



Defence
Safety
Authority

FUEL & GAS SAFETY ASSURANCE ASSESSMENT (FGSAA)

Introduction

1. The FGSAA has been produced to enable a common approach by the Regulator and Units when conducting assessments of Unit fuel procedures and infrastructure. The output of this process is to provide assurance to respective TLBs and FGSR on the safe storage and handling of fuels and lubricants across the MoD estate.
2. As the Operating Authority, the Head of Establishment (HoE) is ultimately responsible for the implementation of the FGSAA process. This responsibility can formally delegated to the person(s) in charge of fuel operations. Assistance of additional key personalities and Subject Matter Experts (SME) will be necessary when interpreting and completing this assessment.
3. All units will be externally audited by FGSR on a 1, 3 or 5 year basis, depending on the risk associated with the site. On intervening years the unit will be required to undertake Self-Assessments.
4. Self-Assessments must be completed via FGSR BMT Database. Fuel safety reporting requires a proactive approach and all MoD staff must promote a positive safety culture. It should be stressed to personnel at all levels that accurate reporting is vital to the success of self-assessment, and that all assessments should be completed fully, accurately and honestly. A knowingly inaccurate or misleading self-assessment could expose the unit to the risk of enforcement action.

FGSR Regulatory

5. Regulatory inspections will be conducted by FGSR as per Para 4. This assessment will be compiled on BMT and supported by an Executive summary which will be forwarded to the HoE and relevant TLBs on completion of the inspection.

Self-Assessment

6. For Army HQ, completion of this assessment will be conducted on the Unit's behalf by the Army HQ Petroleum Inspectorate. This will be undertaken in conjunction with the annual Specialist Petroleum Inspection (SPI), which FGSR will use as assurance and reference during Regulatory Visits. In this instance, Army HQ Inspectors should seek guidance from FGSR as required.
7. All other TLBs, advice and guidance on completion of this assessment should be sought from FGSR; however in the first instance Units are encouraged to review the referenced publications and discuss issues with their TLBs.
8. FGSR will acknowledge receipt of the report within 6 weeks of the receipt date. Further guidance can be sought from the persons listed below (FGSR Contacts List).

Notes Self-Assessment completion

9. Units should establish and maintain a local hazard log to register findings of the assessment, in line with guidance provided in JSP 317 and JSP 319.

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10. In countries outside of the UK, DSA 02 & 03, JSPs 317 & 319 standards will apply unless the host nation regulations are more stringent. This does not apply to Germany where local standards agreed in the SOFA are to be adhered to.
11. Footnotes provide guidance for completion throughout the assessment.
12. Serials in **red** font identify **Corrective Action Requirements Level 1 (previously termed High Hazards)**, which will be logged by FGSR on a TLB specific Hazlog (via BMT).
13. Please use the last page of this document to provide any feedback on the assessment; positive or negative. User information is a vital tool which will be used by the FGSR to continually develop and improve the assessment process.

Self-Assessment completion (Non BMT only)

14. Section 1 is mandatory and must be completed by all units. The remainder of the contents page lists types of installation which may be applicable to your Unit. After determining which sections are applicable, annotate the 'Required' column by deleting as applicable. **For multiple installation sites, the unit are to produce additional copies of the relevant FGSA section e.g a unit with 4 x BFIs would return one copy of Section 1 and four copies of Section 6; one for each installation.**

FGSR Contacts:

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Useful Reference Documents:

APEA/IP Design, Construction, Mod, Maintenance and Decommissioning of Filling Stations.
Control of Pollution (Oil Storage) Regulations 2001
DIO Practitioners Guide PG 05/12
DIO Practitioners Guide PG 06/12
Def Stan 01-5
Def Stan 05-52
DMG 14 Mechanical Transport Fuelling Installations (MTFI)
EA PPG 2 – Document withdrawn by the EA, but still available. Content remains useful.
EA PPG 3 – Document withdrawn by the EA, but still available. Content remains useful.
EA PPG 7 – Document withdrawn by the EA, but still available. Content remains useful.
BSI 858 – Separator Systems for Light Liquids (e.g. Oil and Petrol)
UKLPG COP 1 Part 1, Bulk LPG Storage Installations at Fixed Installations – Design, Installation & Operations of Vessels Located Above Ground.
UKLPG COP 7, Storage of Full & Empty LPG Cylinders & Cartridges
BCGA COP 44, the Storage of Gas Cylinders
BCGA COP 36, Cryogenic Liquid Storage at Users' Premises
BCGA COP 19, Bulk LOx Storage at User' Premises
BOC Audit Checklist – Third Party Owned Vessels;-Task List GERTL002
DSA 02 – Fuel and Gas Safety and Environmental Regulations
DSA 03 – Fuel and Gas Safety and Environmental Regulations – Defence Codes of Practice

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2016DIN06-020 DSA Common Enforcement Policy.
 JSP 317
 JSP 319
 JSP 375
 JSP 418
 JSP 426
 Defence Logistics Framework

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1. Site Appointments, Publications, Risk Assessments, Unit Emergency Response Plans, DSEAR and Trained Personnel

With the exception of Sections 13, 14, 15, unless otherwise stated all FGSAA references are taken from the current edition of JSP 317.

