the Carriage of Dangerous Goods (CDG) by road shall have their periodic examination / certification completed in accordance with the Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR) (and when applicable International Maritime Dangerous Goods (IMDG) / International Carriage of Dangerous Goods by Rail / International Air Transport Association Dangerous Goods Regulations) legislation and ESRS. Accountable Persons **shall** also make sure that road going tanker vehicles and trailers which are ADR / IMDG certified shall be tank certified in accordance with the ESRS.
Provenance	The Motor Vehicles (Test) Regulations 1981. Goods Vehicles (Plating and Testing) Regulations 1988. The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009.
Acceptable Means of Compliance	The Accountable Person **shall** ensure vehicles certified as ADR which are used for the carriage of Dangerous Goods and operated in overseas training locations, the UK or within another ADR signatory country, shall have their certification maintained as per ACSO 4539. The Accountable Person **shall** ensure that tank inspections are conducted by Authorised Inspection Bodies as per the ESRS.
Further Guidance	ESRS (Internal MOD access only) ACSO 4539.

412 – Land System Sale

Regulation	The Accountable Person for a Land System **shall** make sure that upon sale, the designated MOD disposal agency or receiving persons are formally notified of the legal, safety and environmental issues associated with that Land System or its component parts. The formal notification shall include, as a minimum: a. relevant risks and mitigations; b. the identification of Hazardous materials; c. relevant DEDs from legislation; d. that DEDs from legislation apply solely for UK Defence purposes and when granted for a Land System cannot be transferred when systems are sold.
Provenance	Policy Statement by the Secretary of State for Defence on Health, Safety and Environmental Protection in Defence. Health and Safety at Work, etc. Act 1974. Environmental Protection Act 1990. The Waste Electrical and Electronic Equipment Regulations 2013.
Acceptable Means of Compliance	The Accountable Person **should** ensure that the sale of the Land System, or capability or its component parts is considered within the SEC.
Further Guidance	1. Organisations engaged in or contributing to Defence Land System activity **should** manage the sale of Land Systems throughout the system lifecycle to ensure the safety of third-party buyers / agencies are not put in danger. 2. Land System risks need be identified, recorded and passed onto relevant parties. This is to ensure that third parties (such as disposal contractors or prospective buyers) can make informed risk decisions. Absence of known risk information could cause harm to people and the environment. 3. Legal requirements pertaining to the system must also be advised (for example clearly annotating a military vehicle subject to exemptions under the Road Vehicles (Construction and Use) Regulations 1986 as being “not roadworthy”, under section 75 of the Road Traffic Act 1988). 4. Those holding safety and environmental responsibilities **should** ensure that the MOD disposal authority is informed of the relevant safety and environmental issues, prior to their joint agreement as to the best contractual route for disposal i.e., sale. This **should** include:

	a. a disposal Safety and Environmental Case Report. This **should** include a snapshot of the health, safety and environmental protection performance and highlight areas of weakness in the safety or environmental arguments; b. a register of relevant safety issues, for example, safety notices; c. any DEDs applicable to the system; d. a register of the systems hazardous materials with accompanying Safety Data Sheets **should** be produced and provided to the disposal authority. 5. The MOD disposal authority (Defence Equipment Sales Authority (DESA)) **should** ensure the buyer is made aware of relevant safety and environmental issues highlighted by the organisation that is responsible for the system prior to sale / disposal. a. Disclaimer. The MOD disposal authority **should** provide a general disclaimer to alert the new owners of Defence equipment of any potential safety and environmental risks, including information on its safe usage and maintenance. b. Legislative Requirements. The organisation that makes the Land System available for disposal **should** ensure all legislative requirement are met (excluding where defence have DEDs). 6. Legal requirements pertaining to the system **should** be advised (for example clearly annotating that the equipment has been classified as a military vehicle). 7. DEDs from legislation apply solely for UK Defence purposes and when granted for a Land System cannot be transferred when systems are sold.

413 – Land System Disposal

Regulation	Accountable Persons **shall** make sure that a disposal plan for the Land System, or capability, its component parts and associated consumable items is developed and included within the SEC.
Provenance	Policy Statement by the Secretary of State for Defence on Health, Safety and Environmental Protection in Defence. Health and Safety at Work, etc. Act 1974. Environmental Protection Act 1990. The Waste Electrical and Electronic Equipment Regulations 2013.
Acceptable Means of Compliance	Acceptable Means of Compliance: Accountable Persons **should** make sure that: 1. Through life and end of life disposal is in line with safety and environmental legislative requirements. 2. DESA is the Authority for the disposal of MOD equipment and are to advise the Accountable Person of any safety and environmental residual risk due to disposal. 3. There is an appropriate Disposal Plan outlining any issues to be considered by the DESA. 4. Safety and environmental evidence are retained until after system disposal to assist with potential future enquiries.
Further Guidance	**Disposal** 1. Disposal includes: a. the sale of a Land System; b. the recycling of a Land System and / or its component parts; c. the scrapping of a Land System and / or its component parts; d. the gifting of a Land System and / or its component parts. 2. Disposal can be divided into two areas: a. through life disposal: (1) through accidents where procedures **should** be written to cover this eventuality, and this **should** also be covered in the risk registers; (2) routine disposal of consumables, items replaced by modifications and mod-life upgrades **should** be disposed of in line with legislative requirements.

b. end of life disposal:

(1) a formal Disposal Plan **should** be in place as soon as reasonably practical, identifying how to dispose of equipment safely and environmentally soundly.

3. DESA is the authority for the disposal of MOD equipment (Except Nuclear, Land and Buildings). The Disposal Authority **should** determine and advise the Accountable Person if the residual safety and environmental risk associated with the Land System may put constraints on the type of disposal activity.

4. Those holding safety and environmental responsibilities **should** ensure that the MOD disposal authority is informed of the relevant safety and environmental issues, prior to their joint agreement as to the best contractual route for disposal. This **should** include:

a. disposal Safety and Environmental Case Report. This **should** include a snapshot of the safety and environmental protection performance and highlight areas of weakness in the safety or environmental arguments;

b. a register of relevant safety issues, for example, safety notices;

c. any DEDs applicable to the system;

d. a register of the system's hazardous materials with accompanying Safety Data Sheets **should** be produced and provided to the disposal authority;

e. information pertinent to the demilitarization of the Land equipment.

5. Arrangements **should** be in place to maintain not only the system's safety and environmental impact while In-Service but also right through to Disposal. This may take the form of a SEC which is maintained throughout the acquisition lifecycle that identifies, evaluates, and manages the risk from concept development through to disposal. Absence of known risk information could cause harm to people and the environment.

Other Factors to Consider

6. Disposal **should** be referenced in all applicable plans within the Through Life Management Plan.

7. The DESA **should** inform prospective disposal contractors that Land Systems may not be legally compliant or road worthy for civilian use.

8. Safety and environmental evidence **should** be retained until after system disposal (either on hard or electronic copy). There may be legal requirements for the retention of some data, such as health monitoring records.

Defence
Safety Authority

DSA DLSR Movement and Transport Safety Regulator

The Movement and Transport Safety and Environmental Regulations

Contents

Amendment Table

Version Record		
Version Number	**Version Date**	**Changes to Previous Version**
1.0	May 2024	Document issued MTSR SR 5th edition reformatted in line with DLSR regulations Removal of regulatory schedules into linked manuals

Movement and Transport Safety and Environmental Regulations

Part 1: Overview

1. The Secretary of State's policy on Health, Safety and Environmental Protection (HS&EP) requires the Ministry of Defence to comply with or meet equivalent standards to those laid out in legislation. This is particularly important in the complex and high-risk execution of Movement and Transport (M&T) activity.

2. The regulations in this publication set out how Defence will execute this responsibility and are to be followed by all organisations and personnel involved in the planning, management, supervision or execution of M&T activity. These M&T Safety and Environmental Regulations (S&ER) supplement rather than replace existing legislative obligations when conducting Defence activity in the UK or abroad and **should** be read in conjunction with the relevant legislation in those instances.

3. This publication provides the direction on what **should** be done to comply with the regulations and offers wider detail and guidance, including examples and acceptable means of compliance where appropriate.

4. Due to the specialist nature and inherent hazards associated with M&T activity, the MTSR (the Regulator) has issued these regulations to provide additional requirements with specific procedures, assessments, and technical requirements. DLSR regulations highlighted in Annex A **should** also be complied with.

5. M&T activities incur hazards and risks that are subject to both general Health, Safety and Environmental Protection (HS&EP) legislation and functional specific legislation. M&T S&ER aim to make sure that the levels of inherent risk presented by M&T activities conducted by, or on behalf of, the MOD can be demonstrated to be broadly acceptable, or tolerable and As Low As Reasonably Practicable (ALARP).

6. The assessment of inherent M&T risks presented to MOD personnel, third parties, materiel and the environment applies across the whole acquisition cycle.

Further Advice and Feedback - Contacts

7. The owner of M&T S&ER is the Regulator. For further information on any aspect of this document, or questions not answered within the subsequent sections, or to provide feedback on content, contact:

Job title / e-mail	Role focus
DSA-DLSR-MTSR	MTSR
DSA-DLSR-MTSR-Reg-SO1	SO1 Regulate (Document Editor)
DSA-DLSR-MTSR-Reg-SO2-DG	Dangerous Goods
DSA-DLSR-MTSR-Reg-SO2-RdTpt	Road Transport
DSA-DLSR-MTSR-Reg-SO2-Mov	Movements

Amendments

8. M&T S&ER will be reviewed on a regular basis for accuracy; any proposed editorial amendments are to be submitted through the document editor. Any proposals for change or challenge to regulations are to be staffed through the chain of command to the Defence organisation's representative on the MTSR Stakeholder Working Group (SWG). The M&T SE&R is a live document and amendments may be published at any time in response to changes in legislation, MOD policy and / or information, which identifies the requirement that regulation, standards, or guidance, requires review.

Definition of Movement and Transport

9. M&T covers a wide and varied range of functional disciplines and often requires pan-Defence cooperation in the conduct of activities. M&T S&ER cover safety requirements for the planning, preparation, and execution of all M&T activities worldwide. The regulatory requirements **shall** be applied to all M&T activity conducted by Defence organisations or Defence contractors employing military, MOD civilian or MOD contracted personnel (Including where Defence regulatory requirements have been included in contracts).

10. M&T is interpreted as the planning, risk management, control, and execution of the change in location of vehicles, personnel, or equipment, as part of a Defence operation, by road, rail, sea, inland waterways, air and / or inter-modal transport. The term movement is inclusive of the supporting capabilities of mobility, transportation, infrastructure, movement control and support functions required to undertake movement tasks. Broadly defined, M&T activities and disciplines cover the following:

a. safe movement of vehicles, freight and personnel by road, rail, air, and water;

b. safe operation of MOD rail;

c. safe use and management of MOD provided vehicles;

d. road and transport workplace safety;

e. safety of loads and load restraint – by all modes;

f. transport of dangerous goods – by all modes;

g. management and use of International Organisation for Standardisation freight containers;

h. environment and biosecurity requirements for M&T activities.

M&T Safety Committee Hierarchy

11. **The MTSR Stakeholder Working Group**. The MTSR SWG is chaired by the Regulator. The MTSR SWG is a medium for developing work directed by the DLSR Stakeholder Committee (SC), to discuss M&T safety issues within the Defence organisations to escalate issues to the DLSR SC. The MTSR SWG, is supported by an Editorial Working Group (EWG).

12. **The MTSR Editorial Working Group**. The MTSR EWG is attended by Subject Matter Experts (SME) from MTSR and the stakeholder community to provide a forum for knowledgeable review and update of M&T S&ER, safety policy and guidance.

Legislative Foundation

13. These regulations are developed utilising principles installed in European and UK legislation. This provides MTSR with a reputable framework in which to underpin specific regulations that ensures MOD protects its personnel and the environment. The advantage of establishing regulations on existing legislative principles is the easy recognition across the MOD, industry partners, Health and Safety Executive (HSE), Environment Agency and other government departments.

Legal Requirement

14. The MOD has legal and moral responsibilities to its employees and to other people who **could** be affected by its activities, with the Secretary of State (SofS) for Defence having overall responsibility for HS&EP, and sustainable development in the MOD. As such, the MOD **shall** comply with all applicable legislation and statutory provisions, covering safety as well as those that apply to environmental protection and sustainable development.

15. Within the M&T domain this requires Defence organisations, Trading Fund Agency, Chief Executives, Commanding Officers (CO) and Heads of Establishment (HOE), Duty Holders, and anyone else with responsibilities for managing Defence activities to comply with UK (or local) legislation, HS&EP policy, and these regulations to manage M&T risk.

Defence M&T Safety and Environmental Regulations

16. M&T covers a wide and varied range of functional disciplines that often require pan-department cooperation, with tasks routinely involving military activity interfacing directly with commercial operations and the public. The requirements of the SofS policy statement are applied in the MOD through the application of M&T S&ER. The MTSR regulatory regime focuses on those areas where:

a. the law does not apply to the MOD, i.e., where it has Disapplications, Exemptions or Derogations (DED) from statute. In which case, MTSR **shall** maintain departmental arrangements that produce outcomes that are, so far as reasonably practicable, at least as good as those required by UK legislation;

b. there is an absence of statutory requirement;

c. there is a need for independent regulatory assurance due to high hazard activity;

d. there is a need for a coherent set of regulations (i.e., to place the DEDs into context where they refer to or need some explanation from statutory regulations);

e. MTSR provides clarification of legislative requirements by setting Defence regulations and standards to make sure the safe conduct of pan-Defence M&T activity and prevent the export of risk into the public domain;

f. Defence M&T activities are undertaken overseas. In these circumstances, Defence M&T regulations and arrangements will apply as a minimum, considering host nation requirements.

Defence Level Policy

17. The Directorate of Defence Safety (DDS) is now the functional lead for Defence safety and is responsible for developing and maintaining effective safety policies and guidance on behalf of the SofS for Defence. JSP 815 is the Defence Safety Management System (SMS) and provides the necessary framework, direction and guidance to enable Defence organisations to develop and implement their own safety management systems.

18. The functional lead for environmental protection is now the responsibility of the Directorate of Levelling Up, Climate Change and Sustainability. JSP 816 provides the Defence Environmental Management System (EMS) framework of goals and guidance to enable Defence organisations to develop and implement their own environmental protection management systems.

Compliance with M&T S&ER

19. Failure to comply with M&T S&ER can lead to enforcement action being taken by MTSR.

Annex A - Applicability of DLSR Regulations

1. This Annex shows the DLSR regulatory 100 series describing the requirements for all Defence Land Domain activities relating to Adventurous Training, Fuel and Gas installations, Land Systems and M&T activities. It is replicated below for ease of access.

2. All personnel engaged in M&T activities **should** be aware of the requirements of DLSR regulations and comply with them. All M&T S&ER **should** be read in conjunction with these DLSR regulations.

Regulation 101 - Authority and Accountability. Each organisation engaged in (or contributing to) Defence Land Domain activities **shall** identify the Accountable Person(s) who sets down and implements the HS&EP management arrangements for activities in their specified area of responsibility.

Applicability	All M&T S&ER
See Also	Part 1

Regulation 102 - Safety and Environmental Management System(s). Accountable Persons **shall** produce, maintain and follow a suitable and sufficient SEMS for their area of responsibility and operate in-line with it.

Applicability	All M&T S&ER
See Also	Part 1 Regulation 501: M&T Safety Management

Regulation 103 - Assurance. Accountable Persons **shall** make sure that suitable and sufficient assurance activities are carried out to demonstrate compliance with DLSR regulations.

Applicability	All M&T S&ER
See Also	Part 1 Regulation 502: Workplace Transport Safety Regulation 503: Establishing a Safe System of Work Regulation 505: Defence Driver Licence Acquisition and Associated Training Regulation 509: Control and Use of MOD Emergency Vehicles Regulation 512: Control Management and Use of MOD Provided Vehicles

Regulation 104 - Environmental Protection. Accountable Persons **shall** ensure that all practical steps are taken to prevent, mitigate and remedy environmental damage caused by Defence Land Domain activity.

Applicability	All M&T S&ER
See Also	Part 1 Regulation 501: M&T Safety Management

Regulation 105 - Competence and Currency. Accountable Persons **shall** make sure that all personnel possess the combination of appropriate and current: knowledge, skills, experience and behaviours, that allow them to make informed decisions and carry out a defined task (perform or supervise), along with the currency of that knowledge, skills, experience and ability to apply it in a given work situation.

Applicability	All M&T S&ER
See Also	Part 1 Regulation 502: Workplace Transport Safety Regulation 503: Establishing a Safe System of Work Regulation 505: Defence Driver Licence Acquisition and Associated Training Regulation 507: M&T Activity Incident, Accident and Non-Compliance Reporting Regulation 509: Control and use of MOD Emergency Vehicles Regulation 511: Defence Rail Operating Regulation 512: Control, Management and use of MOD Provided Vehicles Regulation 514: Driver Management

Regulation 106 - Duly Authorised Organisations. Duly Authorised Organisations authorised by DLSR to conduct specific activities **shall** demonstrate compliance with their respective Charter.

Applicability	All M&T S&ER
See Also	Part 1 Regulation 503: Establishing a Safe System of Work Regulation 505: Defence Driver Licence Acquisition and Associated Training Regulation 507: M&T Activity Incident, Accident and Non-Compliance Reporting Regulation 509: Control and use of MOD Emergency Vehicles Regulation 511: Defence Rail Operating Regulation 512: Control, Management and use of MOD Provided Vehicles Regulation 514: Driver Management

Part 2: Regulations, Schedules and Acceptable Means of Compliance

Introduction

1. The Ministry of Defence has a duty to protect its employees, especially those that may be affected by its activities and the environment. Effective HS&EP is essential; effective management arrangements are crucial to force protection and maximising operational capability.

2. M&T S&ER uses schedules to provide additional details of regulatory requirements and how the provisions of the regulations are to work in practice. Due to the cross-cutting nature of M&T activity, full consideration **shall** be given to the regulatory requirements of other Defence Regulators, i.e., the requirements of DSA02 Ordnance, Munitions and Explosives (OME) regulations when handling, transporting or staging explosives.

3. In this part, the schedules provide the necessary detail and direction to support a regulation, while an AMC provides practical advice and guidance on the standards and what is required to achieve compliance. They are designed to clarify legislative requirements, set Defence standards, and identify roles and responsibilities. An AMC provides Defence regulatory advice, which if followed, will be considered sufficient to demonstrate compliance. Guidance material may also be included which, while not compulsory, may also be considered 'good practice' to further support the regulations.

4. Alternative approaches may be utilised where they produce outcomes as good as those required by the regulation. Justification may be required when alternative approaches are employed, and the requirements and advice contained in an AMC may be used as evidence during enforcement action. Where alternative approaches have been implemented, the onus will be on those holding safety and environmental responsibilities to prove that actions undertaken produced an outcome that meets the requirements of the regulations.

5. The AMC emulates the layout used by other DSA regulators and is set in these regulations in the following format:

Regulation	The Defence regulation is reiterated in the relevant AMC to aid clarity and reinforce the relationship and precedence of the regulation to the AMC. Each regulation may contain several sub-clauses or schedules that are pertinent to that regulation. **Note:** Regulations should not be read in isolation as there may be more than one regulation which effects a particular M&T activity.
Provenance	The reason why the Defence regulation is applied to the MOD, ideally with reference to national legislation, British Standards, or industry codes of practice.
Acceptable Means of Compliance	The AMC provides practical advice on compliance with Defence regulation. If the AMC is followed, then this will be considered sufficient to demonstrate compliance. Alternative approaches may be used where this produces an outcome that can be demonstrated to be as good as required by the regulation.
Further Guidance	Provides guidance material, which, while not compulsory, may be considered 'good practice' to further support the regulations and AMC.

Terminology

6. There are four key definitions that apply to the implementation of Defence M&T regulations:

a. **Must**. A legal requirement which describes an activity mandated by legislation;

b. **Shall**. A Defence specific requirement - Describes an activity that is mandated by Defence;

c. **Should**. Defence regulatory advice - If the advice is followed then this will be considered sufficient to demonstrate compliance with a regulation. However, alternative approaches may be utilised where this produces an outcome as good as required by the regulation;

d. **Could**. Defence regulatory guidance - Describes an activity or course of action that is considered good practice.

501 - M&T Safety Management

Regulation	Those planning, managing, supporting, or undertaking M&T activity **shall** have arrangements in place to make sure that all activity is conducted safely and in line with national and international legislation, Defence regulation and HS&EP policy.
Sub-clauses	1. **Legislation compliance**. Those planning, managing, supporting, or undertaking M&T activity **shall** undertake a suitable and sufficient legislation compliance assessment for each element of the activity. 2. **Exemption Case Submissions (ECS)**. Those responsible for the management of M&T activity **shall** present a formal ECS to the Land Exemption Committee for any M&T activity where a legal exemption is deemed necessary. Where an exemption from Defence M&T regulations is sought, an exemption case **shall** be submitted to the MTSR. 3. **Safety and Environmental Management Arrangements**. Arrangements **shall** be in place to make sure that those planning, managing, supporting, or undertaking M&T activity document, maintain and use suitable and sufficient arrangements for the management of HS&EP. 4. **Emergency arrangements**. Those planning, managing, supporting, or undertaking M&T activity **shall** make sure that documented emergency arrangements are made available to those who may be called upon to attend and resolve an emergency.
Provenance	The Health and Safety at Work Act 1974. The Management of Health and Safety at Work Regulations 1999. BS ISO 45001:2018: Occupational health and safety management systems. BS ISO 14001: Environmental Management Systems. As a key enabler to the effective delivery of operational capability, robust safety management ensures a systematic, pro-active, and auditable approach to the management of M&T risks. Central to safety management is the intellectual activity and decision making which is enabled by the necessary organisational structures, accountabilities, policies, and procedures. M&T covers a wide and varied range of functional disciplines that often require Defence organisation cooperation, with tasks routinely involving military activity interfacing directly with commercial operations and the public. The conduct of M&T functions cross multiple regulatory boundaries; and include areas of activity which present unique or increased levels of risk that have previously resulted in Crown Censure. There are several DEDs available to Defence and these regulations provide clarification of legislative and Defence requirements by setting a set of coherent standards to make sure the safe conduct of Defence organisation M&T activity and prevent the export of risk into the public domain.

Acceptable Means of Compliance	1. **Legislation Compliance Assessment (LCA)**. Those planning, managing, supporting, or undertaking M&T activity **should** conduct an LCA for each element of the activity. All activity **should** be assessed against the requirements of national, international and Defence standards as appropriate. 2. Prior to the conduct of any activity, an assessment **should** be undertaken to make sure that all requirements of legislation and Defence regulations have been identified and that appropriate arrangements are in place to make sure full compliance is achieved. This includes: a. directly applicable legislation for which the MOD has no available DED; or b. control: (1) all facilities used to conduct movement activity are operated in line with current regulations and standards; (2) site / facility safety management procedures are fully compliant with statutory and MOD standards; (3) safety responsibilities of line managers and supervisors are clearly defined. 3. LCAs **should** be reviewed, as a minimum, at the following stages: a. prior to first conduct of activity; b. during the review of any process or procedure; c. when modifications and / or changes are made to the construction and / or use of equipment used during M&T activity; d. when there are new or changes to legislation which apply retrospectively. 4. **Exemption Case Submissions**. Where non-compliances with legislation have been identified and an exemption is sought an application in the form of an ECS **should** be submitted to the DLSR Land Exemption Committee (LEC). Where an exemption or waiver from Defence M&T S&ER is sought, a case **should** be submitted to the MTSR via the appropriate Chain of Command. The ECS template (Internal MOD access only), on which exemption requests **should** be submitted, is available on the DLSR web page (Internal MOD access only). 5. The purpose of the exemption case is to justify, with evidence, the need to invoke an exemption and to demonstrate that all mitigations for each non-compliance have been identified and reduce the associated risks to levels that are ALARP. The exemption case **should** also capture the reasoning behind the arguments which justify the request for any exemption. 6. A single exemption case **should** be submitted for each exemption. The information used to build the exemption case **should** be drawn from all applicable safety cases and legislation compliance assessments. The exemption case **should** include a brief description of the activity; its operational requirement; and a reasoned argument for the exemption to cover the following issues:

a. the item of legislation from which exemption is being sought;

b. applicability of legislation (i.e., directly applicable to the activity or annotated as duty of care, if a disapplication is available);

c. the description of the non-compliance;

d. the technical reasons for non-compliance;

e. the operational requirement which justifies the non-compliance;

f. the risks posed by non-compliance;

g. the mitigating measures to be implemented to make sure that any residual risks are reduced to ALARP and demonstrate that procedures and standards in place of those required by legislation still offer equal protection as if the letter of the law was followed;

h. the perceived operational and financial impact of meeting the legislative requirements.