1.1 Site Appointments: Detail against Question: Individual's name and E-Mail address.			GRADING			
			G	R	N/A	Remarks
Ref						
1.1.1	Reg.6 (Indirect)	TLB				
1.1.2	Reg.6 (Indirect)	Operational Duty Holder (2*)				
1.1.3	Reg.6 (Indirect)	Delivery Duty Holder				
1.1.4	Reg.6 (Indirect)	Head of Establishment				
1.1.5	Reg.6 (Indirect)	Delegated Operating Authority (if delegated by HoE)				
1.1.6	Reg.6 (Indirect)	OC Fuels				
1.1.7	Reg.6 (Direct)	F&L Manager				
1.1.8	Reg.6 (Indirect)	DIO Representative				
1.1.9	Reg.6 (Indirect)	MMO Representative				
1.1.10	Reg.6 (Indirect)	Unit SHE/SHEF				
1.1.11		2nd Party Assurance Inspector (if applicable)				

1.2 Access to, and Familiar with the Following Publications			GRADING			
			G	R	N/A	Remarks
<i>Access to publications via the Defence Intranet is acceptable.</i>						
Ref						
1.2.1		DSA 02 - Fuel and Gas Safety and Environmental Regulations				
1.2.2		DSA 03 - Fuel and Gas Safety and Environmental Regulations - Defence Codes of Practice (DCOP)				
1.2.3		JSP 317				
1.2.4		JSP 319				
1.2.5		JSP 375				
1.2.6		JSP 418				
1.2.7		JSP 515				
1.2.8		Defence Logistics Authority (Was Defence Logistics Framework/JSP 886)				
1.2.9		DEF STAN 01-05 / Issue 18 dated Aug 16.				
1.2.10		JSP 426				

1.3 Risk /COSHH Assessments			GRADING			
			G	R	N/A	Remarks
Ref						
1.3.1	JSP 375 Reg.3 (Direct)	All processes / activities involving Gases and Fuel & Lubricants (F&L) i.e. storage, handling, distribution, and maintenance of systems / plant, containing F&L, are potential hazardous activities which require accurate and in-date risk assessments to satisfy the requirements of JSP 375, which must be reviewed on an annual basis and signed by an appropriate person (i.e. Line Manager or H&S Rep). FGSR Note Direct Regulation Non-compliance (D.Reg 3)				High Hazard License Condition
1.3.2	JSP 375 Reg.3 (Indirect)	COSHH Risk Assessments have been carried out for all Gases and F&L products held within the unit, including waste. The assessments are readily available in all storage locations iaw the requirements of JSP 375, Indirect D.Reg 3				

1.3.3	JSP 375 Reg.3 (Indirect)	Material Safety Data Sheets (MSDS) are readily available for all Gases and F&L products held within the unit, in all storage locations. These should be provided by the product manufacturer, but can also be downloaded from JSP 515, The Hazardous Stores Information System. Indirect D.Reg 3				
1.3.4	JSP 375 Reg.1 (Indirect) Reg.6 (Indirect)	Has an Area Custodian been appointed (4Cs Duty Holder) wrt management of all fuel and gas compounds. *Detail Name of the 4Cs Duty Holder in comments box. Indirect D.Reg 3				High Hazard
1.3.5	JSP 375 Reg.1 (Indirect) Reg.3 (Indirect)	Site H&S RA Has an Area Site Hazard Register been produced and is it maintained? FGSR Note Direct Regulation Non-compliance (D.Reg 1)				High Hazard
1.3.6	JSP 418 Reg.2 (Direct)	An Environmental Management System has been produced to manage all fuel related environmental risks identified in the Site RA.FGSR Note. Direct Regulation Non-compliance (D.Reg 2)				High Hazard License Condition

1.4 Unit Emergency Response Plans			GRADING			
			G	R	N/A	Remarks
<i>Note: MoD Establishments based on coastlines, within MoD Dockyards, or in civilian harbours must ascertain if their F&L holdings pose any risk to the maritime environment. If so, the USRP shall include both land & maritime spill response strategies & be formally included into the respective Queens Harbour Masters response plans accordingly.</i>						
Ref						
1.4.1	JSP 317 JSP 319 JSP 426 Reg.4 (Indirect)	Have suitable Fire Orders been produced for all fuel and gas installations at the site? Indirect D.Reg 4				

1.4 Unit Emergency Response Plans			GRADING			
			G	R	N/A	Remarks
						Information only
Ref						
1.4.2	JSP 317	The following questions are for Bulk Fuel Storage Sites				
1.4 Unit Emergency Response Plans			GRADING			
			G	R	N/A	Remarks
<i>Note: MoD Establishments based on coastlines, within MoD Dockyards, or in civilian harbours must ascertain if their F&L holdings pose any risk to the maritime environment. If so, the USRP shall include both land & maritime spill response strategies & be formally included into the respective Queens Harbour Masters response plans accordingly.</i>						
Ref						
1.4.3	JSP 317 Defence Intranet Page Reg.4 (Direct)	Has the unit formulated a USRP which is fit for purpose?FGSR Note. Direct Regulation Non-compliance (Reg 4)				High Hazard Environmental Condition
1.4.4	Reg.4 (Direct)	Exercise/Practice. The plan must be practiced on an annual basis. The scale of the exercise must be appropriate for the site and based on adequate risk assessment – i.e. high risk sites holding large quantities of fuel may require a Major Exercise, whilst low risk sites holding small quantities of fuel may require an In-Unit Exercise. *Indicate in the remarks column when the USRP was: Last Exercised. Scale of Exercise (Tier 1, 2 or 3 (Tier 3 = Major))FGSR Note Direct Regulation Non-compliance (D.Reg 4)				High Hazard License Condition

1.4 Unit Emergency Response Plans				Information only			
Ref							
1.4.5	JSP 319	The following questions are for Gas Storage sites - not required for Bulk LPG/Cryo					
1.4 Unit Emergency Response Plans				GRADING			
				G	R	N/A	Remarks
<p><i>Note: MoD Establishments based on coastlines, within MoD Dockyards, or in civilian harbours must ascertain if their F&L holdings pose any risk to the maritime environment. If so, the USRP shall include both land & maritime spill response strategies & be formally included into the respective Queens Harbour Masters response plans accordingly.</i></p>							
Ref							
1.4.6	JSP 319 Reg.4 (Direct)	Is there an Emergency Plan of the gas compound? Emergency Procedures. Does the compound have comprehensive written Emergency Procedures and are they displayed? <ul style="list-style-type: none"> • Spills • Leaks • Fire • Action in the event of an emergency at a nearby facility Question installation operator on actions to be taken. FGSR Note Direct Regulation Non-compliance (D.Reg 4)					
1.4.7	JSP 319 Reg.4 (Indirect)	Has the emergency plan been disseminated to emergency services & key stakeholders? (guardroom, SHEF Manager, Fire Officer) Indirect D.Reg 4					
1.4.8	JSP 319 Reg.4 (Direct)	Has a practical exercise of the emergency plan been conducted in the last 12 months? Is this recorded? Direct Regulation Non-compliance (D.Reg 4)					
1.4.9	JSP 319 Reg.1 (Indirect)	Are accidents, incidents and dangerous occurrences associated with gasses and their containers reported? Is a log kept? Cryo – MF 7777, RIDDOR Indirect D.Reg 1					

1.5 DSEAR 2002				GRADING			
				G	R	N/A	Remarks
<p><i>Under normal storage conditions, full compliance with DSEAR is usually only applicable to Class I and II installations. An initial Risk assessment must be carried out for Class III installations, however hazardous area classification drawings will not normally be required, unless the fuel is being stored at or above its flammable temperature or at high pressure to give off a mist or spray. In this instance the fuel should be re-classified to Class II and full DSEAR compliance and hazardous area classification will be required.</i></p>							
Ref							
1.5.1	JSP 309 Reg.5 (Direct)	Those operating Defence fuel and industrial gas facilities must complete a suitable and sufficient Risk Assessment that complies with the Dangerous Substances and Explosive Atmosphere Regulations. FGSR Note Direct Regulation Non-compliance (D.Reg 5)					High Hazard License Condition
1.5.2	JSP 309 Reg.5 (Direct)	If an explosive atmosphere could exist then those operating Defence fuel and industrial gas facilities must implement a plan that identifies the Hazardous Have Hazardous Area Classification Diagrams been completed? FGSR Note Direct Regulation Non-compliance (D.Reg 5)					High Hazard License Condition
1.5.3	JSP 309 Reg.5 (Direct)	Those operating Defence fuel and industrial gas facilities must demonstrate that all electrical and mechanical machinery and portable equipment used in Hazardous Areas is identified as fit for purpose for the respective zones, is correctly maintained and is asset tracked in accordance with DSEAR. FGSR Note Direct Regulation Non-compliance (D.Reg 5)					High Hazard License Condition