7. Exemption cases **should** be supported with evidence and co-signed (where appropriate) by the Delivery Team Leader and Duty Holder representative or capability sponsor.

8. Where an exemption is granted, a copy of the certificate **should** be retained for future reference. All stakeholders **should** be informed of any exemption, exemption certificate and all mitigation(s) required to manage the residual risk. A lack of implementation / maintenance regarding the exemption case mitigations will render the exemption case invalid.

9. Exemption cases **should** subsequently be reviewed and presented at the following stages:

a. when there are new or changes to legislation which apply retrospectively;

b. when existing exemptions are due to expire, and an exemption is still required.

10. The LEC **should** be notified if the method(s) of conducting the activity or the mitigation(s) upon which the exemption was granted is changed.

11. **Business cases**. Where a non-compliance has been identified and no exemptions are available to the MOD, a legislation business case **should** be submitted to the LEC to endorse the request for change in the law. The UK Government department responsible for the legislation from which an exemption is sought will then consider the business case. The business case template on which exemption requests **should** be submitted is available on the DLSR web page.

12. **As Low As Reasonably Practicable**. As soon as a hazard is identified within the M&T environment, which has the potential to cause harm, the owner of that activity **should**, to satisfy their duty of care, take immediate steps to reduce the risk posed to those who may be affected. With any risk, there will come a point where the safety benefit of reducing it further is negligible compared to the costs of doing so. It requires a balance to be made between costs and benefits. This balance **should** be biased towards safety risk reduction which may only cease when the cost is grossly disproportionate to any benefit achieved. The overall aim **should** be to provide an activity where all residual risk is reduced to a level that is ALARP.

	13. **Safety and Environmental Management Arrangements**. Those planning, managing, supporting, or undertaking M&T activity **should** have in place appropriate environmental management arrangements to make sure that the organisational structure, processes, procedures, and methodologies, that enable the direction and control of M&T activities, meet statutory requirements, Defence regulations and safety policy. 14. **Emergency arrangements**. All units and establishments **should** have site specific emergency response procedures to deal with M&T incidents and accidents. This also includes when at the home base, on exercise or on operations. As a minimum these **should** address: a. emergency contacts; b. spillage procedures; c. fire response; d. medical arrangements; e. evacuation procedures.
Further Guidance	JSP 815: Defence Safety Management System JSP 816: Defence Environmental Management System BS ISO 45001:2018: Occupational health and safety management systems BS ISO 14001: Environmental Management Systems JSP 375: Management of Health and Safety in Defence ISPM 15: Guidelines for Regulating Wood Packaging Material for International Trade

502 - Workplace Transport Safety

Regulation	Those providing, managing, supporting or undertaking any M&T activity on the Defence estate, or elsewhere, **shall** make sure that a safe system of work is applied so that any residual risk is reduced to a level that is ALARP.
Sub-clauses	1. **Workplace safety – vehicle movement**. Those responsible for the management, supervision, or control of vehicle movement on the Defence estate **shall** make sure that an appropriate safe system is in place to prevent accidents. 2. **Safe site (design)**. Those responsible for the management, supervision or control and use of the Defence estate **shall** make sure that appropriate measures are designed and incorporated to provide a safe place for individuals and vehicle use. 3. **Safe site (activity)**. Those responsible for the management, supervision, or control of any M&T activity on either the Defence estate or elsewhere, **shall** make sure that arrangements are in place to enable it to take place safely. 4. **Safe vehicles**. Those responsible for the use of vehicles on the Defence estate or elsewhere, **shall** make sure that all vehicles are suited to the purpose and environment they are being used. 5. **Contracted activities**. Those responsible for employing or managing contracted services **shall** make sure that such services are conducted safely, in line with legislation and with due regard to all safety and environmental responsibilities.
Provenance	Health and Safety at Work etc Act 1974. The Management of Health and Safety at Work Regulations 1999. A brief guide to the law INDG232 (rev2) HSE Books 2013. A guide to workplace transport safety HSG136 (3rd Ed). Those responsible for the conduct of workplace activities on the Defence estate, or elsewhere where Defence funded or controlled vehicles or equipment are used, **should** make sure such activities are conducted safely. Traffic routes **should** keep vehicles far enough away from doors or gates used by pedestrians, or from pedestrian routes that lead to or from them. Workplace traffic routes **should** be maintained and be suitable for the people and vehicles using them. Workplace transport refers to any MOD provided vehicle or piece of mobile equipment used in any work setting; be that on the Defence estate or a public place. It covers a wide range of vehicles, from cars, vans, LGVs and lift trucks, to less common vehicles such as tracked or armoured vehicles, plant vehicles, airfield or dockside vehicles and container movers. Vehicles moving on public roads are not usually classed as ‘workplace transport’, because road traffic laws cover any associated risks in more detail than general health and safety law. However, public roads are temporary workplaces, for example during roadside deliveries, road works or breakdown assistance, so health and safety law applies.

Acceptable Means of Compliance	1. **Workplace safety - vehicle movement**. On the Defence estate vehicle movement is an intrinsic part of day-to-day life. Steps **should** therefore be taken by those responsible for such activity to make sure that those operating or driving vehicles do so safely and with due consideration to others who may be affected by their actions and to legal requirements, such as those set out in the Highway Code or local variants. The CO / HOE **should** make sure that: a. a written health and safety policy for the site exists and is available to all personnel; b. risk assessments are prepared for every area of the workplace where an M&T activity is, or **could** be, expected to be conducted. The risk assessment **should** assess the potential risks to the health and safety of anyone affected by the activity, including employees and members of the public; c. suitable arrangements are in place for the effective planning, organisation, control, monitoring, and review of preventive and protective measures identified by the risk assessment; d. clear direction regarding the use of vehicles is provided; e. personal protective equipment is provided where there are risks to health and safety and which cannot be adequately controlled in other ways; f. information, instruction, training, and supervision is provided to make sure employees' health and safety at work. This **should** include the employment of a suitably trained road safety advisor; g. all workplace and work equipment are maintained in a safe condition; h. all employees and their representatives be consulted on health and safety matters; i. cooperate and coordinate where employers share a workplace. 2. **Private vehicles**. It is not uncommon for MOD personnel or their families to bring private vehicles onto the Defence estate. A form of unit / site standing orders **should** be issued to clarify minimum entry standards. This **should** include, but is not limited to, direction on: a. requirements for driver / vehicles to be legally compliant, for example: (1) valid driving licence (as appropriate where required); (2) vehicle insurance; (3) MOT; (4) tax; (5) vehicle condition. b. observance of Highway Code (or local equivalent overseas); c. observance of site road traffic signs and road markings; d. requirement to wear appropriate safety clothing, for example, Hi-Vis or cycle helmets; e. approved parking areas and associated control measures; f. action for non-compliance.

3. **Safe site (design)**. All workplaces on the Defence estate **should** be safe for the people and vehicles using it. A well-designed workplace that ensures vehicles and pedestrians are segregated **should** make vehicle related accidents less likely.

a. **Site Access**. Where site entrance and exit points are manned, suitable barriers or guardrails **should** be provided to protect employees from moving vehicles.

b. **Segregation**. The most effective way of ensuring pedestrians and vehicles move safely around a workplace is to provide separate pedestrian and vehicle traffic routes. Where possible, there **should** also be a one-way system as this will reduce the need for vehicles to reverse, helping pedestrians and drivers.

(1) Circumstances might mean that complete segregation is not possible, so consideration **should** be given to have clearly marked pedestrian and vehicle traffic routes, using measures such as barriers and signs. There **should** be separate entrances and exits for vehicles and pedestrians. Vision panels **should** be installed on doors that open onto vehicle traffic routes.

(2) Where pedestrian and vehicle traffic routes cross, they **should** be clearly marked using measures such as dropped kerbs, barriers, deterrent paving etc. to help direct pedestrians to the appropriate crossing points.

c. **Traffic routes**. The general principles for safe traffic routes **should** be considered; these are:

(1) routes are wide enough for the safe movement of the largest vehicle;

(2) road surfaces are suitable for the vehicles and pedestrians using them; for example, firm, even and properly drained. Outdoor traffic routes **should** be like those required for public roads;

(3) use of steep slopes be avoided;

(4) use of sharp corners and blind bends be avoided;

(5) keep routes clear of obstructions;

(6) make sure routes are clearly marked and signposted;

(7) make sure routes are properly maintained;

(8) some parts of a workplace, such as cast-iron columns, storage racking, pipework, and cables, are vulnerable to impact from vehicles and **should** be protected.

d. **Temporary traffic routes**. Temporary workplaces, such as construction and forestry sites, often have routes for vehicles and pedestrians that change as work progresses. Where possible, these routes **should** comply with the same basic standards described for permanent traffic routes.

e. **Visibility**. Visibility **should** be good enough for drivers to see hazards, and pedestrians to see vehicles. Adequate visibility for drivers is related to vehicle speed and the distance needed to stop or change direction safely. Mirrors **could** be considered where sharp or blind bends cannot be avoided.

f. **Speed reduction**. The reduction of vehicle speed is an essential element of workplace transport safety. Fixed traffic control measures such as speed humps, chicanes or rumble strips can reduce vehicle speed. It is important to select the most appropriate control as the wrong measure can increase risk by, for example, reducing vehicle stability. Speed limits **should** be used but they need to be appropriate, properly enforced and, where possible, consistent.

g. **Signs, signals and markings**. Signs for drivers and pedestrians in a workplace **should** be the same as those used on public roads. Wherever a suitable sign exists, they **should** be well positioned and kept clean. Where driving is likely to be carried out in the dark, illuminated, or reflective signs **should** be used. White road markings **should** be used to regulate traffic flow, and yellow markings **should** be used for parking. Wherever possible, such markings **should** be reflective and well maintained.

h. **Lighting**. Every transport workplace **should** have suitable and sufficient lighting, particularly in areas where:

(1) vehicles are required to manoeuvre, or pedestrians and vehicles circulate and cross;

(2) loading and unloading activities take place;

(3) care **should** be taken to make sure there are no sudden changes in lighting levels that may lead to a driver being dazzled.

4. **Safe site (activity)**.

a. **Reversing**. Many accidents involving vehicles on the Defence estate occur due to poor reversing. This results in considerable damage to vehicles, equipment, property, and injury to individuals. Consideration **should** therefore be given to reducing the requirement for vehicles to reverse. The adoption of a one-way system is one of the best ways to reduce the requirement to reverse. Where it is it not feasible to provide a one-way system, consideration **should** be given to establishing drive-through loading and unloading zones; parking areas with entrances and exits on either side; and suitable areas to allow vehicles to turn and drive forward. Where reversing cannot be avoided, the following measures **should** be considered:

(1) establish and clearly mark dedicated ‘reversing areas’ using longitudinal guides or white lines that are clearly signposted for both drivers and pedestrians;

(2) design or modify existing reversing areas, such as making them larger, to improve visibility for both drivers and pedestrians;

(3) exclude non-essential personnel from areas where vehicles are reversing;

(4) fit fixed mirrors or other visibility aids in the workplace to improve visibility around vehicles;

(5) consider installing reversing aids on vehicles, such as CCTV and reversing sensors;

(6) use a trained vehicle marshaller / banksman (signaller), but only when all other options have been exhausted.

b. **Signalling**. The role of banksmen (or signallers) is to guide drivers and make sure reversing areas are free of pedestrians. Where there is a requirement to manoeuvre vehicles, the use of banksmen **should** be considered. Banksmen **should**:

(1) be trained;

(2) always remain clearly visible to drivers;

(3) use a clear and recognised system of control signals;

(4) adopt a safe position throughout reversing operations;

(5) drivers are to be made aware that they are to stop immediately the vehicle marshaller / banksman goes out of view or their position is difficult to see.

c. **Parking areas**. Parking areas **should** be clearly indicated with separate parking areas for commercial and private vehicles. There **should** also be designated areas where commercial vehicles can be loaded and unloaded.

(1) When vehicles are parked, their parking brakes **should** always be applied. On most trailers disconnecting the emergency airline does not apply the trailer parking brake.

(2) Drivers **should** never leave a vehicle unattended without ensuring both the vehicle and the trailer are securely braked, the engine is off and the key to the vehicle has been removed.

(3) Where appropriate, trailer legs **should** be lowered to the ground.

d. **Coupling and uncoupling**. Drivers and those who have overall control of sites (site operators) **should** make sure that coupling and uncoupling areas are well lit, with firm and level surfaces.

e. **Training of drivers**. Drivers **should** be properly trained and have their work monitored by those responsible for operations to make sure they follow a safe system of work, involving the use of trailer and tractor unit parking brakes as appropriate.

f. **Loading and unloading**. To minimise the risks to those involved in loading and unloading, information **should** be provided to drivers on the nature of the load and how it **should** be properly loaded, secured, and unloaded. This information **should** accompany the load and be available to those involved in the loading, transportation and unloading activities. Before commencing loading and / or unloading activities the following **should** be considered:

(1) be clear of traffic and people not involved in the activity;

(2) be conducted on level ground;

(3) be segregated from other work areas;

(4) be clear of overhead cables, pipes, or other obstructions;

(5) be protected from bad weather where possible;

(6) vehicles and trailers have their brakes applied and all stabilisers are in the correct position prior to commencement;

(7) a safe place for drivers to wait;

(8) measures are introduced to prevent vehicles being driven off during either loading or unloading. These **should** include:

(a) traffic lights on loading bays;

(b) vehicle or trailer restraints;

(c) keeping keys in a safe place, such as with a ‘custody’ system.

g. **Tipping**. To reduce incidents where vehicles overturn during tipping operations, site operators and drivers **should** cooperate with each other and ensure:

(1) tipping is carried out on level ground;

(2) the tractor unit and trailer of articulated vehicles are aligned;

(3) wheel stops are used where possible;

(4) the tailgate is released and secured before tipping;

(5) no pedestrians are in the tipping area;

(6) the vehicle is not left unattended and cab doors are closed;

(7) there are no overhead obstacles, such as power lines;

(8) where a load sticks during tipping the following measures **should** be taken:

(a) the vehicle **should** not be driven to free the load (the body **should** be lowered and then raised);

(b) drivers **should** not climb onto the raised tipper section to free the load;

(c) mechanical vibratory discharge systems can help to free a stuck load.

h. **Overturning**. To minimise the potential for a vehicle to overturn, site operators and drivers **should** consider:

(1) vehicle suitability;

(2) the condition and slope of the surface;

(3) the operating speed of the vehicle;

(4) traffic routes that avoid sharp bends;

(5) the nature and positioning of the load;

(6) drivers **should** be monitored to make sure they follow safe systems of work; for example, they are wearing seat belts which **should** be used even if a roll-over protection system is fitted.

i. **Sheeting**. To prevent falls from height when sheeting, the following steps **should** be taken:

(1) avoid the need to work at height wherever possible, i.e., sheet from the ground;

(2) where work at height cannot be avoided, use measures such as platforms with barriers to prevent falls;

(3) if there is still a risk of a worker falling, use personal protective equipment to minimise both the distance and consequences in the event of a fall;

(4) at each step, always consider measures that protect everyone who is at risk (for example, barriers) before measures that only protect the individual (for example, fall-arrest systems);

(5) the walkways of working platforms **should** be made of non-slip material. Consult vehicle manufacturers before installing any vehicle-based sheeting system.

j. **Housekeeping**. Traffic routes **should** be free from obstructions and kept clean. Signage **should** be cleaned and maintained so that it remains visible and effective.

5. **Safe vehicles**. Vehicles used in the workplace **should** be suitable for the purpose for which they are used.

a. **Vehicle suitability**. Consideration **should** be given to the working environment in which vehicles are to be used and the suitability of that vehicle for the people using it.

(1) The Road Vehicles (Construction and Use) Regulations 1986 set the standard for the design and construction of vehicles used on public roads. Most vehicles used in the workplace **should** meet this standard but in some cases, there are specific supply standards for mobile plant (for examples, some lift trucks).

(2) Warning devices such as rotating beacons and reversing alarms **should** be fitted and conspicuous painting and marking can be used to make a vehicle stand out to pedestrians.

(3) Drivers **should** be able to see clearly around their vehicle, so consider measures such as CCTV and special mirrors where visibility is restricted.

(4) Vehicles **should** be designed so that, wherever possible, those who use them can do their work from the ground. Where people need to work at height on vehicles, suitable means of safe access onto and around vehicles **should** be provided. Consulting with those who will use a vehicle is a key part of developing its specification.

b. **Maintenance**. Vehicles **should** be maintained in good working order, so they remain mechanically sound, and any devices, such as flashing beacons, function properly. Vehicles such as lift trucks and those with tail lifts **should** be thoroughly examined by a competent person and reports kept:

(1) planned inspections are a vital part of preventative maintenance. These **should** include daily safety checks carried out by drivers and regular maintenance inspections based on time or mileage;

(2) drivers **should** be provided with a list of the daily checks to be signed off at the start of each shift. This **should** be monitored to make sure the checks are carried out properly.

c. **Safe driver**. Drivers **should** be competent to operate a vehicle safely and receive appropriate information, instruction, and training for the vehicle they use. It is particularly important that younger or less experienced drivers are closely monitored following their training to make sure they fulfil their duties safely.

d. **Competence**. Where drivers are employed their levels of ability **should** be proportionate to the role they are expected to perform. The following **should** be considered:

(1) new employees. Recruitment and placement procedures **should** be in place to make sure all new drivers are competent;

(2) existing employees. Make sure they have, and continue to have, the skills and experience needed to operate a vehicle safely. If the work changes, drivers **should** receive the necessary training to carry out the modified task safely.

e. **Training**. Training requirements will depend on an individual's experience and the training they have previously received. A risk assessment **should** help decide the level and amount of training a person requires.

(1) In general, newly recruited drivers have the greatest training needs but there **should** also be a programme of reassessment for more experienced drivers.

(2) It is important to assess the information provided by newly appointed drivers, particularly in relation to their training and experience. They **should** also be monitored on-site, to establish both their actual level of competence and any further training needs.

(3) A training record **should** be held for each driver. This will help to make sure the most appropriate person is allocated a particular task and identify those requiring refresher training.

f. **Fitness to operate**. No individual **should** drive or operate a vehicle on the Defence estate or a public road unless they are fit to do so. A person's fitness to drive / operate a vehicle **should** be judged on an individual basis but the aim is to match the requirements of the task with the fitness and abilities of the driver / operator. Detailed advice on medical standards of fitness to drive is published by the Drivers Medical Unit of the DVLA: https://www.gov.uk/driving-medical-conditions.

6. **Contracted activities**. Those holding safety or environmental responsibilities **should** make sure that all contracts regarding M&T activities contain appropriate clauses in respect of Defence operational policy, assurance, and inspection.

a. **Contracted staff**. Contracting tasks or activities outside the MOD does not discharge MOD's obligation to manage safety and environment protection within M&T activities. Those holding safety and environmental responsibilities **should** make sure suitable control measures of staff under contract to assure themselves that HS&EP continues to meet their requirements. This assurance **should** include the ability to understand and accept the safety and environmental case and authorise the residual risks identified within it.

b. **Contracted services**. The contractor has a duty to make sure that all workers are competent for the related task. Those holding safety and environmental responsibilities **should** take reasonable steps to make sure the competence of those carrying out work under their direct control, and those responsibilities and lines of communications **should** be properly established and clearly laid down. All associated risks of contracted M&T activities **should** be either 'Broadly Acceptable' or 'Tolerable' and ALARP.

c. **Contractor audit**. Those holding safety and environmental responsibilities **should** conduct regular audits and reviews of the HS&EP arrangements required by Defence and its contractors.

d. **Contractor management**. Where Defence contractors are employed as service providers for M&T activities, the following **should** be given consideration:

(1) a contractor may not enjoy the same level of legal exemptions afforded to the armed forces;

(2) those setting a contract **should** make sure the contractor is operating legally and is compliant with legislation.

e. Those responsible for setting commercial contracts **should** define operating standards and / or key performance requirements for contracted staff to conduct M&T activities, in particular:

(1) **Road**. Where a contractor operates vehicles that are more than 3.5-tonnes MAM, or carry more than eight passengers, they **should** hold an operator's licence. The contractor is responsible for meeting all terms and conditions of the licence set by the relevant Traffic Commissioner;

(2) **Rail operations**. Contractor management reporting **should** include meaningful indicators of contractors' performance against key performance indicators.

7. **Other considerations**. In addition to the key areas of site, vehicle and driver safety, the following areas **should** be taken into consideration when managing workplace transport safety:

a. **Consultation with employees**. There is a legal requirement to consult with employees, in good time, on health and safety matters. In workplaces where a trade union is recognised, this will be through union health and safety representatives. In non-unionised workplaces, consultation **should** be either directly or through other elected representatives. Consultation involves employers not only giving information to employees but also listening to them and taking account of what they say before making health and safety decisions.

b. **Shared premises**. Employers, employees and the self-employed who share a workplace **should** cooperate and communicate with each other on the site.

(1) Site operators **should** take responsibility for coordinating any health and safety measures and ensuring everyone on-site understands their health and safety responsibilities and the site rules.

(2) Vehicles on which employees of more than one company are at work are considered shared workplaces; for example, where contracted employees are loading a trailer owned by a distribution company.

(3) Whenever this occurs, those involved **should** be fully aware of their roles and responsibilities before any activity is undertaken. Clear written instructions and information **should** be available to those involved.

c. **Public access**. The public may not have access to MOD workplaces; however, MOD personnel, families or contracted workers may need to move about the Defence estate where vehicles operate. As they may generally be unfamiliar with the workplace, they **should** be kept away from any work activities wherever possible. Where this is not possible, suitable traffic management arrangements **should** be put in place to:

(1) control pedestrian access;

(2) separate people from vehicles;

(3) control vehicle movements;

(4) monitor activities on-site.

d. **Contractors**. Employers and the contractors they use have duties under health and safety law. When using contractors (for example, visiting drivers and agency staff), the following **should** be considered:

(1) consider skills, knowledge and experience;

(2) provide them with relevant information, such as vehicle and pedestrian traffic routes, speed limits, designated loading, unloading, and parking areas and site rules. Consider foreign drivers, for example, provide information in other languages;

(3) liaise with them to consider the risks from each other's work activities and agree how the work will be undertaken;

(4) monitor them to make sure they work safely and comply with the site rules;

(5) set up any arrangements for cooperation and coordination.

(6) make sure action is taken regarding unsafe operations.

503 - Establishing a Safe System of Work

Regulation	Those planning, managing, supporting, or undertaking M&T activity **shall** make sure they document, implement, and maintain safe systems of work so that the residual risks posed have been reduced to a level that is ALARP.
Sub-Clauses	1. **Safety management arrangements**. Those planning, managing, supporting, or undertaking M&T activity **shall** have in place arrangements to make sure that those planning, managing, supporting, or undertaking M&T activity document, maintain and use safe systems. 2. **M&T interfaces**. Those responsible for the planning, managing, supporting, or undertaking M&T activity, which impacts upon or has potential to affect any other activity, **shall** make sure that all interfaces are identified, assessed, and managed effectively. 3. **Risk Assessment**. Those planning, managing, supporting, or undertaking M&T activities **shall** complete a risk assessment for each activity to make sure that any residual risk has been reduced to a level that is ALARP. The risk assessment **shall** be recorded with reviews conducted as appropriate. 4. **Contracted activity**. Where an M&T activity is to be contracted those responsible for the commercial letting **shall** make sure the contractor is aware of how legal DEDs may apply and take appropriate steps to ensure compliance.
Provenance	Health & Safety at Work Act 1974. The Management of Health and Safety at Work Regulations 1999. Provision and Use of Work Equipment Regulations (PUWER) 1998. As a key enabler to the effective delivery of operational capability, robust safety management ensures a systematic, pro-active, and auditable approach to the management of M&T risks. Central to safety management is the intellectual activity and decision making, enabled by the necessary organisational structures, accountabilities, policies, and procedures. M&T covers a wide and varied range of functional disciplines that often require Defence organisation cooperation, with tasks routinely involving military activity interfacing directly with commercial operations and the public. The conduct of M&T functions cross multiple regulatory boundaries and include areas of activity which present unique or increased levels of risk that have previously resulted in Crown Censure. These regulations provide clarification of legislative and Defence requirements by setting a set of coherent standards to make sure the safe conduct of Defence organisation M&T activity and prevent the export of risk into the public domain.
Acceptable Means of Compliance	1. **Safety management arrangements**. Those planning, managing, supporting, or undertaking M&T activity **should** make sure that safety management arrangements are in place to provide the organisational structure, processes, procedures, and methodologies that enable the direction and control of M&T activities necessary to meet statutory requirements, MOD policy and Defence regulations.

	2. Those responsible for the management and control of M&T activities **should** have in place arrangements to make sure the health, safety and welfare of all workers and visitors. Arrangements **should** provide a safe environment that eliminate or reduce risks associated with M&T activity and as a minimum include: a. an assessment of risk; b. preventative and proactive measures; c. periodic review and monitoring; d. maintenance of appropriate method statements for each M&T activity undertaken. 3. **M&T interfaces**. M&T covers a wide and varied range of functional disciplines that often require Defence organisation cooperation, with tasks routinely involving military activity interfacing directly with commercial operations. 4. The conduct of M&T functions crosses multiple regulatory boundaries. M&T procedures often have Defence organisation or MOD-commercial interfaces. Those responsible for the planning, managing, supporting, or undertaking M&T activity, which impacts upon or has potential to affect any other activity or organisation, **should** have in place arrangements to make sure that all interfaces are identified, assessed, documented, and managed effectively. 5. **Risk Assessment**. The residual risks associated with M&T activity **should** be tolerable or broadly acceptable, and ALARP. To demonstrate that the residual risks are tolerable or broadly acceptable, and ALARP, a risk management process **should** be followed. This process **should** be documented and demonstrate that a suitable and sufficient risk management process has been followed which is proportionate to the perceived level of risk. 6. A suitable and sufficient risk assessment **should** be undertaken for each M&T activity to determine the level of risk. This is determined by combining the frequency (likelihood of occurrence) of an accident and the consequence (severity of harm) of that accident. The qualitative judgement can be informed by quantitative data to determine the appropriate risk classification. It is likely that a more quantitative approach will be required where an activity poses significant risk. The risk assessment **should** be based upon a risk tolerability matrix which will be tailored to the system and have justification supporting its structure. This matrix provides the framework for the prioritisation of risk and accident according to its tolerability. The risk assessment **should** include reference to: a. the safe conduct of M&T activities; b. the management of M&T safety; c. defining the roles and responsibilities of those undertaking M&T activity; d. defining how the evidence of M&T inherent safety **should** be documented in any Safety and Environmental Case and its validity maintained. 7. When conducting any M&T activity personnel **should** consider: a. the management of risk to create a safe working environment;

b. appropriate adjustments to procedures and working practices to consider the working environment, complexity of the task and competence of the personnel involved;

c. the potential for injury to persons, damage to the environment and possible legal consequences that might result from actions conducted during the activity.

8. Stakeholders **should** identify hazards, assess the risks, and implement effective control measures to minimise or remove risks. Consideration **should** be given to all those taking part in the activity, any visitors and the general public.

9. Any change within the working environment has the potential to introduce new hazards. Key stakeholders are to make sure that the correct management process (i.e., risk assessment, safe systems of work etc.) is applied to make sure proper control of any changes to manning, organisation, policies, standards, procedures, technical specifications, and the introduction of new equipment.

10. The divergent and challenging nature of M&T activities gives rise to several hazards at varying degrees of risk. Where a formal generic risk assessment exists for a M&T activity, the person in charge of that activity **should** make sure that a dynamic risk assessment is carried out prior to the commencement of any activity.

11. **As Low As Reasonably Practicable (ALARP)**. As soon as a hazard is identified within the M&T environment, which has the potential to cause harm, the owner of that activity **should**, to satisfy their duty of care, take immediate steps to reduce the risk posed to those who may be affected. With any risk, there will come a point where the safety benefit of reducing it further is negligible compared to the costs of doing so. It requires a balance to be made between costs and benefits. This balance **should** be biased towards safety; risk reduction may only cease when the cost is grossly disproportionate to any benefit achieved. The overall aim **should** be to provide an activity where all residual risk is reduced to a level that is ALARP.

12. **Contracted activity**. Those planning, managing, supporting, or undertaking M&T activity, including commercial providers, **should** have arrangements in place to make sure that all contracts regarding M&T activities contain appropriate clauses in respect of Defence regulatory requirements.

13. **Legal exemptions for contractors**. Where Defence contractors are employed as service providers for M&T activities, the contractor may not enjoy the same level of legal exemptions afforded to the armed forces. As such an LCA **should** be conducted.

14. **Contracted personnel**. Contracting tasks or activities outside the MOD does not discharge MOD's obligation to manage HS&EP within M&T activities. Those planning, managing, supporting, or undertaking M&T activities **should** have suitable arrangements in place to make sure that personnel under contract are made aware of and comply with Defence safety requirements.

	15. **Contracted services**. The contractor has a duty to make sure that all workers are competent for the related task. Those planning, managing, supporting, or undertaking M&T activities **should** take reasonable steps to make sure the competence of those carrying out work under their direct control and those responsibilities and lines of communications **should** be properly established and clearly laid down. 16. **Contractor management**. Those planning, managing, supporting, or undertaking M&T activities, including commercial providers, **should** have appropriate arrangements in place to provide assurance for contracted activities. Consideration **should** include: a. audit and review of the contractor performance and delivery against Defence requirements; b. defined operating standards and / or key performance requirements for contracted staff to conduct M&T activities; c. compliance with legislative and Defence requirements.
Further Guidance	JSP 815: Defence Safety Management System JSP 816: Defence Environmental Management System JSP 375: Management of Health and Safety in Defence

504 - Movement Processing

Regulation	Those responsible for the management, control or supervision of Defence movement and transport activities **shall** have robust systems in place to make sure that the risk of carriage of unauthorised DG or prohibited items on transport platforms is ALARP.
Sub-clause	1. **Provision of unauthorised DG and prohibited items information**. Those responsible for planning, managing or supervising personnel involved in the preparation of cargo or passengers travelling on transport platforms **shall** provide clear information about unauthorised DG and prohibited items for carriage on their person, in baggage or as cargo. 2. **Movement process areas and access control**. Those responsible for planning, managing or supervising movement processing activity **shall** have control measures in place to prevent unauthorised access to processed passengers, baggage, or cargo. 3. **Movement checks**. Those responsible for planning, managing or supervising movement processing activities **shall** make sure a system is in place to prevent the carriage of unauthorised DG and prohibited items. 4. **Transit movement of processed passengers, baggage and cargo**. Those responsible for planning, managing, and supervising the movement of processed passengers, baggage or cargo **shall** make sure that control measures are in place to prevent unauthorised access during transit journeys.
Provenance	Road - The Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR). Rail - Regulations Concerning the International Carriage of Dangerous Goods by Rail (RID). Sea - International Maritime Dangerous Goods Code (IMDG Code). Air - ICAO TIs for the Safe Transport of Dangerous Goods by Air . Air - Supplement to ICAO TIs for the Safe Transport of Dangerous Goods. Air - Annex 18 to the Convention on International Civil Aviation Organization - The Safe Transport of Dangerous Goods by Air. Air - International Air Transport Association, Dangerous Goods Regulations (IATA DGRs). Channel Tunnel - Channel Tunnel ADR Regulated Goods - The Practical Guide. Health and Safety at Work etc Act 1974. The Management of Health and Safety at Work Regulations 1999 AP 1990. Defence has a requirement to move personnel and equipment world-wide using various modes of transport. Equipment may be carried by individuals, in personal baggage or as cargo (freight and vehicles). In certain cases, this is controlled under the carriage of DG regulations and therefore requires additional control measures. In other cases, items may be considered prohibited goods, the carriage of which may present a danger to the safety of transport platforms or a reputational risk to Defence.

Acceptable Means of Compliance	1. **Provision of unauthorised DG and prohibited items information**. All personnel involved in the preparation of cargo and all passengers travelling on transport platforms **should** be provided with information about unauthorised DG and prohibited items for carriage on their person, in baggage or cargo. This information **should** cover all legs of the journey and be provided before movement processing. 2. **Movement process areas and access control**. A movement process area is a designated area where movements activity is conducted to prepare passengers, baggage, and cargo prior to loading onto a transport platform. Movement process areas **should** have access control measures in place, which **should** include: a. **Passenger, baggage and cargo processing areas**. Systems **should** be in place to maintain the segregation of unprocessed and processed passengers, baggage and cargo. Access to the processed area **should** be supervised and restricted to authorised personnel only; b. **Holding and storage areas**. Areas used for the holding and storage of processed baggage and cargo **should** be access controlled and restricted to authorised personnel only. 3. **Movement checks**. A percentage check of passengers, baggage, and cargo **should** be considered prior to loading to the transport platform to prevent the carriage of unauthorised DG and prohibited items. Systems **should** be in place that allow the following: a. all passengers **should** be identified and authorised for travel; b. all baggage and cargo **should** be identifiable and be clearly marked/labelled. 4. **Transit movement of processed passengers, baggage and cargo**. Controls **should** be in place to make sure that all processed passengers, baggage, and cargo remain free from unauthorised access, which **should** include: a. **Baggage and cargo in transit**. Baggage and cargo **should** be supervised and secured to prevent unauthorised access. 5. **Passengers in transit**. Systems **should** be in place to prevent access to DG and prohibited items by passengers that have been processed for travel. Passengers leaving controlled areas **should** be re-processed on returning.
Further Guidance	JSP 815: Defence Safety Management System JSP 816: Defence Environmental Management System M&T S&ER 506: Specific Requirements for the Carriage of Dangerous Goods, Schedule 1 The Dangerous Goods Manual JSP 375 Management of Health and Safety in Defence JSP 800 Vol 2 Passenger Travel Instructions (Internal MOD access only) JSP 800 Vol 3 Movement of Materiel (Internal MOD access only) JSP 440 Defence Manual of Security (Internal MOD access only) AP 1990 Manual of Protective Security for Aircraft Systems and Air Transportation Security DAP 3150 RAF Manual of Movements and Mechanical Transport Instructions

505 - Defence Driving Licence Acquisition and Associated Training

Regulation	Those responsible for the management, effective control and supervision of the Defence driving licence acquisition processes and associated training, **shall** make sure that all activity is conducted in line with Sub-Clause 1 and Schedules 1 to 9 of this regulation.
Sub-clause	1. **Nomination of an Accountable Person**. Where a Defence organisation, has a requirement to conduct driving licence acquisition training, testing or driver training as defined in Schedule 9 of this regulation, it **shall** nominate an Accountable Person. The Accountable Person **shall** be responsible for the general direction, oversight, management and assurance of its driver training and associated Defence Licensing and Testing Authority (DELTA) processes and all related activities set by the Schedules of this regulation.
Schedules	Schedule 1: Driver Licence Acquisition Training Schedule 2: General DELTA Policy Schedule 3 Driving Instructors Schedule 4: Theory Test Procedures Schedule 5: Practical Test Procedures Schedule 6: Defence Driving Examiners (DDE) Schedule 7: Use of DELTA Management Information System and Business Objects Schedule 8: DELTA Operating Criteria and Assurance Schedule 9: Management and Control of Driver Training The Schedules are contained in the Driver Licence Acquisition and Associated Training Manual. DLSR Regulation 505 Manual (Internal MOD access only).
Provenance	EU Driving Licences Directives. Road Traffic Act 1988. Road Traffic (Northern Ireland) Order 1981. Motor Vehicles (Driving Licences) Regulations 1999. Motor Vehicles (Driving Licences) Regulations (Northern Ireland) 1996. To maintain operational capability, Defence has several DEDs from UK legislation. The Motor Vehicle (Driving Licence) Regulations 1999 authorises the SofS for Defence to manage driving licence applications, driver training and testing of MOD Crown Servants. To ensure that standards are maintained, legislative requirements are used as the baseline for developing Defence requirements. This regulation outlines Defence specific requirements to compliment legislation while putting in place appropriate standards to ensure that DEDs are appropriately managed, and that suitable controls are in place to manage this activity.

Acceptable Means of Compliance	1. Nomination of an Accountable Person. The nominated Accountable Person is responsible for setting and maintaining standards and assuring compliance, where appropriate, in respect of all elements of the licence acquisition process and for the conduct of all driver training for that Defence organisation. This **shall** include, but is not limited to: a. DELTA office staffing and process requirements; b. the conduct of driver training and testing; c. provision of a safe system of work; d. nomination of relevant Training Requirement Authorities and Training Delivery Authorities associated with all aspects of driver training as defined in Schedule 9 to this regulation; e. the use of areas on the Defence estate or elsewhere, for driver training; f. oversight of capability sponsor responsibilities; g. assurance of user unit and instructor activity; h. vehicle suitability and associated use.
Further Guidance	JSP 815: Defence Safety Management System JSP 816: Defence Environmental Management System EU Driving Licences Directives Road Traffic Act 1988 Road Traffic (Northern Ireland) Order 1981 Motor Vehicles (Driving Licences) Regulations 1999 Motor Vehicles (Driving Licences) Regulations (Northern Ireland) 1996 Memorandum of Understanding (MOU) MOD / DVSA dated Nov 19. MOU MOD / Driver and Vehicle Licensing Agency (DVLA) dated Mar 23. MOU MOD / Driver and Vehicle Agency Northern Ireland (DVA NI) dated Oct 17.

506 - Specific Requirements for the Carriage of Dangerous Goods

Regulation	Those planning, managing, supporting, or undertaking M&T activities **shall** make sure that arrangements are in place for the safe preparation, consignment and carriage of articles, equipment or substances classified as Dangerous Goods (DG) in line with Schedule 1 of this regulation.
Schedule	Schedule 1: The Dangerous Goods Manual (See MTSR Website)
Provenance	Road - The Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR). Rail - Regulations Concerning the International Carriage of Dangerous Goods by Rail (RID). Sea - International Maritime Dangerous Goods Code (IMDG Code). Air - International Civil Aviation Organisation Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO TIs). Air - Supplement to ICAO TIs for the Safe Transport of Dangerous Goods. Air - Annex 18 to the Convention on International Civil Aviation Organization - The Safe Transport of Dangerous Goods by Air. Air - International Air Transport Association, Dangerous Goods Regulations (IATA DGRs). Channel Tunnel - Channel Tunnel ADR Regulated Goods - The Practical Guide. The UK has DG legislation for each of the modes of transport that provide the requirement to comply with the modal regulations and any national variations to them. It is a Defence requirement that DG **shall** be transported in compliance with UK and international regulations. The Defence inventory and capability requirements necessitate that MOD stores, handles and transports a vast amount of goods that have been classified as DG for transport, some of which are unique to the military environment. This regulation outlines Defence specific requirements to compliment legislation while putting in place Defence regulation to make sure that DEDs are appropriately managed, and that Defence has suitable controls in place for this high hazard activity.
Further Guidance	JSP 815: Defence Safety Management System JSP 816: Defence Environmental Management System UN Recommendations on the Transport of Dangerous Goods UN Manual of Tests and Criteria CAP 483 - Training in the Safety Transport of Dangerous Goods by Air CAP 642 - Airside Safety Management MAA001 - Military Aviation Authority Regulatory Policy Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods JSP 392 - Radiation Safety Handbook.

	DSA 03 - OME Part 2 - In-Service and Operational Safety Management of OME (Internal MOD access only) JSP 515 – The MOD Hazardous Stores Information System (Internal MOD access only) JSP 762 - Weapons and Munitions Through Life Capability (Internal MOD access only) DSA03-DLSR-LSSR-Equipment Standards Regulatory Schedule (ESRS) (Internal MOD access only) AP 101A - 1102/3-1 Construction Procedures for Aerial Delivery Loads Defence Logistics Framework NATO Standardisation Agreement (STANAG) 4441 and AMovP-6 - Allied Multi-Modal Transportation of Dangerous Goods Directive PGA 1974/37 Health and Safety at Work etc. Act 1974 Directive 2008/68/EC of the European Parliament and of the Council on the Inland Transport of Dangerous Goods. SI 2016/765 Air Navigation Order 2016 SI 2002/2786 Civil Aviation - The Air Navigation (Dangerous Goods) Regulations 2002 SI 2009/1348 The Carriage of Dangerous Goods and Use of Transportable Pressure Receptacles Regulations 2009 (As Amended) SR 2010/59 The Carriage of Explosives Regulations (Northern Ireland) 2010 (CER(NI)) SR 2010/160 The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations (Northern Ireland) 2010 (CDG(NI)) SI 1997/2367 The Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations 1997 SI 2016/721 The Dangerous Goods in Harbour Areas Regulations 2016 (DGHAR) SR 1991/9 Dangerous Substances in Harbour Areas Regulations (Northern Ireland) 1991 SR 1995/87 The Explosives in Harbour Areas Regulations (Northern Ireland) 1995 SI 2005/894 The Hazardous Waste (England and Wales) Regulations 2005 SI 2005/1806 (W.138) The Hazardous Waste (Wales) Regulations 2005 SR 2005/300 The Hazardous Waste Regulations (Northern Ireland) 2005 SI 2004/112 The Special Waste Amendment (Scotland) Regulations 2004 SI 2017/325 The Freight Containers (Safety Convention) Regulations 2017 SR 1992/2 The Freight Containers (Safety Convention) Regulations (Northern Ireland) 1992

507 - M&T Activity Incident, Accident and Non-Compliance Reporting

Regulation	Those responsible for the management, support and conduct of M&T activity **shall** make sure that all accidents, incidents, and non-compliances are reported, recorded, and appropriately investigated in line with the Sub-clauses and Schedule 1 of this regulation.
Sub-clauses	1. **Accident, incident and non-compliance reporting**. All Defence organisations **shall** make sure that arrangements are in place to record, document and investigate M&T activity related accidents, incidents and non-compliances. 2. **Reporting of M&T non-compliances**. Accidents, incidents, near-misses, and non-compliances involving M&T activity **shall** be reported to MTSR. 3. **Reporting of vehicle related collisions**. All MOD vehicle[1] related collisions **shall** be reported in line with the requirements of Schedule 1 to this regulation.
Schedule	Schedule 1: Vehicle Collision Reporting. (Contained in the DLSR Regulation 507 Manual (Internal MOD access only).
Provenance	Road Traffic Act 1988. Health and Safety at Work etc. Act 1974. The Management of Health and Safety at Work Regulations 1999. Accurate and timely occurrence reporting, and effective investigation is fundamental to identifying M&T safety risks and delivering effective mitigation.
Acceptable Means of Compliance	1. **Accident, incident and non-compliance reporting.** Wherever an incident, or instance of non-compliance involving M&T activity occurs, it **should** be reported, recorded, and investigated. 2. Each Defence organisation **should** monitor incident and non-compliance reporting for trends and, where required, take appropriate remedial action to prevent recurrence. 3. Non-compliance reports and learning accounts **should** be made available to provide an informed, collective agreement across the Defence so that future episodes of non-compliance **could** be addressed and lessons learned. 4. Defence authorities, commanders and those responsible for the management, supervision, and control of activities at all levels **should** monitor non-compliance, analyse trends, identify causes, and make sure that learning accounts are implemented. They **should** also put in place measures to review and amend procedures / processes to prevent further incidents or non-compliances and make sure a culture of continuous improvement is developed and maintained.

[1] Any mechanically, electrically or hybrid propelled or animal-drawn vehicle, trailer or towed equipment (a prime mover and its trailer(s) are considered as one vehicle), a cycle, hand cart or animal, which is owned, controlled, leased, hired or used by the MOD. It covers a wide range of vehicles, from cars, vans, Large Goods Vehicle (LGVs) and Passenger Carrying Vehicle (PCVs) (such as those provided as part of a 'white fleet' contract, to less common vehicles such as tracked or armoured vehicles, plant vehicles, airfield or dockside vehicles, lift trucks and container movers. This list is to illustrate only and is not considered exhaustive.

	5. **Reporting of unsafe practice**. Personnel employed in the process of loading, restraint and unloading materiel are responsible for informing the Person in Charge (PIC) or loading supervisor of any unsafe practice that they observe or anticipate. The PIC or loading supervisor **should** subsequently react to such concerns and take the appropriate action to make sure such safety concerns are addressed, rectified, and reported through the chain of command to prevent any reoccurrence. 6. **Non-compliance**: a. individuals, organisations, or any competent person involved in an M&T activity **should** identify, correct (where possible), and report all incidents of non-compliance to prevent injuries or fatalities, damage to equipment, property or the environment; b. Defence organisations **should** make sure that all non-compliance incidents are investigated as appropriate, to ascertain the cause / causes of the non-compliance. They **should** monitor all activity, including the acquisition process, for non-compliances. Procedures **should** include the analysis of trends, identification of causes, implementation of learning accounts and reviews to make sure procedures / processes are in place to prevent further non-compliance. Arrangements **should** be in place to provide and maintain a culture of continuous improvement; c. the Defence organisations **should** inform MTSR immediately of any accident / incidents occurring during conduct of M&T activity which is subject to external investigation (for example, Health and Safety Executive (HSE)) and provide copies of any prohibition notice or improvement notice issued. 7. Defence organisations **should** make sure that non-compliance reports and learning accounts are used to make sure that an informed, collective agreement is reached with all stakeholders (pan-Defence) with regards to how future episodes of non-compliance are addressed and lessons learned. 8. **Reporting of M&T non-compliances**. Accidents, incidents, near-misses and regulatory non-compliances involving M&T activity, less vehicle related collisions, **should** be reported to MTSR using the FMov 999 process via the MTSR website application data base. 9. **Reporting of vehicle related collisions**. All MOD vehicle related collisions are to be reported in line with the requirements of Schedule 1 to this regulation.
Further Guidance	JSP 815: Defence Safety Management System JSP 816: Defence Environmental Management System DIN 2023DIN06-008: Claims and insurance provisions for the use of MOD provided vehicles (Internal MOD access only)

508 - Hazardous Stores Information

Regulation	Those responsible for the procurement of hazardous substances (or equipment containing hazardous substances, mixtures, or articles), **shall** make sure that suitable arrangements are in place so that sufficient, current, and appropriate hazardous information and safety data is made available to the user community.
Sub-clauses	a. **Provision of safety information**. Those responsible for the procurement, management, supervision and control of hazardous substances, mixtures and articles **shall** make sure that appropriate hazard data, Safety Data Sheets (SDS) and safety information on proposed control measures is made available at all stages of the procurement, storage, distribution, use and disposal cycles. b. **Hazardous Stores Information System (HSIS)**. The designated Defence delivery agent, **shall** maintain a system which provides readily accessible hazardous stores and safety information for all products that are designated as, or contain, hazardous substances, mixtures, and articles.
Provenance	UK Registration, Evaluation, Authorisation & restriction of Chemicals (REACH) Regulations 2019. Health and Safety at Work etc. Act 1974. The Management of Health and Safety at Work Regulations 1999. SDS provide information on chemical products helping users of those chemicals to make a risk assessment. They describe the hazards the chemical presents and give information regarding handling, storage, and emergency measures in case of accident. Defence **should** provide sufficient safety information to make sure that all equipment and stores procured are safe to use and that all risks have been identified, classified, and mitigated appropriately. The non-availability of an SDS **could** lead to a serious accident, incident or non-compliance with regulations governing use, storage, transport, environmental impact, and disposal.
Acceptable Means of Compliance	1. **Provision of safety information**. Those responsible for the procurement of hazardous substances (or equipment which contains hazardous substances, mixtures, or articles) **should** make sure that only those with the lowest level of hazardous risk reasonably practicable are procured. 2. **Whole life management**. Those responsible for whole life management **should** consider handling, storage, transport, and disposal requirements throughout the life of hazardous substances, mixtures, and articles. 3. **Safety information**. Commercial providers and procurement authorities **should** make sure that the appropriate manufacturers or supplier's SDS is provided to the equipment management authorities at the earliest opportunity, but in all cases the data **should** be available no later than stock receipt. 4. Those responsible for the supply of hazardous substances, mixtures and articles **should** provide current and adequate safety information. The SDS **should** be compliant with all legislative and Defence requirements and be:

a. made available to recipients and those handling the product at least 30-days before receipt and not later than when the stock arrives;

b. provided in line with Registration, Evaluation, Authorisation, and restriction of Chemicals (REACH) requirements;

c. readily available to anyone involved in handling hazardous substances, mixtures, and articles;

d. updated by suppliers when changes to the product or regulations are made.

5. Those responsible for whole life management **should** check the quality, validity, and accuracy of SDS prior to issue.

6. **Hazardous Stores Information System**. The Defence Authority responsible for the acquisition and through life cycle of Defence stores and equipment **should** maintain a single Defence system that makes hazardous stores safety information readily available for all products that are designated as, or contain, hazardous substances, mixtures, and articles. They **should**:

a. make sure that SDS received from equipment, commercial and base organisations are processed as soon as is reasonably practicable and not later than 48-hours after receipt;

b. correlate the SDS with all applicable stores information management systems to make sure the correct hazard classification is registered suitable, and that the system holds and provides all relevant information necessary for the issue of SDS;

c. check SDS for accuracy prior to uploading to the delivery system;

d. review each SDS held on the system biennially;

e. clearly identify the revision date on the SDS to make sure the provision of updated change lists to enable users to review their risk assessments.

7. In addition to the biennial review, there is a requirement for SDS to updated when:

a. new hazard information or information that may affect the risk management measures becomes available;

b. a substance or mixture is re-classified according to the Classification, Labelling and Packaging Regulation;

c. an authorisation under REACH is granted or refused;

d. a restriction under REACH has been imposed.

8. **Storage and distribution**. Hazardous substances, mixtures and articles **should** not be distributed, stored, handled, or issued to the end user unless a current supplier's SDS is readily available.

9. Hazardous substances, mixtures and articles **should** not be accepted unless a current suppliers SDS is readily available.

10. Those responsible for the receipt, handling, storage and use of hazardous substances, mixtures and articles **should** perform checks to make sure that the identification and classification details provided on the stock correlate with the information provided on the SDS.

	11. Where an SDS is obtained directly from suppliers of hazardous substances, mixtures and articles, the recipient **should** forward a copy to the HSIS database management authority as soon as possible. 12. Those responsible for the procurement of hazardous substances, mixtures and articles **should** make sure that the identification and classification details on the product correlate with that recorded on the stores information management systems. 13. Where stocks are received without a current SDS being readily available within the supply chain, the stock **should** be quarantined and a non-compliance report **should** be submitted against the procurement authority.
Further Guidance	JSP 815: Defence Safety Management System JSP 816: Defence Environmental Management System JSP 375, Chapter 11 Management of Hazardous Substances. Health and Safety at Work etc. Act 1974, Chapter 37, Part 1 Paragraphs 2 and 6 place duties on employers to provide information, instruction, supervision, and training. Registration, Evaluation, Authorisation & restriction of Chemicals, Article 31 mandates the requirement for provision and standards for SDS. JSP 515 – The MOD Hazardous Stores Information System (HSIS) (Internal MOD access only) HSE: https://www.hse.gov.uk MTSR Non-compliance e-report (Internal MOD access only)

509 - Control and Use of MOD Emergency Vehicles

Regulation	Those responsible for the operational control, tasking, allocation, and use of MOD provided vehicles **shall** make sure that only those classified as emergency vehicles are permitted to be operated under emergency (blue light) conditions in line with Schedule 1 of this regulation.
Schedule	Schedule 1: Control and Use of MOD Emergency Vehicles (DLSR Regulation 509 Manual (Internal MOD access only).
Provenance	Road Traffic Regulations Act 1984 (c. 27). Road Safety Act 2006 (c. 49). Road Vehicles Lighting Regulations 1989 (SI No. 1796). Regulation of Investigatory Powers Act 2000 (C. 23). Traffic Signs Regulations and General Directions 2016. Road Vehicles (Construction and Use) Regulations 1986 (SI No. 1078). Zebra, Pelican and Puffin Pedestrian Crossing Regulations and General Directions 1997 (SI No. 2400). The Road Traffic Exemptions Special Forces)(Variation and Amendment) Regulations 2011 (SI 935). The Motorways Traffic (England and Wales) Regulations 1982 (SI No. 1163). The Motorways Traffic (Scotland) Regulations 1995 (SI 27) Health and Safety at Work etc. Act 1974. The Management of Health and Safety at Work Regulations 1999. Legislation regarding driving a vehicle under blue light conditions is complex and subject to a range of Acts, regulations, Statutory Instruments, and various authorisations, and DEDs. There is no single piece of legislation which covers all aspects of emergency vehicle driving, but there is a general requirement under the Health and Safety at Work Act 1974 to make sure that individuals are suitably trained to operate the equipment (vehicles) they are required to use. In outline, UK legislation applies to the various police, ambulance and fire authorities or services but this is not exclusively the case. For the MOD several inclusions exist and these are applied to different users with diverse purposes. Those required to drive vehicles under emergency conditions need to be suitably trained and understand that such use **must** be proportionate, necessary, and appropriate. Ultimately, the driver is responsible for the vehicle and **should** be able to justify its use. A driver is liable for prosecution for dangerous or careless driving if found guilty of causing an accident.
Further Guidance	JSP 815: Defence Safety Management System JSP 816: Defence Environmental Management System The Highway Code - as revised (2022)– ISBN 978-0-11-5539954

	Roadcraft: The Police Driver's Handbook – ISBN 978-0-11-7083783 The Police Rider's Handbook – ISBN 978-0-11-7083790 The Health and Safety at Work Act 1974. The Motor Vehicles (Wearing of Seat Belt) Regulations 1993. The Road Traffic Regulation (Northern Ireland) Order 1997. The Road Traffic (Exemptions from Speed Limits) Regulations 2016 (in Draft). The Road Traffic (Training Courses for Driving Vehicles at High Speed) Regulations 2016 (In Draft).

510 - Load Safety and Load Restraint

Regulation	Those planning, managing, supporting, or undertaking the loading of materiel **shall** make sure that arrangements are in place for the safe loading, restraint, transportation and unloading is conducted in line with the appropriate Schedules to this regulation.
Sub-clauses	1. **Principles of load restraint**. Those planning, managing, supporting, or undertaking the loading of goods or cargo **shall** make sure that personnel engaged in loading are trained, current and competent in the principles of load restraint. 2. **Provision of restraint systems**. Those responsible for tasking or operating vehicles capable of carrying a load **shall** make sure that adequate and suitable restraint systems are available and used to prevent the movement of loads. 3. **Loading of vehicles and equipment**. Those planning, managing, supporting, or undertaking the loading of vehicles, equipment or freight **shall** make sure that those involved are suitably qualified, competent and current to conduct the activity. 4. **Tie Down Schemes**. Those planning, managing, supporting, or undertaking the movement of vehicles and major equipment **shall** make sure that: a. all personnel involved in the loading and securing of vehicles and major equipment have access to and apply the requirements of the Defence authorised TDS; b. the restraint equipment assemblies needed for the application of the authorised TDS are made available to the user; c. users of vehicles and major equipment for which a TDS has been supplied **shall** be formally trained in its application and use of the load restraint assembly; d. where it is found that no authorised TDS is available or damage to the equipment prevents application of an authorised TDS, a suitably qualified and competent person **shall** assess the load to determine the level of restraint required. 5. **Weighing of loads**. Those planning, managing, supporting, or undertaking the movement of vehicles and major equipment **shall** make sure that: a. accurate weights of vehicles and equipment are provided in writing to the carrier; b. all scales and weighbridges used to weigh vehicles and equipment are calibrated.

Schedules	Schedule 1: Movement of Materiel by Road Schedule 2: Movement of Materiel by Rail Schedule 3: Movement of Materiel by Air Schedule 4: Movement of Materiel by Sea Schedule 5: Movement of Materiel by Container Schedule 6: Movement of Damaged Vehicles, Aircraft and Equipment The Schedules are contained in the Load Safety and Load Restraint Manual: DLSR Regulation 510 Manual (Internal MOD access only).
Provenance	The Road Traffic Act 1988. Road Vehicles (Construction and Use) Regulations 1986. Health and Safety at Work etc. Act 1974. The Management of Health and Safety at Work Regulations 1999. Lifting Operations and Lifting Equipment Regulations 1998. Provision and use of Work Equipment Regulations 1998. Working at Height Regulations 2005. DfT Code of Practice Safety of Loads on Vehicles. European Best Practice Guidelines on Cargo Securing for Road Transport. BS EN 12195 Defence Standard (Def Stan) 00-3 – Design Guidance for the Transportability of Equipment. STANAG 4062: 2016 Sling and Tie Down for Lifting Tying Down Military Equipment for Movement by Land and Sea. STANAG 3548: 2010 Tie Down Fittings on Air Equipment. STANAG 3542: 2011 Technical Criteria for the Transport of Cargo. The Defence inventory and capability requirements demand that the MOD inventory, particularly vehicles and major equipment, have characteristics unique to the military. The nature of equipment places challenging demands on transport and movement activity, particularly where the load is a “Sprung Mass”. This regulation outlines Defence specific requirements to compliment legislation while putting in place Defence regulation to make sure that related DEDs are appropriately managed, and that Defence has suitable controls in place for this high hazard activity. The standards required by this regulation and supporting Schedules meet the conditions of Crown Enforcement Notices served on MOD due to previous breaches of legislation.
Acceptable Means of Compliance	1. **Principles of load restraint**. The general principles for load restraint (commonly referred to as ‘first principles’) encompass several key areas that **should** be considered before a consignment is loaded, secured, and moved. This is particularly relevant where a restraint system is not available and there is a requirement for calculating the restraint needed. The application of first principles **should** be applied to every load on every mode of transport and **should** consist, as a minimum, the following:

a. load positioning **should** be compatible with the platform, legislation, and governing standards;

b. the carrying platform **should** be designed, maintained and capable of transporting the chosen load;

c. the restraint system applied to the load **should** meet the minimum standard necessary to prevent load movement in line with modal requirements, the activity being conducted and environment in which the activity is being undertaken;

d. all elements of the restraint system, including the restraint points on both load and platform, **should** conform to national standards, be maintained in line with manufacturer's guidelines and when used as part of the load restraint, meet the minimum requirements to prevent the load from moving;

e. the use of friction as a method of restraint is considered unreliable and may change under varying weather condition(s) and / or properties of the transport platform. Defence does not consider friction when developing its cargo restraint system solutions. Friction **should** not be considered when calculating the level of restraint needed;

f. notwithstanding the minimum criteria of restraint to be applied for any single modal or multimodal method of transportation, the person responsible for accepting any load for carriage **should** make sure that the types and quantities of restraint employed, and the restraint scheme adopted, are compatible with the mode of transport and the expected travelling conditions to be experienced.

2. **Provision of restraint systems**. A restraint system **should** consider the requirements of all appropriate STANAGs / Def Stan and legislation relating to the type of equipment being carried and the mode of transport used for its conveyance.

3. The restraint system **should** be made available to all Defence personnel, contracted users or contracted transport operators involved in the movement of Defence equipment.

4. **Loading of vehicles and equipment**. The transport operator is responsible for providing suitable platforms for the loading and securing equipment for each load carried. The transport operator **should** make sure that all personnel under their control are suitably qualified, competent and current.

5. The design and construction of the transport unit **should** be suitable for the load. Where appropriate, the maximum expected floor loading **should** be known so that the platform itself and the section and spacing of supporting crossbeams is sufficient.

6. Prior to a platform being loaded, it **should** be checked to make sure that its load platform, bodywork, and anchorage points (and twist locks where fitted), are appropriate for the load, and are in a sound and serviceable condition.

7. **Road transport**. It is the driver's responsibility to check and make sure that the load is correctly loaded, always positioned, and adequately restrained during a journey. In particular:

a. the maximum permitted axle and gross weight limits of the vehicle are not to be exceeded. Where a part of the load is to be picked up or removed during a journey, the effect on gross weight, individual axle weights and on the securing and stability of the load **should** not be overlooked;

b. the driver **should** be aware that the removal of part of the load will reduce the gross vehicle weight, change in weight distribution, and may cause individual axles to become overloaded. The driver **should** take steps to redistribute the load, as necessary.

8. When a vehicle is to be carried on a ship, as in ferry operations, provision **should** be made for the extra load restraint needed and for chassis anchorage points to secure the vehicle to the deck.

9. **Tie Down Schemes**. The Defence authority bringing a vehicle or major equipment into service **should** make sure it provides an appropriate TDS as required by regulation 516. The TDS provided **should** consider the requirements of all appropriate STANAGs / Def Stan and legislation relating to both the type of equipment being carried and the mode of transport used for its conveyance. Vehicles and equipment design **should** be capable of meeting the necessary restraint criteria.

10. When the TDS is applied correctly, the load **should** be sufficiently restrained to prevent movement of the load taking place and to prevent any danger to the transport platform, individuals and / or the environment.

11. Where consignments are to be moved by multimodal means, load restraint solutions **should** be designed to meet the minimum standards of the mode with the most stringent requirements.

12. All selected load restraint assemblies **should** be fit for purpose. All elements of the restraint assembly including pallets, flat racks, nets, chains, and ratchet straps **should** meet legislative standards and **should** be checked and maintained in line with legislative and Defence requirements to make sure serviceability.

13. The use of MOD approved TDS and load restraint assemblies is mandated for use by Defence organisations, transport operators and transport managers. For contracted transport operations, the use of MOD approved TDS and load restraint assemblies demonstrate a proven safe method of restraint for the mode of transport being employed and their use **should** be strongly recommended.

14. **Weighing of loads**. To avoid overloading, it is essential that carriers are provided with accurate load weights.

15. Initial planning weights may be obtained from load or TDS for planning purpose; however, all vehicles and equipment **should** be weigh-bridged to ascertain the actual weight of the configuration it is to travel.

16. Equipment that is to be transported where possible **should** be weighed as it is intended to travel.

17. All equipment **should** be weighed in a format which it is to be consigned, where equipment is to be transported on a pallet then the whole pallet **should** be weighed. Where this is not possible individual boxes may be weighed then the weight of the pallet **should** be added.

	18. For CTUs including containers where the use of a weighbridge is not possible the item placed into the CTU **must** be accurately weighed including all restraint materials, this **must** then be added to the Tare weight to calculate the all-up weight. 19. All weighing equipment **must** be maintained and calibrated at the intervals in line with the manufacturer's instructions, certificates of calibration **must** be made available to competent authorities on request. Where it is identified by the user that the scales are giving inaccurate readings, equipment **should** not be used until repaired or re-calibrated.
Further Guidance	JSP 815: Defence Safety Management System JSP 816: Defence Environmental Management System Health and Safety Guidance Booklet (HSG) 136 – Workplace Transport Safety – Guidance for Employers HSG 148 – Sheeting and Un-Sheeting of tipper lorries Industry Guidance (INDG) 148 – Reversing Vehicles HSG246 – Safety in the storage and handling of steel and other metal stock. INDG199 – Managing Vehicle Safety in the Workplace BS EN 12195 Def Stan 00-3 – Design Guidance for the Transportability of Equipment TDS – STANAG 4062 Air Drop – STANAG 3548 Helicopter – STANAG 3542

511 - Defence Rail Operating

Regulation	Those planning, managing, supporting, or undertaking rail operating activities **shall** make sure that arrangements are in place to document, maintain and employ suitable and sufficient safety and environmental management arrangements.
Sub-clauses	1. **Safety and environmental responsibilities**. Those holding safety and environmental responsibilities for the operation of Defence rail **shall** make sure effective processes and procedures are in place for the management of HS&EP. 2. **Safety management arrangements.** Those providing, managing or undertaking rail operations on the Defence estate **shall** make sure that all activity is conducted in line with a documented Safety Environment Management System. 3. **Safety verification**. Those providing, managing or undertaking rail operations **shall** have procedures in place to introduce new, or altered, vehicles or infrastructure safely. Where the introduction of new or alterations to infrastructure or vehicles significantly increases the level of risk, safety verification **shall** be necessary. 4. **Safety critical work**. Those providing, managing or undertaking rail operations **shall** make sure that only suitably competent persons conduct safety critical tasks. 5. **Railway protection**. Those providing, managing or undertaking rail operations **shall** make sure the railway is protected against unwanted intrusion and unauthorised access. 6. **Separation from an operational railway**. Those providing, managing or undertaking rail operations **shall** make sure that personnel carrying out duties on an operational railway are separated from danger so that they are able to carry out their duties in safety. Where operational procedures permit personnel onto the infrastructure while trains are operating, adequate clearances **shall** be provided to allow them to carry out their duties in safety. 7. **Location identification**. Those providing, managing or undertaking rail operations **shall** make sure that there are means to identify and provide defined locations on the infrastructure for the safe operation and maintenance of the railway. 8. **Terminal tracks**. Those providing, managing or undertaking rail operations **shall** make sure that where sites have terminal tracks, arrangements are provided to stop a train and protect people and the sites from the effects of an overrun. 9. **Stabling areas safe for people**. Those providing, managing or undertaking rail operations **shall** make sure the railway system provides safe stabling, marshalling and maintenance areas. 10. **Maintenance and Entities in Charge of Maintenance (ECM)**. Those providing, managing or undertaking rail operations **shall** make sure a system of maintenance, including the use of ECMs, is in place to certify that all vehicles in service are safe to use.

	11. **Access to national rail**. Those providing, managing or undertaking rail operations **shall** make sure that personnel required to access national rail controlled infrastructure and work on or be near the line are suitably qualified, competent and current. 12. **Evacuation**. Those providing, managing or undertaking rail operations **shall** make sure that control arrangements allow for safe evacuation in an emergency. 13. **Access, egress and retention**. Those providing, managing or undertaking rail operations **shall** make sure trains have a safe means of access, egress and retention of people and goods carried. 14. **Communications**. Those providing, managing or undertaking rail operations **shall** make sure there is an effective means of communicating safety messages to those undertaking rail operations, passengers on the train or boarding and alighting from it, and between passengers and staff on the train both on board the train and to external controllers in event of an emergency.
Provenance	The Railways and Other Guided Transport Systems (Safety) Regulations 2006 (as amended) – A Guide to ROGS 2014. Railway Safety Publications 003 ‘Safe Movement of Trains’. Railway Safety Publications 005 ‘Guide to Minor Railways’. Health and Safety at Work etc. Act 1974. The Management of Health and Safety at Work Regulations 1999. The Railways and Other Guided Transport Systems (Safety) Regulations 2006 (ROGS) were introduced to put the requirements of the 2004 European Railway Safety Directive into practice in Great Britain. While Defence has an exemption from both the European Directive and ROGS, they are used as the baseline for rail safety on the Defence estate and where Defence rail interfaces or utilises National rail networks. This regulation outlines Defence specific requirements to compliment legislation while putting in place Defence regulation to ensure that DEDs are appropriately managed, and that Defence has suitable controls in place for this high hazard activity. The safety considerations and standards to be applied for the safe movement of material by rail are covered by M&T S&ER No 10, Schedule 2.
Acceptable Means of Compliance	1. **Safety and environmental responsibilities**. Those holding safety and environmental responsibilities within MOD rail **should** make sure that written safety and environmental arrangements are maintained for the management of HS&EP. 2. **Training and resources**. Adequate training and resources **should** be provided to all those holding safety and environmental responsibilities to make sure they are able to use and implement safety arrangements effectively. 3. **Competence management system**. A competence management system **should** be developed to make sure that the competencies required are identified and monitored for staff at all levels holding safety and environmental responsibilities.

4. **Safety and environmental case**. A safety and environmental case **should** be established to provide a structured argument, supported by a body of evidence that provides a compelling, comprehensible, and valid case that a rail system is safe and considers environmental effects.

5. **Management systems**. Where the system interfaces with other systems, a management system **should** be in place to identify and manage any risks created by the interfacing systems.

6. **Safety management arrangements.** Those with responsibilities for the administration, management, supervision, control, maintenance, infrastructure or use of rail activity, including the design and maintenance of rail infrastructure, on the Defence estate, **should** make sure that a safety management environmental system is provided. Safety management arrangements **should** include reference to:

a. **Safety policy statement**. This **should** be signed by the CO / HOE and made available to those involved in rail activity and cover:

(1) the CO / HOEs commitment to health and safety;

(2) emphasise the importance of staff working safely;

(3) set the roles and responsibilities of each line manager and member of staff;

(4) encourage employees to raise safety concerns.

b. **Safety targets**. Targets **should** be set to maintain and improve safety and how this is to be achieved. It **should** include:

(1) setting targets in a safety plan;

(2) the safety plan **should** be available to all staff;

(3) working in cooperation with staff, their safety representatives and managers to make sure targets are specific, measurable, achievable, relevant and timely;

(4) responsibility for meeting safety targets;

(5) setting personal safety targets for managers;

(6) regularly reporting progress.

c. **Procedures for meeting standards**. To include:

(1) identifying which standards are most relevant, and how these are to be developed;

(2) defining responsibility for monitoring and meeting specific standards;

(3) creating a system of checks to make sure standards are being maintained;

(4) regularly review standards to ensure relevance.

d. **Managing safety-related information**. A system **should** be in place to standardise procedures and formats for recording safety related information. These **should** include:

(1) involving staff and their representatives in developing your safety management system;

(2) having discussions with health and safety representatives;

(3) holding workshops with staff and managers on the main safety issues;

(4) making sure all staff and managers receive appropriate safety induction and training;

(5) holding regular safety meetings and briefings between infrastructure managers and transport operators.

e. **Emergency planning**. This **should** cover all necessary information given to the emergency services to allow them to plan their responses to incidents on the railway. Also important are the parts of the safety management system that are relevant to the arrangements for responding to emergencies, such as training for emergencies and testing plans. Emergency planning arrangements **should** include:

(1) fires on trains or activity areas;

(2) accidents that damage the rail infrastructure or buildings;

(3) access for emergency services;

(4) how to deal with suspicious packages;

(5) carriage of DG (for example, harmful substances or substances that damage the environment);

(6) the effects of bad weather.

f. **Internal assessments**. A regular assessment **should** be conducted as to whether the safety management system is effective. This **should** include the need to develop evidence to use to review the system.

(1) Developing the sampling and interview strategies needed to get a full picture of how well the safety management system is working at all levels across your organisation.

(2) Assessing whether all staff are meeting the agreed standards and keeping to the safety management arrangements.

(3) Making risk-based recommendations based on the findings of the audit.

(4) Identifying strengths in the management system and recording good practice.

(5) Identifying areas that can be improved.

(6) Reporting any faults in the system to a senior manager for them to review and act.

7. **Safety verification**. Where safety verification is deemed necessary, it **should** be conducted by an independent competent person. Safety verification **should** include:

a. making sure management arrangements are in place regarding the introduction of new or altered infrastructure or vehicles;

b. determining whether a project **should** go through a safety verification process;

c. appointing the independent competent person;

d. preparing a written safety verification scheme;

e. providing information for the independent competent person;

f. monitoring, reviewing and revising the scheme.

8. **Safety critical work**. Where an employee is required to perform safety-critical tasks they are to be competent, medically and physically fit enough to do so and are not affected by fatigue:

a. the following tasks **should** be performed by an individual who is competent and fit:

(1) driving and train dispatch;

(2) operating signals and level crossings, and related communication;

(3) coupling or uncoupling vehicles;

(4) controlling the power supply connected to track and vehicles;

(5) checking vehicles are working properly and, if loaded, loaded correctly;

(6) protecting the safety of people working on or near to the track.

b. the following tasks **should** be supervised or the work checked by someone who has been assessed as competent and fit to do so. These tasks are:

(1) installing vehicle parts;

(2) maintaining vehicles that are being used (and their parts);

(3) installing or maintaining any part of the infrastructure;

(4) installing or maintaining the power supply;

(5) installing, maintaining or operating the communications systems used to control vehicles' movement or call the emergency services.

c. those controlling safety critical work **should** make sure that every person under their management, supervision or control, and is carrying out safety critical tasks, is competent and fit to do so (except when they are receiving practical training to carry out the task). Controllers of safety critical work **should** therefore:

(1) make sure that personnel conducting safety critical work have been assessed as being competent and fit;

(2) keep and update a written record of the worker's training and fitness, including the conditions against which they were assessed;

(3) make sure written records are available for inspection;

(4) put in place a suitable and sufficient system to monitor the training and fitness of safety critical workers;

(5) review and reassess safety critical workers' competence or fitness if they have reason to doubt it or if the task changes significantly.

9. **Railway protection**. Those responsible for providing railway protection **should** consider:

a. the risk of unauthorised access and provide suitable barriers and signs;

b. the need for authorised access by people (workers, emergency services etc.) while deterring access to others;

c. the presence of earthworks and structures supporting, above or adjacent to the railway;

d. the impact of activities adjacent to the railway;

e. the provision of crash barriers where roads are adjacent to the railway;

f. visual distractions such as coloured or beams of light from road vehicles adjacent to the railway.

10. **Separation from an operational railway**. Those responsible for providing separation from the operational railway **should** consider:

a. the range of people allowed onto the infrastructure including the different needs of people who routinely and frequently go out on the infrastructure compared to those who do so only occasionally;

b. the safety clearances on the track side considering the effect of moving trains;

c. the provision of a place of safety or refuge and the time required to reach it by workers on or about the track;

d. the appropriate marking of structures where clearances do not include allowances for personnel safety;

e. the safety clearances for all walkways including those to signal posts and in sidings and depots;

f. positioning of equipment, such that safe access is easily achieved.

11. **Location identification**. Those responsible for providing location identification **should** consider:

a. the need to identify uniquely a particular exact location;

b. the need to identify uniquely the structures;

c. the method of operating the railway in both normal and abnormal conditions;

d. the need to respond to foreseeable incidents and attendance by emergency services;

e. the need for the identifying mark to be observed from both on and off the railway.

12. **Terminal Tracks**. Those responsible for providing terminal tracks **should** consider:

a. the protection arrangements for structural supports against derailment;

b. the positioning of structural and other critical supports;

c. the areas where people are likely to congregate in the potential overrun area;

	d. the overrun provisions and type of arresting device(s) provided; e. the protection that can be gained from automatic train protection or train stop systems; f. the effect on braking performance caused by the weather, or contaminants; g. the balance of risk between damaging the train and injury to its crew / passengers and damaging the site and the people using the site. 13. **Stabling areas safe for people**. Those responsible for providing stabling areas **should** consider: a. the segregation of the marshalling, stabling, servicing and maintenance areas from the running lines; b. the protection of people in these areas from danger from moving trains; c. the type of any electric traction system as overhead traction is generally safer; d. the position of any electric traction system, its sectioning and its means of isolation to facilitate train cleaning, servicing, maintenance or any other activities; e. protection of the area from activities adjacent to the railway; f. the need for adequate clearances and walkways; g. the need for identifiable crossing places; secure stabling of trains; h. segregation of road vehicles in the area from trains and people; i. the arrangements for the control of train movements within, into and from the area and the provision of lighting for operational activities; j. the security of the site from trespass; k. choice of electric traction system, i.e., overhead generally better for worker safety than conductor rail; l. safe access to trains when working at height. 14. **Entities in Charge of Maintenance**. Those responsible for placing a vehicle in service **should** make sure that: a. an ECM is assigned to the vehicle; b. the details of the ECM are registered on the National Vehicle Register; c. where the vehicle is a freight wagon, the ECM **should** hold an ECM certificate. 15. **Access to national rail**. Those responsible for Defence rail operations **should** make sure that staff working on, or near to, the national rail infrastructure are in possession of an in date Personal Track Safety qualification.

	16. **Evacuation**. Those responsible for making sure suitable evacuation measures **should** consider: a. the time taken to complete site evacuation; b. the protection of evacuation routes; c. access for emergency services; d. information systems for evacuation. 17. **Access, egress and retention**. Those responsible for providing access and egress and stations **should** consider: a. acceptable stepping distances to and from the platform; b. the size, number and arrangement of doors; c. the arrangements for the control of the doors; d. the arrangements to prevent the doors being opened when the train is moving; e. the arrangements to avoid trains departing with doors open; f. the hazards created by the doors moving; the arrangements to avoid trapping people in doors especially prior to departure from a station; g. the arrangements for emergency evacuation of the train; h. provision of equipment and arrangements for the escape of persons in an emergency and the arrangements for gaining access into the train in emergency situations; i. that goods are loaded safely and secured effectively. 18. **Communications**. Those responsible for providing communication systems **should** consider: a. communications between the train, train crew and control or signalling centres; b. communications between the members of the train crew onboard the train; c. communications between the train crew and passengers.
Further Guidance	JSP 815: Defence Safety Management System JSP 816: Defence Environmental Management System The Railways and Other Guided Transport Systems (Safety) Regulations 2006. The Railways and Other Guided Transport Systems (Safety) Regulations 2006 (as amended) – A Guide to ROGS 2014. JSP 790 (Internal MOD access only) is the 'functional' policy document for Defence railway activities and takes precedence over all other MOD documents relating to Defence rail. Railway Group Standards including Rail Industry Standards, Rail Industry Approved Codes of Practice, Guidance Notes and Good Practice Guides where appropriate.

	Other rail related Rail Safety & Standards Board (RSSB) and HSE guidance and reports. Rail Accident Investigation Branch reports and guidance. The Health and Safety at Work etc. Act 1974. The Management of Health and Safety at Work Regulations 1999. MOD UK Railways: Permanent Way: Design and Maintenance Policy and Standards. Other rail related RSSB and HSE guidance and reports. Rail Accident Investigation Branch reports and guidance. Further information regarding ECM can be obtained from ORR at https://www.orr.gov.uk.

512 - Control, Management and Use of MOD Provided Vehicles

Regulation	Those planning, managing, supporting, or controlling the use of MOD provided vehicles **shall** make sure that arrangements are in place so that all vehicles are controlled, managed, and used or operated safely.
Sub-clauses	1. **Vehicle management responsibilities**. Those planning and managing the provision of vehicles for Defence activities **shall** make sure that roles and responsibilities of those using the vehicles are clearly defined and documented. 2. **Driver responsibilities**. Those driving or operating MOD provided vehicles **shall** comply with all appropriate legislation, Defence regulations and respective policy regarding vehicle use. 3. **Control of MOD provided vehicles**. No person **shall** drive, or cause or permit any other person to drive, a MOD provided vehicle unless they have an authority to use the vehicle. When in use the driver or operator **shall** always be in proper control of the vehicle and have a full view of the direction of travel. 4. **Fitment and use of vehicle utilisation and driver behaviour systems**. Where tactically feasible, vehicle utilisation and driver behaviour systems, providing real time data on how the vehicle is being driven / operated **shall** be provided and be appropriately administered. 5. **Vehicle roadworthiness**. Those responsible for the provision, tasking, allocation, and use of MOD provided vehicles **shall** make sure that the vehicle(s) are in a roadworthy and legal condition, and correctly fitted with all mandated safety equipment before being used. 6. **Vehicle loads**. Those responsible for the provision, tasking, allocation, and use of MOD provided vehicles **shall** make sure that any load or items carried on, or in, the vehicle are appropriately restrained to prevent movement which **could** be of danger to the occupants of the vehicle, other road users or any other person or property. 7. **Vehicle speed limits and vehicle speed restrictions**. Those responsible for the provision, tasking, allocation, and use of MOD provided vehicles **shall** make sure that relevant information is provided to drivers, riders, and vehicle commanders in respect of all applicable speed limits or speed restrictions associated with the vehicle with respect to the types of roads or terrain the vehicle is required to operate. 8. **Pre-use vehicle checks**. Those personnel controlling or operating MOD provided vehicles **shall** make sure that a safety check of the vehicle is conducted prior to use. 9. **Driver and passenger safety**. Those responsible for the controlling, tasking, allocating or using MOD provided vehicles **shall** make sure that: a. drivers do not conduct any activity which may affect their concentration, while performing a driving task; b. passengers do not distract a driver while they are performing a driving task;

c. only compliant fitted out seating and safety belts (or harnesses) are available and used by the driver and passenger(s);

d. passengers **shall** only be carried in vehicles which are designed or constructed for the carriage of passengers, save as permitted by Sub-clause 14 to this regulation;

e. passenger carrying capacity is not exceeded or with equipment cause the vehicle's weight capacity to be exceeded;

f. vehicle safety exits are operational and accessible;

g. appropriate safety clothing and equipment be provided and used.

10. **Use of open architecture vehicles**. Those personnel controlling or operating open architecture vehicles **shall** make sure that appropriate safety clothing and equipment is made available and used by those operating the vehicle.

11. **Military vehicles exceeding 3.5-tonnes Maximum Authorised Mass**. Those managing vehicle related activities **shall** make sure that drivers of wheeled vehicles, including Armoured Vehicles (Wheeled) (AV(W)) and vehicles used for firefighting or fire salvage purposes, which are in excess of 3.5-tonnes MAM, hold a valid driving licence entitlement which equates to the MAM of the vehicle (category C1 or category C), or passenger carrying capability (category D1 or category D) of the vehicle being driven.

12. **Crew served platforms**. Those responsible for the management, supervision or use of a crew served platform **shall** make sure that:

a. a commander is required whenever the vehicle is in use;

b. a commander **should** hold a valid driving licence for the vehicle category and be formally trained and certified as a commander for the platform.

13. **Vehicle specific user requirements**. Those responsible for sponsoring vehicle capability **shall** define the minimum user requirements, training standards, vehicle safety equipment and specific personal protective equipment required for individuals to drive, operate, or command that capability.

14. **Use of Dual-Purpose Vehicles (DPV) in a Troop-Carrying Vehicle (TCV) role**. Those responsible for the use of a DPV in a TCV role, **shall** make sure that:

a. the driver holds an appropriate driving licence for the vehicle being used;

b. the driver has a level of training and experience commensurate to driving the vehicle in a passenger carrying role;

c. only appropriate seating is utilised, correctly fitted, and secured;

d. the vehicle is being used for Navy, Army, or Air Force purposes;

e. each passenger is to have access to an individually fitted seat, a secured seat belt or appropriate personal restraining device, which is always to be worn while the vehicle is in motion;

f. a passenger supervisor is nominated;

g. a safety brief is provided to all passengers prior to movement.

	15. **Routes of Public Access (ROPA)**. Those planning, managing, supporting, or conducting activities on the Defence estate involving the operation of MOD provided vehicles where ROPA exists **shall** make sure that suitable arrangements are in place for the safety of all road users. Where ROPA exists, military vehicles **shall** only be used on those routes where they are deemed to be: a. fully compliant with legislation; b. certified as compliant via the LEC process, subject to any limitations stipulated on the LEC certificate; c. vehicles which are non-compliant with legislation or not certified via the LEC, **shall** not be operated where ROPA exists (save for where a non-compliant vehicle needs to cross a ROPA from one training area, or establishment, to another and no alternative route is viable).
Provenance	The Road Traffic Act 1988. The Road Traffic Regulations Act 1984. The Motor Vehicles (Driving Licences) Regulations 1999 (SI 1999/2864). The Road Vehicle (Construction and Use) Regulations 1986. The Motor Vehicles (Wearing of Seat Belts) Regulations 1993. The Armed Forces Act 2006. Vehicle Drivers (Certificate of Professional Competence) Regulations 2007 SI 2007/605. Road Vehicles (Registration and Licensing) Regulations 2002 (SI 2002/2742). Regulations (EC) No 561/2006 Art 3 I. Transport Act 1968 102 (1)(2). The Highways Act 1980. The Community Driver's Hours and Recording Equipment Regulations 2012. The Road Vehicles Lighting Regulations 1989 (RVLR). The Goods Vehicles (Licensing of Operators) Regulations 1995. Public Passengers Vehicles Act 1981. Visiting Forces and International Headquarters (Application of Law) Order 1999. Emergency Powers Act 1964 Emergency Laws (Repeal Act) 1959. The Road Vehicle (Authorisation of Special Types) (General) Order 2003 Part 5 Regulation 53. Transport for London – GLA 2015 No. 11. The Road Safety Act 2006. The Road Traffic (New Drivers) Act 1995. The Road Traffic Offenders Act 1988. The Road Traffic Regulations Act 1984.

	Traffic Management Act 2004. Health and Safety at Work etc. Act 1974. The Management of Health and Safety at Work Regulations 1999. Vehicle Excise and Registration Act 1994. The requirement for every unit and / or establishment to provide an effective managerial regime for the operation of MOD provided vehicles is essential. It requires units to understand how it uses its vehicle assets safely, have suitably trained individuals in key posts and provide them with clear safety regulatory requirements regarding their roles and responsibilities. This regulation also seeks to bring together in one place the various legislative requirements concerning ROPA on the Defence estate. This will enable commanders at all levels to use the information when planning M&T activity in their Area of Responsibility. Defence uses vehicles and equipment; many of which legislation in relation to vehicle construction and use does not apply. These vehicles will be used on the Defence estate, which in large parts, is open to the public to access and traverse including the use of ROPA, for example, Salisbury Plain Training Area.
Acceptable Means of Compliance	1. **Vehicle management responsibilities**. All personnel tasked to manage, control, or supervise the use of MOD provided vehicles **should** have clearly defined levels of responsibility. Management arrangements **should**: a. define and record the levels of responsibility and training requirements; b. be reviewed annually. 2. **Unit vehicle management**. Where a unit holds or has a requirement to use a MOD provided vehicle, they are to make sure that an individual is nominated as the unit's vehicle manager and be appropriately trained. 3. **Unit level standing orders**. Every unit / establishment **should** produce and make available to all staff who manage, control, operate or use MOD provided vehicles, a set of units standing orders and driver's orders and / or standing operational procedures. These orders **should** support, or further clarify, how and by whom activity involving the use of MOD provided vehicles **should** be applied within that unit. 4. **Fault reporting**. Any fault that cannot be corrected is to be reported to the unit nominated transport manager as soon as possible. If the fault renders the vehicle unsafe to use or non-street legal, the driver **should** seek advice from the unit nominated transport manager regarding completion of the journey. 5. **Driver responsibilities**. Management arrangements **should** be in place to make sure that all personnel driving vehicles on MOD business are aware of their responsibilities. All use is to be fully compliant with legislative and Defence regulatory and policy requirements. 6. Those driving or operating MOD provided vehicles need to be made aware of their responsibilities regarding vehicle use and the effects their actions have on other road users. 7. Drivers are to be provided with appropriate training sufficient to operate the vehicle safely within its designed capabilities.

8. **Vehicle speed restrictions**. Drivers are to be aware of the speed restrictions or maximum speed limits of their vehicle. Vehicles are only to be driven at a speed that will allow the driver to be able to stop well within the distance that can be seen to be clear.

9. **Legislation compliance**. A driver **should** be made aware that they are in control of the vehicle and are required to comply with all legislation and Defence regulations regarding its use. Drivers are liable to prosecution if through their neglect such use is deemed to be in contravention.

10. **Use of MOD provided vehicles**. An authority to drive or travel in a MOD provided vehicle is to exist prior to any individual driving, operating or travelling in it.

11. **Vehicle use**. Prior to starting a MOD vehicle, the driver **should** be sat in the driver's seat and have correctly adjusted mirrors and controls. Prior to moving off the driver **should** make sure that they have a full view of the direction of travel. Where this is not possible, the driver **should** check it is clear of other road users or other obstructions before proceeding.

12. A MOD vehicle **should** only be used when:

    a. vehicle inspections, servicing and maintenance requirements have been met and are in date;

    b. the vehicle is, in all respects, roadworthy or if undergoing maintenance or repair to make it roadworthy;

    c. the driver has conducted a before use check of the vehicle;

    d. the driver holds the correct driving entitlement for the vehicle;

    e. an authority to use the vehicle exists;

    f. it is being operated within its design configuration and parameters.

13. **Use of trailers**. When using trailers, the driver **should** make sure that the towing vehicle is of the correct weight and has a tow hitch with a height which matches that of the trailer. The driver **should** also make sure that the trailer and connections are securely attached to the prime mover and all locking devices, including the jockey wheel / legs, are secured prior to moving off. When towing a fixed eye drawbar trailer, the driver **should** make sure that the vehicle towing eye is free to rotate.

14. **Route selection**. Where a driver is provided a route by the M&T staff, it **should** be followed. Departure from that route may only be made in an emergency or when so directed by a superior officer, police officer or traffic warden. If no such route is given, the driver **should** use the shortest practical route between the start point and destination, taking note of the sub paragraphs below:

    a. make best use of motorways, which may make a route longer in distance but shorter and more practical in time;

    b. when driving a high-sided vehicle (i.e., one that has an overall height of more than 3-metres) the driver **should** make sure that:

(1) they follow the authorised route; this **should** take account of low bridges and any other overhead obstructions;

(2) carry details of the dimensions and weight of the vehicle and any load;

(3) when driving a vehicle fitted with a load height indicator in the cab, it **should** be immediately reset after loading to accurately reflect the overall travelling height.

15. **Reversing**. A driver **should** not reverse a vehicle further than may be deemed reasonable. Before reversing the driver **should** make sure that there are no pedestrians, road users or other obstructions behind them or on their intended line. Drivers **should** be especially careful about the 'blind spot' areas behind them and to the side as the vehicle swings out. Where necessary the driver **should** physically check to the rear of their vehicle prior to reversing. Where feasible a driver **should** seek assistance when reversing. Where assistance is provided the driver is to stop immediately, they lose visual contact with those giving such assistance.

16. **Reverse parking.** To reduce danger to pedestrians, maximise safety and assist vehicle access and egress, MOD provided vehicles **should** be reverse parked. This ensures that vehicles are best positioned to be driven away (forwards), providing visibility of the surrounding areas to the driver. Many unnecessary vehicle accidents occur while reversing. A trained marshaller **should** be used when reversing and visibility is restricted.

17. **Fitment and use of vehicle utilisation and driver behaviour systems**. To provide maximum fleet optimisation, analyse vehicle use and aid management decisions regarding vehicle utilisation, the use of a fleet management information or telematic system is a cost-effective measure. The use of telematics is well proven, can save money and **should** be fitted as a minimum standard to all MOD provided vehicles, particularly those used for administrative purposes.

18. **Benefit of use**. An associated benefit of telematics is in driver behaviour where data can be immediately transmitted, collated, and analysed, identifying trends so that road risk can be minimised and improvements in accident reduction can be made.

19. **Telematic reports**. Automatically generated reports can be made available, and these **should** be made accessible via the MOD IT infrastructure. A variety of reports **should** be made available within the application; for example, designated time periods, speed, poor control, or aggressive braking. Report requirements **should** be determined by each Defence organisation, as appropriate.

20. **Telematic management**. Defence organisations **should** nominate representatives to act on report findings and provide statistical feedback. The reports do not need to identify the driver, but provide the vehicle registration number, where and when the instance took place and the extent to which telematic parameters are exceeded.

21. **Managing inappropriate driving**. Managing instances of (alleged) inappropriate driving in MOD provided vehicles is the responsibility of the Chain of Command. All occurrences of inappropriate driving **should** be investigated, regardless of the rank or grade of the driver and, where deemed appropriate, suitable action taken. Those responsible for the management, control or supervision of vehicle use **should** therefore make sure that:

a. drivers are made aware of their responsibilities under legislation, the Highway Code and MOD Drivers Standing Orders;

b. drivers are made aware that the telematic systems record aspects of their driving behaviour and that action **could** be taken if they are identified as having infringed traffic laws, or drive in a manner considered to be unsafe to themselves and / or other road users;

c. transport managers / line managers act robustly to rectify the behaviour of those drivers found to be placing themselves and / or others at risk. In those cases of persistent or repetitive risk taking and monitoring all other cases of alleged inappropriate driving to identify trends;

d. a robust process is put in place for investigating and dealing with inappropriate driving. Where available, telematic reports **should** be used to identify suspected breaches of UK law or Defence organisations agreed safety parameters. In implementing these processes, the Defence organisations are to be able to demonstrate that they are:

(1) proactively seeking to improve driver and passenger safety;

(2) proactively seeking to reduce costs of vehicle repairs;

(3) carrying out appropriate retraining and administrative action against MOD personnel where driving is deemed to be unsafe or has been shown to breach the law, this includes the removal of the right to use MOD provided vehicles where appropriate.

22. **Improving driving behaviour**. Key to the success of reducing the level of risk to MOD personnel is to use the reports of alleged inappropriate driving to educate drivers that this behaviour is not acceptable. It is acknowledged that drivers may not be aware that legal or safety parameters have been exceeded and furthermore, that over time, individuals may pick up ‘poor driving techniques’ which they may not themselves consider to be unsafe. A Chain of Command’s approach to dealing with inappropriate driving **should** be a progressive process aimed at educating an individual, moving them away from unsafe and risky actions, thus improving their driving skills. An example of a process for improving driving behaviour **could** be:

a. **Stage 1 – Consultation and cooperation**. The driver is advised by their Line Manager or a Transport SME that a telematic report indicates alleged inappropriate or unsafe driving. The circumstances **shall** be discussed, the driver informed that unsafe driving is unacceptable and they are required to amend their driving behaviour to be safe and within legal limits;

b. **Stage 2 – Pro-active development**. Where there are repeat or serious offences the Line Manager or Transport SME interviews the driver to discuss why the same or similar alleged unsafe actions are being repeated. In addition, the Line Management considers whether further training is appropriate such as a driving assessment with a qualified instructor / examiner, continuation training and / or attending a behavioural driving / speed awareness course;

c. **Stage 3 – Accident prevention**. Where it is evident that despite remedial training and support, a driver is continually found to be driving inappropriately and is putting themselves and / or other road users at risk, Line Management consider administrative action. To reduce the likelihood of an accident the Line Management take preventative action and consideration **should** be given as to whether the individual is fit for driving duties;

d. **Addressing trends**. Where specific trends in driver behaviour are identified group education **should** be arranged by the unit. This can involve presentations by Defence road safety staff or road safety organisations, emergency services and charitable organisations.

23. **Vehicle roadworthiness**. Those responsible for the management of MOD provided vehicles **should** make sure that a MOD provided vehicle is legally compliant for use and that a maintenance programme for every vehicle exists and is in every respect ‘fit for purpose’ before being used. In addition:

a. a clearly defined system predetermined by intervals or mileage **should** be used;

b. a fault reporting system **should** be in place for all vehicles and associated equipment;

c. a record of all remedial work carried out on the vehicle **should** be maintained.

24. **Vehicle loads**. Drivers need to be fully aware that they are normally legally responsible for the vehicle load from the time it is loaded until it is offloaded. Any load or items carried on, or in, the vehicle need to be appropriately restrained to prevent movement which **could** be of danger to the occupants of the vehicle, other road users or any other person or property.

25. Where a driver is required to take a load which has been prepared by a third party, the driver **should** be content that the load is safe and secure, is not overloading any axle or the overall weight of the vehicle or **could** be a danger to other road users. Where doubt exists, the driver **should** refuse to take the load and raise their concerns to those responsible for the loading.

26. **Responsibility for vehicle loads**. Drivers are:

a. required to know the maximum permitted load, i.e., the MAM of the vehicle and the load weight permissible on each axle;

b. legally responsible for ensuring that width, length, and height limits are not exceeded and that loads are appropriately marked where required;

c. responsible for ensuring that the load is correctly placed, distributed, and secured in position to make sure that it is not dangerous, or liable to become so;

d. to make sure that all loads are correctly distributed over the cargo area and for securing and restraining loose loads where this is required. Guidance on loads can be found in JSP 800, Vol 7 (Internal MOD access only). When selecting load restraining and securing systems, the adequacy of tie down points on vehicles **should** be considered;

e. responsible for safeguarding the vehicle and its load while on duty;

f. to refuse to accept any load when the full details of weight, dimensions or nature of the load is not supplied by the consignor.

27. **Load security and safety**.

a. **Carriage of loads**. Drivers of MOD provided vehicles carrying a load **should** make sure that any load carried (including that on a roof rack or vehicle related equipment) is secured safely prior to movement of the vehicle.

b. **Canopy fitted vehicles**. Where a vehicle is fitted with a canopy the driver is to make sure that both the canopy and frame are serviceable and that all locking pins and security straps are present and fitted correctly. The canopy (when fitted) is to be secured correctly and that all rope ties and strap assemblies are secured safely.

c. **Ancillary equipment**. Make sure any ancillary equipment, such as mobile crane stabilising legs, are stowed correctly before moving the vehicle.

d. **Camouflage nets.** The draping of camouflage nets on moving vehicles is not permitted on public roads. Camouflage nets or hessian screens are to be securely stowed prior to movement.

28. **Vehicle speed limits and vehicle speed restrictions**. MOD provided vehicles **should** only be driven at such a speed which will allow the driver to stop within the distance which is seen to be clear.

29. Due to their design, configuration, steering and braking systems or type of tyre used, many MOD provided vehicles are subject to speed restrictions, which are often lower than national limits. Drivers of MOD provided vehicles **should** be made aware of all speed limits for the vehicle they are to drive and any speed restriction due to its design or safety limitations.

30. Management procedures **should** be in place to make sure that drivers are aware of all applicable speed limits associated with the vehicle they are required to drive.

31. **Military track laying vehicle speed limits**. Military track laying vehicles, such as Armoured Vehicles (Tracked) (AV(T)), are designed to operate safely at speeds exceeding the 20-mile per hour limit imposed on commercial tracked vehicles. Defence has a derogation in England and Wales which permits tracked laying vehicles to operate on public roads at speeds above this legal limit.

32. Those responsible for the use of track laying vehicles on public roads **should** have appropriate arrangements and controls in place to make sure that:

a. vehicles with a MAM not exceeding 30-tonnes are limited to a speed not exceeding 40-miles per hour;

b. vehicles with a MAM exceeding 30-tonnes are limited to a speed not exceeding 30-miles per hour.

33. Regardless of activity or the MAM of the vehicle, operating procedures **should** include arrangements to make sure that the maximum safe operating speed for each vehicle as documented in the specific safety case is not exceeded.

34. **Pre-use vehicle checks**. Management procedures **should** be in place to make sure that drivers conduct a basic check of a vehicle prior to use to make sure it is roadworthy. The check **should** make sure that there are no obvious faults that would affect safe use and / or occupant safety. Where a fault is found, the fault(s) is to be reported and the vehicle is not to be used until the fault(s) are rectified. A record of vehicle checks **should** be maintained, including:

a. details of the individual conducting the checks;

b. details of faults found, and action taken;

c. details of the vehicle status.

35. **Vehicle checks**. Drivers are required by law to make sure the vehicle they are using is in a roadworthy condition and any load or ancillary equipment is safe and secure. Prior to a MOD provided vehicle being used, a safety check **should** be conducted by the driver to make sure it is fit for purpose and does not pose a danger to themselves, their passengers or other road users. It is therefore essential that it is checked in line with the manufacturer's specifications and vehicle user handbooks. Particular attention **should** be paid to seat belts, steering, tyres (tread depth, condition, and pressure), tracks, wheel nuts, brakes, lights, mirrors, windscreen cleanliness and speedometer. A vehicle **should** not be used if a fault is found which renders it unfit for use.

36. **Start-up procedures**. Any person intending to start or operate a MOD vehicle **should** be correctly positioned in the driver's seat and in full control prior to commencing start-up procedures.

37. **Vehicle cleanliness and tidiness**. Drivers of MOD provided vehicles and commanders where applicable, **should** make sure that the vehicle being used has:

a. clean serviceable windows, mirrors, lights, reflectors, and number plates;

b. a clean and tidy interior with any equipment, or associated loads, are securely stowed so they cannot move or interfere with the operation of the vehicle, nor cause a hazard to passengers or other road users;

c. a standard of exterior cleanliness appropriate to the type and usage of the vehicle;

d. all excess mud removed before it is used on any road which is open to, or used by, the public.

38. **During use checks**. During use checks **should** be made by the driver to make sure no vehicle faults have developed, including those items checked before use, that the vehicle remains roadworthy and that any load remains secure and safe.

	39. **Adherence to audible or visible warnings**. A significant number of vehicle collisions, on-board fires and cases of catastrophic major component failure are known to have occurred due to drivers and crews continuing to drive on regardless of warning signs and symptoms indicating to them that they **should** stop. Drivers are reminded of the risk of not only personal, vehicle occupant or third party injury but also of fire and explosion, if they continue to drive on while ignoring either pressure and temperature warnings or other signs such as abnormal sounds, smells or smoke coming from their vehicles. 40. **After use checks**. After use checks **should** be conducted to detect any vehicle faults which may have occurred during use and which may require attention before the vehicle is used again. 41. **Defect reporting**. Those responsible for the tasking, allocation and use of MOD provided vehicles **should** make sure that a defect reporting system is in place to prevent unfit vehicles from being made available for use. 42. **Driver and passenger safety**. Those responsible for the tasking, allocation and / or use of MOD provided vehicles **should** make sure that the vehicle is safe to use and that legally compliant fitted seating is available for the driver and any passenger(s). Passengers may only be carried in vehicles which are designed or constructed for the carriage of passengers. See also para 13 of this regulation below. 43. **Unauthorised use.** Only personnel authorised to drive or be conveyed as passengers may travel in MOD provided vehicles. 44. **Use of seats and seat belts**. All drivers / passengers of MOD provided vehicles (which includes a vehicle's crew) are required to use appropriately compliant and fitted seating, wear seat belts / harness and be suitably restrained prior to any vehicle movement. Where an individual is unable to comply, the vehicle **should** not be used. 45. **Vehicle weight limitations**. Many vehicles (especially minibuses) are limited to the number of passengers and level of equipment that they may carry at the same time, as the MAM may easily be exceeded. Care is therefore to be taken to make sure that where passengers and / or loads are carried that enough room is available for passenger safety and comfort. Where necessary, the weight of passengers and that of any load carried need to be considered against the vehicle's carrying capacity. 46. **Safety considerations**. Any items carried in the passenger compartment are to be securely stowed so that it cannot interfere with the operation of the vehicle or pose a loose article hazard. Arrangements, such as a baggage vehicle, use of roof racks or boxes **should** be considered. Where this is not possible, a ratio of two passenger seats to one seat set aside for equipment **should** be used. Where minibuses are operated care needs to be taken to make sure that any load carried does not block walkways or exits. In addition, when passengers are carried, emergency exits are not to be locked or blocked. 47. **Clothing and footwear**. Personnel **should** wear clothing appropriate to the task and boots or shoes which are suitable for driving. Operating vehicles without footwear is forbidden. Where local rules apply Hi-Vis clothing is to be worn as appropriate.

48. **Spectacles and contact lenses.** Drivers, who are required to wear spectacles, or contact lenses, while driving, **shall** do so. They **shall** also carry a second pair to provide a replacement **should** these be broken. Users of contact lenses are also to carry a spare pair of lenses or spectacles.

49. **Sunglasses**. When driving in bright or dazzling conditions drivers **should** wear sunglasses. If MOD pattern sunglasses are not available, drivers **should** use an appropriate alternative.

50. **Night Vision Devices (NVD).** Driving using NVD equipment is restricted to military training areas and theatres of operations. NVD are not to be used when travelling on public roads under any circumstances (See also Routes of Public Access (ROPA) Regulation 512 Sub Clause 15)).

51. **Mobile telephones and Personal Electronic Devices (PED)**. Mobile phones, any type of 'hands free' mobile phone equipment and PED **should** not be operated while driving. Drivers **should** be discouraged from answering a call while driving and, in addition, Unit Standing Orders are to detail the action to be taken by a caller **should** it become apparent that a person is driving when a telephone call is made.

52. **Use of personal audio earphones / headphones.** MOD personnel engaged in driving, operating, or commanding vehicles or working in the vicinity of vehicles (transport workplace) are forbidden from wearing personal audio 'in ear' or 'headphones' equipment. This policy does not refer to crew communications headsets, anti-noise reduction headphones, personal protection ear defenders or hearing aids. Motorcyclists may use authorised communication systems, where applicable.

53. **Electronic vehicle aids or equipment**. Having suitable electronic aids or equipment is no substitute for effective route planning but it may assist a driver to avoid causing accidents, especially when routes change during a journey. Electronic vehicle systems (including satellite navigational equipment) **should** be suited for the type of vehicle being driven and, if suitable, may be fitted and used in MOD provided vehicles providing that:

a. it is compatible with the vehicle's height, width, and weight;

b. the equipment is positioned so that it does not obscure the driver's vision;

c. the equipment is operated by a passenger or is programmed for the journey while the vehicle is parked at rest and is not adjusted while the vehicle is in motion;

d. full control of the vehicle is always maintained;

e. drivers have received appropriate training to use the device and are aware of the correct procedures to set and react to alarms.

54. **Emergency equipment**. Those responsible for the management, control and use of MOD provided vehicles **should** make sure that a management control process is in place to check that vehicle emergency and wheel changing equipment is fit for use and available where required.

55. **Fire extinguishers**. Those responsible for the management, control and use of MOD provided vehicles which require being fitted with fire extinguishers, **should** make sure that a management control process is in place to provide for necessary serviceability checks.

	56. **Use of open architecture vehicles**. Those controlling or operating open architecture vehicles **shall** make sure that appropriate safety equipment and safety clothing is made available and worn or used by those operating or using the vehicle. 57. **Motorcycles**. Motorcyclists **should** wear protective equipment when riding motorcycles. This is to include a minimum of the current military standard issue protective clothing, in date British Standard Institution (BSI) or equivalent EU standard (ECE) approved pattern motorcycle helmet with visor or goggles and high-visibility vests (dependent upon the operational situation). 58. **Passengers on motorcycles**. Pillion passengers are not to be carried on a motorcycle unless suitable seating and feet supports (or rests) are permanently fitted and available for that person. 59. **All-Terrain Vehicles (ATV)**. Personnel undergoing training of an ATV **should** wear military issued clothing (including protective clothing), high-visibility vests and an in date BSI / ECE approved pattern motorcycle helmet with visor or goggles. Once trained, and assessed as competent, personnel operating within an operational environment (or taking part in training where there is a requirement to fit helmet equipment, or the risk of ballistic injury outweighs that of an injury from an incident), the Chain of Command may, subject to appropriate risk assessments, authorise the wearing of operational clothing (including the issued combat helmet, body armour and suitable eye protection). 60. **Materiel Handling Equipment (MHE).** Operators of MHE vehicles, which are not fitted with a safety cage to protect the driver / operator, **should** wear an approved safety helmet when driving or operating the vehicle. 61. **Protective goggles**. Issued protective goggles **should** be worn by drivers, commanders and passengers of vehicles which are not provided or fitted with windscreens. 62. **Military vehicles exceeding 3.5-tonnes Maximum Authorised Mass**. Those managing or controlling transport activities are to make sure that all drivers of military vehicles, including AV(W) and those vehicles used for firefighting or fire salvage purposes, which are in excess of 3.5-tonnes MAM are in possession of a valid driving licence entitlement which equates to the MAM of the vehicle (category C1 or category C), or passenger carrying capability (category D1 or category D) of the vehicle being driven. 63. **Crew-served platforms**. To make sure the safe movement of a crew served platform, those responsible for the management or control of activity **should** appoint a vehicle commander. While the driver remains responsible for the control of the vehicle, there will be occasions where the commander will be required to assist. 64. **Commanders of crew served platforms**. It is essential that commanders have sufficient appropriate knowledge, skills, and experience to perform their duties. 65. Those responsible for the management or control of activity **should** make sure that personnel appointed as platform commanders are qualified to command and hold a valid driving licence entitlement appropriate for the vehicle platform they are to command. As a minimum the commander **should** hold:

a. tracked vehicle commander – category B and H entitlements;

b. AV(W) commander – a valid driving licence that equates to the MAM or passenger carrying capacity of the vehicle being commanded;

c. an appropriate commander training qualification for the platform.

66. **Vehicle specific user requirements**. Those sponsoring vehicle capability have a responsibility to define the minimum user requirements to drive, operate or command a vehicle or platform. This **should** include the publication of concept of use documentation, the completion of an appropriate training needs analysis, issuing of formal training statements and subsequent assurance that such training is delivered and adhered to. In addition, the capability sponsor is to define:

a. the appropriate type and level of vehicle safety equipment and safety training proportionate to use. This **should** include knowledge of engine, fuel and battery shut down processes, as well as crew 'drop down' and 'vehicle extraction' procedures;

b. minimum personal protective equipment requirements relative to vehicle design, capability and intended use necessary for individuals to drive, command, operate or use that capability safely;

c. any requirement for appropriate communication systems between the commander, driver and / or crew or passengers, which will need to conform to JSP 375 (Chapter 25 Noise at Work).

67. Reference of these requirements **should** be provided in associated documentation, such as user handbooks, and be made available to the user community, training establishments and repair organisations.

68. Information **should** refer to and include[2], but is not limited to:

a. platform speed limits and any speed restrictions;

b. driver licensing requirements;

c. first principles of vehicle loading and load restraint;

d. **User Training**. The training **should** be provided to demonstrate a driver's ability to drive, operate or maintain a platform effectively, with appropriate consideration to vehicle control, road positioning and safety to passengers and crew as well as other road users;

e. **Entry Standards**. What driving licence category is required; what pre-requisites such as minimum driving experience, knowledge of the vehicle platform operating systems;

f. **Course loading**. Is there a restriction on the numbers to be trained?

g. **Instructor Qualification**. The necessary standards or qualifications of those deemed competent to provide training;

h. **Training Standards**. To be based on:

(1) the outcome of a training needs analysis for course duration and content;

(2) training provided by a qualified instructor with a set instructor to student ratio;

(3) assessments conducted by a qualified assessor, who may not be the training instructor;

(4) theory and practical training and testing to be defined. This **could** include:

(a) vehicle characteristics;

(b) levels / limitations of direct and indirect visibility, including blind spot awareness;

(c) preparation of the vehicle prior to use;

(d) vehicle control systems;

(e) reacting to vehicle commander direction;

(f) road positioning, in particular Left Hand Drive vehicle use in UK or Right Hand Drive vehicle use abroad;

(g) cornering;

(h) approaching and dealing with hazards;

(i) the effects of a load on vehicle dynamics.

(5) in any weather condition, by day and night;

(6) traffic density and consideration of other road users;

(7) route and off-road criteria. The suitability of a route for the platform being used which includes, where appropriate, access to and the use of a combination of:

(a) A and B roads;

(b) motorways and dual carriageways, mileage to be included;

(c) urban, rural, and cross-country environments. These **should** define the requirements which are suitable to the characteristics of the vehicle and be progressive in line with the ability of the driver;

(d) mileage conditions to be included;

(e) by day and night, in all-weather conditions.

i. **Assessor Qualification**. The standards or qualification required for an assessor;

j. other areas for consideration:

(1) testing standards;

(2) type of assessment;

(3) timings. Length of the course, etc;

(4) grading policy;

(5) retesting policy;

(6) failure policy;

(7) resource requirements.

[2] This information and / or training required etc, would need to cover all variants of vehicles or platforms held.

69. **Reduced visibility vehicles / platforms**. On vehicles / platforms where driver visibility is reduced to the extent that clear vision of the road ahead or around the vehicle is not feasible, vehicle or platform sponsors **should** consider directing the use of a co-driver or vehicle commander to assist the driver.

70. **Vehicle commander responsibilities**. Where a vehicle / platform requires a commander to undertake tactical responsibilities, their roles and responsibilities are to be set, documented (with formal levels of training being provided) and assessed.

71. **Use of Dual-Purpose Vehicles in a Troop-Carrying Vehicle Role**. To meet Defence capability, a member of the armed forces holding a valid driving entitlement for the category of vehicle being driven may drive the vehicle in a DPV role and carry passengers in the vehicle's cargo area. Non-armed forces personnel **shall** require a category D1 or D driving licence entitlement, or local equivalent to drive a DPV / TCV in its passenger carrying role.

72. **Driver licencing**. The driver holds an appropriate driving licence for the type of DPV used, which is dependent on the vehicle's MAM:

a. vehicle MAM less than 3.5-tonnes requires a category B licence;

b. vehicle MAM between 3.5-tonnes and 7.5-tonnes requires a category C1 licence;

c. vehicle MAM over 7.5-tonnes requires a category C licence.

Note. The military tends to use terms based on the carrying capacity of a vehicle, which is less that its MAM (which is both the vehicle's weight and carrying capability). The MAN SV 6-tonnes has a carrying capability of 6-tonnes, so its MAM exceeds 7.5-tonnes making it a category C vehicle not a C1 vehicle.

73. **Driver training and experience**. The driver of a TCV is to be a suitably qualified and current individual and be deemed competent to carry passengers. Prior to being permitted to drive a DPV in a passenger carrying role, it is essential that those managing drivers are satisfied that the driver has a level of experience commensurate with driving the vehicle unsupervised. Those managing drivers **should** therefore ensure:

a. training is provided to demonstrate their ability to drive effectively, with appropriate consideration to passenger comfort and safety;

b. training is to be based on:

(1) being provided by a qualified instructor;

(2) a route which includes, where appropriate, access to and the use of a combination of:

(a) A and B roads;

(b) motorways and dual carriageways;

(c) urban, rural, and cross-country environments.

c. by day and night;

d. in any weather condition;

e. being assessed by a qualified assessor.

74. **Appropriate seating**. Those responsible for the management or control of an activity requiring passengers to be carried in the rear cargo compartment of a DPV **should** make adequate arrangements to make sure that the vehicle used is correctly adapted for the carriage of personnel, in that:

a. only approved seating is used and is fit for purpose;

b. all seating is fitted by appropriately trained personnel;

c. each passenger has a seat and is to remain seat while the vehicle is in motion.

75. **Purpose of carrying passengers**. The carriage of passengers is for naval, army or air force purposes only.

76. **Passenger seating**. All passengers are to be provided with appropriate fitted and secure seating, including a seatbelt or safety harness, which is to be worn while the vehicle is in motion. The cargo compartment of the vehicle used to carry passengers is also to be fitted with appropriate weather protection.

77. **Passenger supervisor**. Passengers carried in the rear compartment of a DPV are always to be supervised. Prior to the movement of the vehicle a passenger supervisor is to be nominated.

78. **Passenger safety briefing**. Prior to carrying passengers, the driver or senior passenger or crew member is to provide a safety brief to all passengers. The brief **should** cover:

a. the need to sit in an appropriate seating position;

b. wearing of appropriate seatbelts or harness;

c. stowage and security of equipment;

d. nomination of a passenger supervisor;

e. passenger movement when vehicle is in motion;

f. contact with driver / crew;

g. exits, action on emergencies;

h. location of safety equipment and fire extinguishers.

79. **Routes of Public Access**. ROPA are defined as any ‘road’ or any other ‘way’ by which a member of the public may lawfully and legitimately traverse the Defence estate. A driver of a MOD provided vehicle is required to hold the correct driving licence category for the vehicle being driven, as defined in regulation 514 Sub-clause 1.

80. ROPA include the following:

a. **Road** – means any highway and any other road (or way) to which the public has access and includes bridges over which a road passes;

b. **Bridleway** – means a way over which the public have the following, but no other, rights of way: a right of way on foot and a right of way on horseback or leading a horse, with or without a right to drive animals of any description along the way;

c. **Footpath** – means a way over which the public have a right of way on foot only;

d. **Byways**:

(1) **A Byway Open to All Traffic** – means a highway over which the public is entitled to travel on foot, horseback, or pedal cycle and by wheeled vehicles of all kinds, including horse-drawn vehicles, but which is used by the public mainly for walking or for riding;

(2) **Restricted byway** – means a highway over which the public have restricted byway rights, with or without the right to drive animals of any description along the highway, but no other rights of way. "Restricted byway rights" include a right of way on foot, on horseback or leading a horse and a right of way for vehicles other than mechanically propelled vehicles (this includes a right of way for pedal cycles and horse drawn vehicles).

e. **Cycle lane** – means part of a carriageway marked with a formal lane marking and allocated for use by cyclists;

f. **Cycle track** – means a path with a right of way for all types of pedal cycles (not mopeds), including electrically-assisted cycles, with or without a right of access on foot;

g. **Permissive path** – is not a public right of way but the public can use it with the permission of the landowner;

h. **Green lane** – this term has no legal meaning but is used as a physical description of lanes that are vegetated underfoot or enclosed by hedges hence the 'green'. The term is also commonly used for unsurfaced county roads, many of which are now shown on Ordnance Survey maps. Any individual 'green lane' might be a footpath, bridleway, restricted byway, byway, or road, or have no public rights on it at all;

i. **Roadways and driveways** – including car parks which may be lawfully and legitimately access by the general public;

j. **Quiet lanes** – means minor rural roads or networks of minor rural roads appropriate for shared use by walkers.

81. **Military vehicle compliance**.

a. **Fully compliant**. These would be vehicles which are fully compliant with current legislation, such as the Road Vehicles (Construction and Use) Regulations 1986 or the Road Vehicle Lighting Regulations 1989.

b. **Certified as compliant via the LEC process**. Vehicles in this category are those which do not meet all applicable legislative requirements but have been certified as safe to operate through the LEC process.

c. **Non-Compliant with legislation or not certified via LEC**. Vehicles which do not meet legislative requirements and have not been certified via the LEC process. This includes vehicles which may have had LEC certification but have subsequently been modified in such a way that the LEC certification needs to be re-applied for.

	82. **Behind the wire**. There will be some areas on the Defence estate where the public do not have access ("behind the wire"), but where members of the wider Defence community (families, etc) will have authorised access for example, some Military Barracks and Operational Military Air Stations etc. For these sites, the responsible person **should** make sure that there are appropriate local orders and arrangements in place to mitigate the risks associated with vehicle movement near the wider Defence community i.e., access to Married Quarters, Medical / Welfare Facilities, Nurseries, etc.
Further Guidance	JSP 815: Defence Safety Management System JSP 816: Defence Environmental Management System JSP 800, Vol 5 (Internal MOD access only) JSP 375 Management of Health and Safety in Defence

513 - Use of Operational Military Vehicles

Regulation	Those planning, managing, supporting, or operating Operational Military Vehicles (OMV) **shall** make sure that arrangements are in place to facilitate the safe use of the vehicle on public roads.
Sub-clauses	1. **Planning and control**. Those responsible for the use of OMV on public roads **shall** make sure that all activity is appropriately planned and controlled, including route selection and notification to local authorities. 2. **Management**. Those responsible for the use of OMV on UK public roads **shall** make sure that: a. attendants are provided where appropriate; b. escorts **shall** be provided for movement of OMV which exceed 3.5-metres in width. Consideration **shall** be given to the use of escorts for all other OMV; c. where there is a requirement to escort: (1) personnel **shall** be appropriately trained, suitably equipped and have clearly defined roles and responsibilities; (2) escort vehicles **shall** be fully compliant with legislation. 3. **Marking and lighting of OMV**. Those responsible for the use of OMV on UK public roads **shall** make sure that: a. where a vehicle exceeds 2.6-metres in width, the extreme edges of the vehicle **shall** be appropriately marked; b. any forward, rearward or lateral projection **shall** be appropriately marked; c. where a vehicle exceeds 2.9-metres in width or limited to a maximum speed of less than 25-miles per hour, it **shall** be fitted with, and use amber warning beacons; d. where a vehicle exceeds 3-metres in height appropriate warning labels, or other documentation **shall** be provided to the driver and commander; e. where the vehicle is being used on a public road, in a non-operational environment, it **shall** display a minimum of dipped beam to the front and taillights to the rear.
Provenance	The Road Traffic Act 1988. The Road Vehicles (Authorisation of Special Types (General) Order) 2003. The Road Vehicles (Construction and Use) Regulations 1986. Health and Safety at Work etc. Act 1974. The Management of Health and Safety at Work Regulations 1999. Provision and Use of Work Equipment Regulations (PUWER) 1998.

	Defence capability requirements demand that the MOD OMV have unique characteristics; particularly in relation to weights and dimensions, which often exceed national standards. These characteristics can also have a detrimental effect on handling and visibility and appropriate measures are required to reduce the impact on other road users. This regulation outlines Defence specific requirements to compliment legislation while putting in place Defence regulation to make sure that DEDs are appropriately managed, and that Defence has suitable controls in place for this high hazard activity.
Acceptable Means of Compliance	1. **Planning and control of OMV**. Most MOD provided vehicles can use public roads without authorisation or restrictions being placed on them. Others, due to their size or addition of weapon systems, armour, or other projections, exceed the normal criteria set by the Road Vehicle (Construction and Use) Regulations 1986. 2. **Responsibilities**. All drivers, commanders, and M&T Managers of OMV, and in particular 'oversized vehicles' have a responsibility to understand the difficulties involved in driving or manoeuvring such vehicles, so that they do not pose a danger to other road users. 3. **Oversize vehicles**. A vehicle will be classified oversize if any part of it causes it to be wider[1] than, longer than, heavier than or higher than the dimensions shown at Annex A – Table 1. While a general exemption is applied to operational military vehicles which are used to carry out strategic, tactical, service, or administrative tasks (which also includes training for these tasks) certain conditions **should** still be met if the vehicle is to be used on the public road. Annex A – Table 2 provides an overview of additional requirements for vehicles exceeding normal width limitations. 4. **Liaison with civilian authorities**. While an oversize vehicle can travel on a public road, legislation and good practice requires that the police and other civil authorities be informed. As the vehicle size increases, there is a requirement to liaise with key authorities (highway, road, bridge, electricity, and gas, etc.) to make sure that key structures can take the vehicle's weight and dimensions to prevent damage to key services. For larger vehicles, prior permission may be required from the Highways Agency and DfT in addition to the police. 5. **Notice to police**. A minimum of 2 clear working days' notice is required by the chief officer of police for each area within, or through which, the vehicle will operate. A notice **should** contain details of the vehicle(s) and the proposed dates, times, and routes in each police area where: a. there is a lateral projection on either side which exceeds 305-millimetres; b. the width of the vehicle exceeds 2.9-metres; c. a rigid vehicle exceeds 18.75-metres in length; d. the length of any forward or rearward projection exceeds 3.05-metres.

[1] The width of a vehicle is calculated as being the widest lateral point on either side of the vehicle and does not include wing mirrors, a fixed front snow plough, tyre distortion or lights and reflectors.

6. **Liaison with local authorities**. For the movement of larger vehicles advance warning of the move **should** be provided to the appropriate Highways Authority and / or DfT. Where required, the following information is to be provided as a minimum:

a. date and outline times of movement – including estimated finish time;

b. departure address and postcode;

c. destination address and postcode;

d. route of journey;

e. estimated duration of travel;

f. staging points;

g. number of vehicles;

h. vehicle types and Vehicle Registration Number (where available);

i. unit movement control number;

j. convoy commander details and mobile contact number;

k. unit control room contact number (Tel, fax and e-mail).

7. **Convoy movement**. Where oversized vehicles are being moved as part of a convoy, all movement **should** be cleared.

8. **Management requirements for OMV**. All use of OMV **should** be appropriately managed to make sure that the risks posed to other road users are ALARP. Mitigation **should** include the use of escorts and attendants.

9. **Requirement for attendants**. Attendants **should** be provided for oversize vehicles exceeding 3-metres in width. The role of the attendant is to provide the driver with feedback on potential hazards and warn them, or any other person, of potential hazards likely to be caused by the presence of the oversize vehicle(s). The attendant **should** be competent, with appropriate knowledge, skills, and experience in respect of the vehicle and its use. All attendants **should** be briefed on their role, the route being taken, and hazards identified in the risk assessment. Any trained member of the vehicle crew, including the vehicle commander, may act as the attendant provided they have been briefed on their role.

10. **Additional attendants**. Where three or more vehicles are travelling together in convoy, attendants **should**, as a minimum, be positioned in the first and last vehicles. Additional attendants **should** be considered dependant on the number of vehicles in the convoy, the route being used and potential hazards.

11. **Escort requirements**. The primary function of the escort vehicle is to warn other road users, including pedestrians of the presence of an oversize vehicle, as well as to maintain on-going contact with the driver. Whenever escort duties are being performed, the communications link between the escort vehicle and the oversize vehicle **should** not be broken. To make sure the safety of crews, the public and other road users:

a. oversize vehicles exceeding 3.5-metres wide, require an escort vehicle;

b. for oversize vehicles between 2.9-metres and 3.5-metres wide, the use of escort vehicles **should** be considered as part of the risk assessment process for the move;

c. **For Combat Manoeuvre Centre only**. Where vehicles up to 4-metres wide and being used for driving licence acquisition training, the non-use of escort vehicles **should** be considered as part of the risk assessment process. This **should** be supported by unit standing orders or instructions as appropriate and be approved by local police and highway authorities.

12. **Use of escort considerations**. The use of oversize vehicles on the public road increases the risk to those using the roads. As a minimum, the following **should** be assessed when considering the use of escort vehicles:

a. experience of driver and commander;

b. length of journey;

c. types (width) of road being used;

d. routes and potential hazards (both rural and urban);

e. pinch points or narrow roads;

f. road works or traffic diversions;

g. likely density of traffic and time of day (rush hour);

h. weather conditions (high winds, rain, sleet, snow, bright or low sun);

i. other vulnerable road users (pedestrians, cyclists, children, etc.).

13. **Escorted moves**. Where an escort is deemed necessary for the movement of an oversize vehicle, the escort vehicle **should** be sited as follows:

a. **Single oversize vehicle movement**:

(1) on motorways and dual carriageways, an escort vehicle **should** be positioned to the rear of the oversized vehicle, at a distance to give adequate warning to other road users;

(2) on two-way roads and at traffic islands or intersections, an escort vehicle **shall** be positioned to the front of the oversize vehicle to give adequate warning to other road users.

b. **Multiple oversize vehicle movement**. Where two or more oversize vehicles are being moved, an escort vehicle **should**, as a minimum, be positioned to the front and rear of the group, to give adequate warning to other road users.

14. **Non-escorted moves**. For oversize vehicles between 2.9-metres and 3.5-metres wide, where it has been assessed that the use of escort vehicles is not considered necessary, those responsible for the move **should** be satisfied the risk of not using an escort is justifiable, and **should** make sure that the driver, crew commander and crew are fully briefed. The briefing **should** cover all risks associated with the route being used, additional risks associated with the movement of an oversize vehicle and actions to be taken in the event of an incident.

15. **Escort duties and responsibilities**. The primary function of an escort is to warn other road users of the presence of the oversize vehicle. Escorts have no legal powers to stop or direct other road users. They are to:

a. make sure that special instructions or restrictions, such as apply to bridges, tunnels, or level crossings, are adhered to;

b. act as a point of contact and be the communications interface between the vehicle / convoy and the police, relevant authority, and emergency services as required;

c. alert the emergency services in the event of an incident;

d. place traffic cones and warning beacons round the oversize vehicle when stationary to warn other road users;

e. make sure the escort vehicle is 'fit for purpose' and is fully compliant.

16. **Escort skills and qualifications**. To meet legislative and Defence requirements, an escort **should**:

a. be a minimum of 21 years old;

b. hold a category B driving entitlement;

c. be able to speak and read English;

d. be competent through training and / or experience in the movement of oversize vehicles;

e. have a basic knowledge of first aid;

f. be able to effectively use a fire extinguisher;

g. be issued with a long-sleeve high-visibility fluorescent yellow jacket (conforming to BS EN 471) which **should** always be worn when the escort is outside the escort vehicle.

17. **Marking and lighting of OMV**. Where an OMV is being used on a public road, in a non-operational environment, it is always required to display a minimum of dipped beam to the front and taillights to the rear.

18. Where a vehicle exceeds 2.6-metres in width, the extreme edges of the vehicle **should** be fitted with reflective markings.

19. Where any part of a vehicle (less its mirrors):

a. has a forward or rearward projection which exceeds 1-metre, side marker boards are be displayed on the projection;

b. has a forward or rearward projection which exceeds 2-metres, side and end marker boards are to be displayed on the projection;

c. has forward or rearward projection which exceeds 3-metres, 1 side marker board is to be fitted each side of the projection so that it is at least within 50-millimetres of the end of the projection (i.e., point furthest from the vehicle);

d. has a projection which exceeds 4.5-metres to the front or 5-metres to the rear, additional side marker boards are to be fitted each side of the projection. The distance between the marker boards is not to be more than 2.5-metres for forward projections and 3.5-metres for rear projections between the vehicle and end of the projection. The distance between the lowest point of each additional side marker board and the road surface is not to be more than 2.5-metres and is to be visible to other road users on that side of the projection;

e. has a lateral projection 305-millimetres, side markers are to be fitted so that in respect of each side of the vehicle, one marker is visible from the front of the vehicle and one marker is visible from the rear of the vehicle.

	20. **Marker tape**. Where it is not practicable to fit side marker boards the projection / vehicle is to be marked with tape so that the widest point is clearly visible from the front, rear, and side of the vehicle. The tape **should** be made of day-glow, fluorescent, or retro-reflective material which is approved by the BSI or equivalent EU standard and be: a. red – to the rear of the vehicle; b. yellow – to the side of the vehicle; or c. white – to the front of the vehicle. 21. **Amber warning beacon**. Vehicles more than 2.9-metres in width or limited to a maximum speed of less than 25-miles per hour, are to be fitted with and use amber warning beacons. Vehicles used as an escort for oversize vehicles are also be fitted with and use amber warning beacons. 22. The light from at least one beacon (not necessarily the same beacon) **should** be visible from any point at a reasonable distance from the vehicle (or trailer drawn by it). The light emitted from the beacons **should** be visible to other road users throughout a 360º plane. The beacon(s) **should** be fitted so that it is at least 1,200-millimetres from the ground and **should** provide a constant flash rate of between 60 flashes and 240 flashes per minute. 23. **Visibility of markings**. No obligatory lamp, reflector or rear marking on a vehicle **should** be obscured by any other part of the vehicle, its equipment or load carried; they **should** always all be visible to other road users. 24. **In-cab height warning**. Where the height of an oversize vehicle exceeds 3-metres, appropriate warning labels fitted in the driving compartment, or other documentation warning the driver of the actual height of the vehicle[2] **should** be clearly visible. The information provided **should** be in feet and inches (or feet and inches and metres). The size of the text on the notice **should** be at least 40-millimetres. Where the notice shows both feet / inches and metres the height conversion calculation **should** be accurate. 25. In addition, the driver and crew **should** be provided documents (such as maps) giving details of the route and the height of bridges or other overhead obstructions.
Further Guidance	JSP 815: Defence Safety Management System JSP 816: Defence Environmental Management System

[2] The total height shown on the notice should not be less than the actual height of the vehicle or roof mounted equipment nor be more than 150 mm above that height.

Annex A to Regulation Number 513 - Use of OMV

Table 1: Maximum Vehicle Dimensions (UK)

Dimension	Description	Maximum Permitted
Length - Rigid Vehicles	Vehicle (not a bus)	12-metres
	Bus (2 axles)	13.5-metres
	Bus (more than 2 axles)	15-metres
	Track-laying vehicles	9.2-metres
Length - Vehicle Combinations	Motor vehicle and trailer (not articulated)	18.75-metres
	Articulated vehicle	16.5-metres
	Articulated vehicle (carrying containers or swap bodies up to 45-feet as intermodal transport)	16.65-metres
	Articulated vehicle (low loader)	18-metres
Length - Trailers	Drawbar trailer with at least four wheels drawn by a vehicle with a gross weight of more than 3,500-kilograms	12-metres
	Other drawbar trailers	7-metres (excluding drawbar)
	Semi-trailer	12-metres (kingpin to rear)
	Semi-trailer carrying containers or swap bodies up to 45-feet as intermodal transport	12.15-metres (kingpin to rear)
Width	Motor vehicle or trailer	2.55-metres
	Refrigerated vehicle or trailer	2.60-metres
	Trailer towed by a vehicle exceeding 3,500-kilograms plated weight	2.55-metres

Dimension	Description	Maximum Permitted
	Any other trailer	2.3-metres
The overall width of a vehicle / trailer (or part thereof) **should** not exceed 6.1 metres		
Gross Weight (The gross weight of a vehicle is determined by axle spacing – these figures are given as a generalisation)	**Rigid vehicle with**: 2 axles 3 axles 4 or more axles	 18,000-kilograms 25,000-kilograms 30,000-kilograms
	Tractor Unit: 2 axles 3 or more axles	 18,000-kilograms 25,000-kilograms
	Trailer (not semi-trailer or centre-axle) with: 2 axles 3 or more axles	 18,000-kilograms 24,000-kilograms
	Vehicle Combinations: Rigid vehicle towing a trailer with: 3 Axles 4 Axles 5 Axles 6 Axles	 22,000-kilograms 30,000-kilograms 34,000-kilograms 41,000-kilograms (Note – some vehicle / trailer combinations may operate to 44,000-kilograms)
	Articulated vehicles with: 3 Axles 4 Axles 5 Axles 6 Axles	 26,000-kilograms 36,000-kilograms 40,000-kilograms 41,000-kilograms (Note – some vehicle / trailer combinations may operate to 44,000-kilograms)
Height		4-metres. See also Maximum Heights

Dimension	Description	Maximum Permitted
Sideways Projection		305-millimetres
Forward / Rear Projection		3.05-metres
Maximum Heights	In the UK, only buses are governed by height restrictions. Due to the vast range of vehicles and ancillary equipment the MOD uses this as a maximum height for planning and control purposes.	4.00-metres (Europe only) Vehicles exceeding 3-metres overall height (including any part of a load / eqpt) may be subject to other requirements such as in-cab warning notices or easily accessible route details to eliminate risk of bridge strike. See para 3.7.

Table 2: Width Requirements

Vehicle Width	Escort Required	Attendants Required	Inform Police	Inform HA	Remarks
Over 2.9-metres			Y		Escorts **shall** be considered*
Over 3-metres		Y	Y		Escorts **shall** be considered*
Over 3.5-metres	Y	Y	Y		
Over 5-metres	Y	Y	Y	Y	
Over 6-metres	Police	Y	Y	Y	

* See AMC paragraphs 2.3 – 2.8

514 - Driver Management

Regulation	Those planning, managing, supporting, or operating MOD provided vehicles **shall** put in place suitable arrangements to make sure that drivers are appropriately trained, licenced, and managed.
Sub-clauses	1. **Licensing**. Those managing vehicle related activities **shall** make sure that all drivers hold a valid driving licence, are formally trained, and certified to drive or operate each vehicle category and / or platform type. 2. **Driving overseas**. Those managing vehicle related activities **shall** make sure that all drivers are appropriately trained and certified to drive when employed overseas. 3. **Young or inexperienced drivers**. Those managing vehicle activities **shall** make sure that individuals who fall below the normal age requirements for driving licence acquisition, or who have less than 2-years driving experience, are provided with additional training regarding licence limitations and / or conditions of vehicle use. 4. **Driver continuation and professional competence training**. Those managing vehicle related activities **shall** make sure that drivers are provided with continuation training commensurate with their driving activities and role. 5. **Visiting forces**. Those planning, coordinating, supporting or undertaking transport activities involving visiting forces to the UK, or where MOD is operating overseas, **shall** make sure that: a. all personnel, and where appropriate their families, are aware of how legislation affects their use of vehicles, associated driving activities and expectations; b. where an individual is required to drive or operate a vehicle belonging to another nation, they are formally trained and certified. 6. **Driver responsibilities**. Management arrangements **shall** be in place to make sure that all personnel driving vehicles on MOD business are aware of their responsibilities and fully comply with legislation and associated Defence regulations and standards.
Provenance	Regulations (EC) No 561/2006. Transport Act 1968. The Community Driver's Hours and Recording Equipment Regulations 2012. Vehicle Drivers (Certificate of Professional Competence) Regulations 2007 SI 2007/605. The Road Traffic Act 1988. The Road Traffic Regulations Act 1984. The Health and Safety at Work Act 1974. The Management of Health and Safety at Work Regulations 1999. Provision and Use of Work Equipment Regulations (PUWER) 1998. The Motor Vehicles (Driving Licences) Regulations 1999 (SI 1999/2864).

	Visiting Forces and International Headquarters (Application of Law) Order 1999. Road Traffic (New Drivers) Act 1995. Although there are DEDs available in relation to UK legislation, it is a Defence requirement that all MOD driver activity is managed appropriately to make sure where exemptions in law exist, appropriate standards are maintained. Legislative requirements are used as the baseline for developing and maintaining Defence standards. This regulation outlines Defence specific requirements to compliment legislation while putting in place conditions to make sure that DEDs are appropriately managed, and that Defence has suitable controls in place.
Acceptable Means of Compliance	1. **Licensing**. Those managing or controlling transport activities are to have arrangements in place to make sure that drivers of MOD provided vehicles hold a valid driving licence entitlement appropriate to the vehicle category to be driven. When undergoing driving licence acquisition training a valid provisional driving licence for the category of vehicle being driven is to be held. Due consideration **should** be given to the age and experience of a driver when allocating tasks. 2. **Driving entitlement**. An individual **should** only drive or operate a vehicle for which they have: a. an appropriate driving licence entitlement (full or provisional[5]): (1) for UK personnel this is to be a driving licence issued by the appropriate Licensing Authority, such as DVLA or Driver and DVA NI; (2) for non-UK personnel overseas, this is to be a driving licence for the vehicle being driven, issued by the national licensing authority for that country. b. received formal training, including platform specific training. 3. **Entitlement to carry passengers in dual-purpose vehicles**. Those managing transport activities **shall** make sure that where a member of the armed forces is required to drive a dual-purpose vehicle, that individual **shall**: a. hold a valid driving entitlement for the category of vehicle being driven; b. be appropriately trained to drive the vehicle in a passenger carrying role; c. make sure that appropriate seating is utilised. 4. Those managing or controlling transport activities are to have arrangements in place to make sure that all drivers undertake vehicle / platform specific training to allow them to drive and operate the vehicle safely. As a minimum this training **should** cover: a. appropriate legislation; b. vehicle characteristics; c. operating capability; d. day / night driving; e. off road / cross country driving as appropriate; f. use of ancillary equipment.

[5] An individual with a provisional licence entitlement may only drive when accompanied by a qualified instructor (See also regulation 505).

	5. Evidence of training **should** be supported by a certificate, detailing the type of training conducted and the entitlements afforded. The certificate **should** be in the form of a drivers permit or electronic equivalent. 6. **Driver licence checks**. Those managing or controlling transport activities **should** make sure that personnel who are required to drive and operate MOD provided vehicles have their licences and permits checked on a regular basis to make sure they are valid and appropriate for the type of vehicle being used. The driver **should** carry their licence and any associated driving permit whenever driving a MOD provided vehicle. Overseas commands **should** provide details of acceptable driving licence requirements for all locally employed civilians. 7. **Court Action**. If an individual commits a driving offence which may result in the loss of their driving entitlement, consideration **should** be given to remove them from driving duties until all relevant court proceedings have concluded and sentencing confirmed. 8. **Driving overseas.** Those managing or controlling transport activities overseas are to have arrangements in place to make sure that drivers are in possession of all driving documentation required by the host nation. This **could** include international driving permits, licences, insurance certification, or additional vehicle documentation requirements. 9. Unless specific instruction is issued to the contrary, by the command / formation HQ as part of an administration procedure, UK personnel are not to surrender their UK driving licence for a local equivalent. 10. All personnel required to drive MOD provided vehicles overseas **should** receive sufficient training to reflect the national requirements to enable them to drive and operate safely. Training **should** include knowledge of national legislation, traffic regulation and traffic signs. 11. Evidence of training **should** be supported by a certificate, detailing the type of training conducted and its validity. The certificate **should** be in the form of a drivers permit or electronic equivalent. 12. **Young or inexperienced drivers**. Those managing transport activities **shall** make sure that individuals who fall below the normal age requirements for driving licence acquisition, or have less than 2-years driving experience, are provided with additional training regarding licence limitations and / or conditions of use. 13. Those responsible for the management or control of activity **should** be aware of, and have arrangements in place for administrative action where: a. a driver under 21-years of age holds a vocational licence entitlement and gains three or more penalty points, that driver will have their vocational entitlement revoked. In these circumstances, the driver will be unable to regain their vocational licence entitlement until they reach the age of 21, or a longer period as determined by the SofS; b. a driver gains more than six penalty points within 2-years of passing their driving test. In these circumstances, their licence will be automatically revoked and revert to provisional status.

	14. Those responsible for the management or control of activity are to have appropriate arrangements in place to make sure that members of the armed forces, who are permitted to drive vehicles at a younger age, are provided with additional training to make sure they are aware of licence limitations or conditions associated with such use. Such training **should** include: a. the type(s) of vehicle they may drive for armed forces purposes; b. the consequences of gaining penalty points on their licence; c. the actions to be taken to inform the necessary authorities of any loss of licence prior to reaching national driver age limits. 15. **Military personnel riding motorcycles**. Those managing transport activities **should** make sure that members of the armed forces, who are permitted to ride more powerful motorcycles at a younger age than a civilian, **should** be provided with additional training to make sure the safety of the individual and others. 16. **Driver continuation and professional competence training**. Those managing or controlling transport activities are to have appropriate arrangements in place to make sure that all drivers of MOD provided goods and passenger vehicles fully comply with the legislative requirements for vocational drivers, in so far as is reasonably practicable. 17. Those managing or controlling transport activities **should** have appropriate arrangements in place to make sure that personnel who are required to drive and operate MOD provided vehicles undertake training commensurate to their driving activities. Arrangements **should** include the requirement for personnel holding vocational entitlements to receive vehicle / platform specific training to allow them to drive and operate the vehicle safely. 18. All training **should** be recorded, and records be readily available for audit. 19. Training **should** include (but is not limited to): a. Highway Code for the area the driver is required to operate; b. vehicle capabilities and handling characteristics; c. day / night driving in the rural and urban environment; d. off road / cross country driving (where applicable); e. application of driver's hours and duty time policy; f. driver responsibilities; g. safe loading and load restraint; h. conversion on all vehicle / platform variants (to include both left and / or right-hand drive vehicle / platform variants where held). 20. Where training is conducted on a Right Hand Drive variant of a vehicle additional training **should** be completed on any Left Hand drive variant held before a driver is permitted to drive the vehicle and vice versa. Particular attention **should** be given to the different road position and field of view that the driver would experience when sat in an opposite driving position. 21. Where possible initial vehicle continuation training **should** be completed in a controlled environment before driving on the public roads to minimise risk and allow the student to gain confidence.

22. Those responsible for the management or control of activity **should** make sure that all commanders undertake vehicle / platform specific training to allow them to command and operate the vehicle safely. As a minimum, training **should** cover:

a. vehicle characteristics;

b. operating capability;

c. day / night driving;

d. off road / cross country driving as appropriate;

e. conduct of crew;

f. use of ancillary equipment;

g. emergency procedures.

23. Evidence of training **should** be supported by a certificate, detailing the type of training conducted and the entitlements afforded. The certificate **should** be in the form of a drivers permit.

24. **Management of training deficiencies**. Arrangements **should** be in place to manage training deficiencies in accordance with Defence Training Policy (JSP 822 Volume 2 – Individual Training). Until fully qualified, an individual **should** not be permitted to drive or operate equipment unless the specific activity is unaffected by the training deficiency. All training deficiencies **should** be completed under the supervision of a qualified instructor.

25. **Visiting forces**. Those planning, coordinating, supporting or undertaking transport activities involving visiting forces to the UK, or where MOD operates overseas, **should** make sure that arrangements are in place so that all personnel, and their families, are aware of any appropriate driving legislation, regulations, and standards. Awareness training **could** include, but is not limited to:

a. local rules of the road and acceptable driving standards;

b. local highway code requirements and conditions;

c. driver licensing and International Driving Permit requirements;

d. medical or age restrictions;

e. registration and use of privately-owned vehicles;

f. comparisons between home and visiting country legislation;

g. local requirements regarding:

(1) breakdown procedures;

(2) accident reporting and at scene procedures;

(3) insurance;

(4) refuelling.

h. vehicle maintenance, servicing and vehicle testing requirements;

i. drink / drug and driving legislation;

j. vehicle and road speed limits.

	26. When training, operating, or exercising with visiting troops using their own vehicles, or associated equipment, in the UK a legislation compliance check **should** be undertaken prior to commencement of any activity to clarify how UK legislation may apply or effect the visiting force's use of their vehicles. 27. Where there is a requirement for visiting forces to use MOD provided vehicles and equipment, or where MOD personnel are required to use or operate vehicles provided by a host nation, those planning, coordinating or supporting the activity **should** have in place suitable arrangements for the provision of formal training and certification, where appropriate, to make sure the safe use of that vehicle. 28. **Driver responsibilities**. Management arrangements are to be in place to make sure that all personnel driving vehicles on MOD business are aware of their responsibilities. All such use is to be fully compliant with legislative and Defence requirements. Drivers are required by law to make sure the vehicle they are using is in a roadworthy condition and any load or ancillary equipment is safe and secure. 29. **Pre-use vehicle checks**. Prior to a MOD provided vehicle being used a safety check **should** be conducted by the driver to make sure it is fit for purpose and does not pose a danger to themselves, their passengers or other road users. It is therefore essential that it is checked in line with the manufacturer's specifications and vehicle user handbooks. Particular attention **should** be paid to seat belts, steering, tyres / tracks, wheel nuts, brakes, lights, mirrors, windscreen cleanliness and speedometer. A vehicle **should** not be used if a fault is found which renders it unfit for use. 30. **Start-up procedures**. Any person intending to start or operate a MOD vehicle **should** be correctly positioned in the driver's seat and in full control prior to commencing start-up procedures. 31. **Speed limits and vehicle speed restrictions**. Management procedures **should** be in place to make sure that drivers are aware of any applicable speed limits associated with the vehicle they are required to drive. Due to their design, configuration or types of tyres used, many MOD provided vehicles are subject to speed restrictions, which are often lower that national limits. Drivers of MOD provided vehicles **should** therefore be aware of any speed restriction placed on the vehicle they are driving and make sure that this is not exceeded. 32. **Use of privately-owned vehicles**. Where Defence policy allows an individual to use a privately-owned vehicle for Defence business the driver **should** provide evidence that the vehicle is fit for such use. This **should** include providing details of: a. driving licence validity; b. the vehicle's roadworthiness and valid MOT Certificate; c. the vehicle is correctly taxed; d. the driver is insured as a named driver for the vehicle and appropriate business use cover is provided.
Further Guidance	JSP 815: Defence Safety Management System JSP 816: Defence Environmental Management System

515 - Management of Driver's Hours

Regulation	Those planning, managing, supporting, or operating MOD provided vehicles **shall** make sure that appropriate arrangements are in place so that a driver's hours are controlled and managed in line with Schedule 1 of this regulation.
Schedule	Schedule 1: Management of Driver's Hours (Contained in the DLSR Regulation 515 Manual (Internal MOD access only)
Provenance	Regulations (EC) No 561/2006. Transport Act 1968. The Community Driver's Hours and Recording Equipment Regulations 2012. Vehicle Drivers (Certificate of Professional Competence) Regulations 2007 SI 2007/605. The Road Traffic Act 1988. The Motor Vehicles (Driving Licences) Regulations 1999 (SI 1999/2864). Visiting Forces and International Headquarters (Application of Law) Order 1999. Road Traffic (New Drivers) Act 1995. The hours of work for drivers of goods and passenger vehicles on journeys within the EC are, depending upon the type of vehicle and operation, governed by Domestic (Transport Act 1968 (Part VI) (as amended), the EC Regulations (EC Regulation 561/2006) (as amended), the Road Transport (Working Time) Regulations 2005 (as amended) and the Community Driver's Hours and Recording Regulations 2012. Their purpose is to improve road safety by enforcing the hours driven, the rest taken during the working period and how this is recorded. However, while the MOD is granted an exemption from strict compliance with legislation, it chooses to apply the spirit but widen the concept to include all personnel that drive any type of MOD provided vehicle or the activity they are involved in. This is done in the interest of safety and as a duty of care measure, across the whole Defence domain. This regulation **should** be read in conjunction with MOD working time rules for employees and does not confer any authority for overtime.
Further Guidance	JSP 815: Defence Safety Management System JSP 816: Defence Environmental Management System **MT Forms** (contained in the): DLSR Regulation 515 Manual (Internal MOD access only) F/MT 101: Certificate of Dispensation from Normal Operating Standards. F/MT 104: Declaration of Understanding – Driving After Flights. F/MT 105: MOD Driver's Hours Record Card. F/MT 108: Military Risk Assessment – Dispensation from Driver's Hours Normal Operating Standards. F/MT 109: Reserve Forces Certificate of Employment. F/MT 122: MOD Tachograph Regulations – Certificate of Exemption.

516 - Design Requirements for Transportability

Regulation	Those responsible for the procurement and through life management of Defence equipment **shall** make sure that arrangements are in place so that equipment is designed and constructed to meet the requirements for load restraint, recovery, and its safe transportation by any mode.
Sub-clauses	1. **Equipment design and construction**. Defence issued equipment, which is likely to be transported by road, rail, sea, or air **shall** have suitable recovery, restraint and lifting points designed, constructed, and tested in line with national and international legislation, and comply with NATO and Defence standards. 2. **Working Load Limits (WLL)**. The WLL of recovery, restraint or lifting points **shall** be provided or displayed. 3. **Restraint systems**. Those responsible for the procurement and through life management of Defence vehicles and major equipment **shall** make sure that: a. trials are conducted to develop a system for the safe restraint of the equipment during transport in line with the statement of user requirement for the vehicle or equipment, the environment(s) it is to be operated in and the mode by which the equipment may be transported; b. a Tie Down Scheme (TDS), including movement safety data, is provided for each mode of transport; c. where equipment undergoes modification or upgrade, the relevant TDS and documents providing related data are reviewed and amended to reflect changes of dimensions, weights, etc.
Provenance	The Road Traffic Act 1988. Road Vehicles (Construction and Use) Regulations 1986. Health and Safety at Work etc. Act 1974. The Management of Health and Safety at Work Regulations 1999. Lifting Operations and Lifting Equipment Regulations (LOLER) 1998.v Provision and use of Work Equipment Regulations 1998. Working at Height Regulations 2005. Department for Transport (DfT) Code of Practice Safety of Loads on Vehicles. European Best Practice Guidelines on Cargo Securing for Road Transport. BS EN 12195 Def Stan 00-3 – Design Guidance for the Transportability of Equipment. STANAG 4062: 2016 Sling and Tie Down for Lifting Tying Down Military Equipment for Movement by Land and Sea. Defence has a responsibility to make sure that all vehicles and major equipment delivered into service meet the requirements for safe movement by the modes and platforms anticipated to carry such vehicle or equipment.

	Legal requirements require that all loads be safely restrained and secured, whatever the journey. This is to protect personnel involved in loading, unloading, and driving the vehicle, together with other road users and pedestrians. The transport of vehicles and major equipment[1] is high hazard activity. The requirements of this regulation are designed to meet the conditions of Crown Enforcement Notices served on MOD due to previous breaches of legislation.
Acceptable Means of Compliance	1. **Equipment design and construction**. Safe movement will only be achieved by ensuring that all vehicles and equipment are designed to include to sufficient accessible load restraint points of sufficient rating. 2. Load restraint and load safety requirements are applicable to multiple consignments combined to form palletised loads or loads comprising of multiple pieces of cargo. This includes loads inside containers and / or vehicles with specifically designed cargo carrying compartments. The security of all items that comprise such a load and the safe handling characteristics of the transport platform **should** be considered for the entire journey. 3. Those responsible for the design or acquisition process and through life management for Defence equipment **should** include consideration of all relevant multi modal load gauges and load restraint requirements. For all modes of transport, the minimum restraint requirements to be applied **should** be in line with Def Stan 00-3 – Design Guidance for the Transportability of Equipment (Internal StanMIS access only). Any modification programme for in-MOD provided vehicles or equipment **should** include consideration for the provision / maintenance of restraint points. 4. **Road transport[2]**. The minimum restraint requirement for road movement **should** make sure that the load can be adequately secured to prevent the full weight (1G) of the load moving forward, half the weight (0.5G) of the load moving backwards and half the weight (0.5G) of the load moving sideways. 5. **Rail transport**. The minimum restraint requirement for rail movement **should** make sure that the load can be adequately secured to prevent the full weight (1G) of the load moving forward and backwards and half the weight (0.5G) of the load moving sideways. 6. **Air transport**. The restraint criteria for movement by air are divided into two main areas: Fixed Wing Aircraft and Rotary Wing Aircraft. The aircraft and cargo types will determine the minimum restraint requirements. Def Stan 00-3 (Internal StanMIS access only) **should** be consulted in the first instance for the relevant restraint criteria. Def Stan 00-3 (Internal StanMIS access only) **should** be consulted in the first instance for the relevant restraint criteria. 7. **Sea transport**. The minimum restraint requirement for sea movement **should** make sure that the load can be adequately secured to prevent the full weight (1G) of the load moving in any direction, including vertically upwards and downwards. Additional restraint considerations apply for military craft and shipping engaged in amphibious operations.

[1] In the context of M&T 'Major Equipment' refers to large assemblies or pieces of freight which, due to their size, construction or nature, require a bespoke restraint solution in order to facilitate safe transportation, or to document specific restraint requirements that may otherwise not be apparent. This **could** be anything from a high centre of gravity to, uneven weight distribution, equipment mounted on pneumatic tyres or is a sprung mass. For some items, their value, fragility or sensitivity may lead the equipment sponsor to determine that a TDS is required; this is especially the case for items that, if damaged in transit, would impact directly on the ability to deliver operational capability.

[2] The requirement to restrain a load applies equally to any MOD vehicle which carries any form of load or similar item.

	8. **Container transport**. The minimum restraint requirement for container movement **should** make sure that the load can adequately secured to prevent the full weight (1G) of the load moving in any direction, including vertically upwards and downwards. Where multi modal transport options are anticipated, restraint equal to the minimum standards for any single mode **should** be applied for all modes, for the entire journey. 9. **Load safety trials**. Where appropriate, suitable trials of vehicles, major equipment etc. **should** be undertaken to demonstrate that safe movement is achievable for the chosen modes of transport and to facilitate the development and publication of modal restraint system, slinging schemes, and movement data. Trials **should** include: a. aerial delivery platforms and under-slung loads that are new to service **should** be trialled to determine safe methods of movement in line with statements of requirement; b. vehicles and major equipment. Trials **should** be conducted on all vehicles or major equipment; c. a review of all trial data where equipment has been subject to in-service modification, including changes to original dimensions and / or other characteristics. 10. The conclusion to the trials **should** be the development and provision of movement data and an appropriate restraint system, or TDS, to compliment any future movement of that vehicle or equipment. 11. **Working Load Limit**. Where a vehicle, piece of equipment or materiel, is fitted with recovery, restraint or lifting points the maximum WLL which can be applied to that point **should** be displayed as close as is reasonably practicable so that it is easily identifiable. 12. The WLL **should** be displayed in kilograms or tonnes. 13. Where it is not possible to display the WLL as close to the point it refers, the WLL for all points **should** be provided in diagrammatic form in an appropriate documentation pack. 14. **Restraint systems**. The design of a restraint system **should** consider the requirements of all appropriate STANAGs / Def Stan and legislation relating to the type of equipment being carried and the mode of transport used. For all modes of transport, the minimum restraint requirements to be applied **should** be in line with Def Stan 00-3 – Design Guidance for the Transportability of Equipment (Internal StanMIS access only): a. details of the restraint system, including the TDS **should** be made available to all Defence personnel, contracted users or contracted transport operators involved in the movement of Defence equipment; b. the use of MOD approved restraint systems by Defence organisations, transport operators and transport managers are mandatory. For contracted transport operators, the approved restraint systems demonstrate a proven safe method of restraint for the mode of transport being employed and its use **should** be recommended;

	c. **Lack of a restraint system**. Where legacy in-service vehicles or equipment have no published restraint system, they **should** only be transported when sufficient documented information is available to enable the principles of load restraint to be applied. As a minimum, this **should** include reference to: (1) the characteristics of the vehicle or equipment to be transported, including suspension systems or moveable parts; (2) the weight and all relevant dimensions of the vehicle; (3) recognised and designated restraint points to be used, including restraint point capacity and type; (4) any other relevant detail that will allow the transport operator to achieve load safety; (5) suitably qualified, competent and current individuals at the point of loading and unloading to assist the transport operator.
Further Guidance	JSP 815: Defence Safety Management System JSP 816: Defence Environmental Management System TDS - STANAG 4062 Air Drop - STANAG 3548 Helicopter - STANAG 3542

Defence
Safety Authority

DSA DLSR Regulation and Certification

Land System Certification Regulations

Contents

600 Series – Land System Certification Regulations

Introduction

1. These regulations help provide a framework for ensuring that acceptable levels of Health Safety and Environmental Protection (HS&EP) are being achieved and sustained through the Land System Lifecycle.

2. Defence Land Safety Regulator (DLSR) 600 Series regulations should be read in conjunction with the 100 and 400 Series regulations.

Scope

3. Land Certification regulations currently only apply to in use and new vehicle Land Systems acquired or contracted by the MOD in the UK and overseas. The Accountable Person should complete an assessment to determine which of the Key Certification Areas should be applied.

4. Land Certification will focus on Key Certification Areas so that the risk to life and health is reduced by design through the proportionate application of Defence Land System Certification standards.

Land System Definition

5. The definition of a Land System can be found within the 400 Series – Land System Safety and Environmental regulations.

601 - Land Systems Certification

Regulation	The Accountable Person **shall** make sure that Certification requirements are identified against the Land System Key Certification Areas for all applicable Land Systems and this decision shall be justified and documented.
Provenance	2019 Defence Safety Authority Jackal Service Inquiry. 2021 Health, Safety and Environmental Protection Ajax Noise and Vibration review.
Acceptable Means of Compliance	1. The Accountable Person **should** make sure that Land Systems Certification activity begins at the appropriate stage of the Concept, Assessment, Demonstration, Manufacturer, In-Service, Disposal/Termination (CADMID/T) cycle for all systems that are deemed to be in scope. 2. The Accountable Person **should** make sure that the Certification requirements for Land Systems are identified against Def Stan 23-015 in all applicable Land System Key Certification Areas as agreed with the Land Certification Authority Team (LCAT) to determine the proportionate level of Certification activity required. Land Systems Key Certification Areas are: a. Part 1 – Vehicle Roll Over. b. Part 2 – Radiation Hazard (RADHAZ). c. Part 3 – Noise. d. Part 4 – Vibration. e. Part 5 – Platform Integration. f. Part 6 – Autonomous Systems. g. Part 7 – Struck, Runover and/or Crush. h. Part 8 – System Structural Strength. i. Part 9 – Collision. j. Part 10 – Fire and Explosion. 3. The Land System Certification Request form **should** be used by the Accountable Person to inform the LCAT of the decision to certify or not and captured within the Land System Safety Case.
Further Guidance	LCAT Multiuser email - DESLand-Eng-LCAT@mod.gov.uk Land Certification Defence Standards 23-015

602 – Certifying a Land System

Regulation	The Accountable Person **shall** make sure that the Certification Process and associated outputs are complied with for all Land Systems that are agreed to be subject to Certification.
Provenance	2019 Defence Safety Authority Jackal Service Inquiry. 2021 Health, Safety and Environmental Protection Ajax Noise and Vibration review.
Acceptable Means of Compliance	1. The Accountable person **should** progress Land Certification through the six phases of the Land System Certification Process: a. Phase 0 – Need for Certification Established. b. Phase 1 – Develop Certification Brief and Strategy. c. Phase 2 – Agree Certification Programme. d. Phase 3 – Demonstration of Compliance. e. Phase 4 – Certification Issued (dependent on LCAT review). f. Phase 5 – Post Certification Activities. 2. The Accountable Person **should** make sure that the LCAT is provided with a Technical Familiarisation Brief regarding the Land System that is to be certified. 3. The Accountable Person **should** set out their approach to Certification in their Certification Strategy and provide it to the LCAT. The Certification Strategy **should** include detail on: a. the Land System being Certified; b. identification of key personnel; c. proposed applicable Key Certification Area requirements; d. Risk Register. 4. The Accountable Person **should** make sure that a Certification Programme Plan, informed by the Certification Strategy, is proposed to the LCAT. The Certification Programme Plan **should** include sufficient detail on: a. the Land System definition and intended use; b. identification of key stakeholders; c. detailed Cost and Resourced Plan for Certification activities; d. Land System Programme Schedule, detailing key project milestones; e. proposed Certification Programme Plan, detailing the proposed breakdown of Compliance Demonstration activities, proposed Means of Compliance and related documents, and the level of involvement of key stakeholders in the verification of Compliance Demonstration activities. 5. The Certification Programme Plan **should** be agreed by the LCAT before Compliance Demonstration commences and be updated as necessary during the Certification cycle.

	6. The Accountable Person **should** submit a transparent and proportionate Certification Case to the LCAT. The Certification Case **should** consist of clear and concise Claims, Arguments and Evidence that demonstrates the system seeking Certification, satisfies the Certification Requirements outlined in the Certification Strategy and Certification Programme Plan. 7. The Accountable Person **should** make sure that sufficient evidence, applicable to the Certification Phase, is submitted to the LCAT Team to inform Stage of Involvement Reviews to enable progression through the Land System Certification Process. The LCAT Stage of Involvement (SOI) Reviews, aligned to the Certification phases, are: a. SOI 1 – Planning Review (Phase 1). b. SOI 2 – Development Review (Phase 2). c. SOI 3 – Verification Review (Phase 3). d. SOI 4 – Final Review (Phase 4). 8. When shortcomings are identified in the Certification evidence provided in the Certification Case, the LCAT may issue a Conditional Land System Certification Certificate. The Accountable Person **should** progress the resultant actions to closure with LCAT agreement or to a level deemed acceptable by the LCAT, at which point the LCAT **should** issue a Land System Certification Certificate. 9. For new Land System projects, compliance with Regulation 601 and 602 is to be achieved prior to entering service. 10. For Land Systems in use by other nations and that are to be procured for use by the MOD, the Accountable Person **should** demonstrate the applicability of mutual recognition for that Nations' Certification Case, Certification evidence (or equivalent) to deliver UK MOD proportionate Certification. Mutual recognition is the principle in which the MOD may accept compliance data and evidence for comparable standards and / or contract requirements from other nations in place of UK legislation, regulation and Defence standards **should** the comparable legislation, regulation and standards demonstrate sufficient, applicable read across.
Further Guidance	Templates and Guidance are available from the LCAT Team. LCAT Multiuser email - DESLand-Eng-LCAT@mod.gov.uk

603 – Post Certification Activity

Regulation	The Accountable Person **shall** make sure that Post Certification Activity is sufficiently undertaken, as to maintain a current Land Systems Certification Case for the service life of the Land System which has been certified.
Provenance	2019 Defence Safety Authority Jackal Service Inquiry. 2021 Health, Safety and Environmental Protection Ajax Noise and Vibration review.
Acceptable Means of Compliance	1. The Accountable Person **should** make sure that the Certification Case is reviewed for currency and proportionately updated, as required, **should** one or more of the following conditions occur (note: not listed in priority order): a. to a schedule agreed with the LCAT at time of first Certification; b. scheduled expiration of the extant Land Systems Certification Certificate; c. Land Certification Certificate has been withdrawn by the LCAT; d. change of use of the Certified Land System; e. change of operating environment of the Certified Land System; f. change to the interface of the Certified Land System and other systems; g. incidents, accidents or failures occur which offer challenge to the extant Certification Case; h. major modifications to the system(s) / sub-system(s) are introduced which offer challenge to the extant Certification Case; i. at any extension of Land Systems Service Life; j. there are changes to the Land Systems Certification Defence Standard Def Stan 23-015. 2. The Accountable Person **should** inform the LCAT of any changes to the Certification Case.
Further Guidance	LCAT Multiuser email - DESLand-Eng-LCAT@mod.gov.uk