1.6 Trained Personnel				Information only			
Ref							
1.6.1	JSP 317	For Bulk Fuel Storage Sites					

1.6 Trained Personnel			GRADING			
			G	R	N/A	Remarks
Ref						
1.6.2	JSP 317 Reg.6 (Direct)	<p>Operating Authority Delegation. The role of Operating Authority (OA) ultimately rests with the Head of Establishment (HoE) who is required to exercise duty of care over all activities. However, the HoE may choose to formally delegate authority to an appropriate person, although overall responsibility must be retained. When authority is to be delegated, an OA is to be formally appointed by the HoE via a Letter of Appointment (LoA).</p> <p>This is a mandatory requirement for personnel employed in the management and operation of aviation fuel installations. It is also recommended for ground fuel installations.</p> <p>If the HoE has delegated OA, has an appropriate person been formally appointed via a LoA?</p> <p>*Enter details into the comment box as required. FGSR Note Direct Regulation Non-compliance (Reg 6)</p>				High Hazard License Condition
1.6.3	JSP 317 Reg.7 (Direct)	<p>Units require an All Arms F&L Manager (F&L Supervisor), who has attended a formal course at either the Defence Petroleum Training Squadron (ground fuels) or RAF Halton (aviation fuels). The F&L Manager will be the units' focal point for all F&L related matters and will be responsible for conducting formal and informal in-unit training for individuals who are employed within specific petroleum duties.FGSR Note Direct Regulation Non-compliance (D.Reg 7)</p>				High Hazard License Condition
1.6.4	JSP 317 Reg.7 (Direct)	<p>Fuel installations may only be operated by personnel who are trained and competent to do so. A Certificate of Competence (COC) for each operator, specifying each installation the individual is authorised to operate, is to be held by the unit. Part G of the COC must be completed by the Operating Authority (OA), be they the HoE or a person who has had OA responsibilities formally delegated to them.</p> <p>Personnel that are employed in F&L duties on aviation fuel installations are to attend the RAF Fuels Operators Course, at Westmoors, as a pre-employment requirement.</p> <p>**Note that COCs for Aviation BFIs and Ground Fuel MTFIs are now distinctly different. The unit must use the appropriate COC for the installation. FGSR Note Direct Regulation Non-compliance (D.Reg 7)</p>				High Hazard License Condition
1.6.5	JSP 317 DIO GSMP Part C Reg.6 (Indirect)	<p>The units dedicated Authorising Engineer / Gas Safety Manager is ___*__.</p> <p>This question should be graded as 'Red' if unknown.</p> <p>* Enter details in the Comment Box Indirect D.Reg 6</p>				
1.6.6	JSP 317 DIO GSMP Part C Reg.6 (Indirect)	<p>The units dedicated Authorised Person Petroleum / Gas Responsible Person is ___*__.</p> <p>This question should be graded as 'Red' if unknown.</p> <p>* Enter details in the Comment Box Indirect D.Reg 6</p>				

1.6 Trained Personnel			GRADING				
Ref							
1.6.7	JSP 319	Bulk Gas Storage Sites- not required for self-assessment					Information only
1.6 Trained Personnel			G	R	N/A	Remarks	
Ref							

1.6.8	JSP 319 Reg.7 (Direct)	<p>Are personnel who operate the gas infrastructure suitably qualified?</p> <p>Cryogenic installations – CSG Stafford STC 1243 General Bulk Gas Storage - Compressed Gases CN3252</p> <p>Note – External training is accepted, subject to TLB authority (onus on TLB to approve alternative trg courses). FGSR Note Direct Regulation Non-compliance (D.Reg 7)</p>				High Hazard
1.6.9	JSP 319 Reg.10 (Indirect)	<p>Is access to gas compounds restricted? Are personnel who enter the compounds competent to do so? Are non-operators briefed on safety precautions? Are records kept?</p> <p>Indirect D.Reg 10</p>				

2. Packed Fuel & Lubricant Storage Facilities

2.1 Operation & Function			GRADING			
			G	R	N/A	Remarks
Ref						
2.1.1	JSP 317 Reg.8 (Indirect)	Security. Installations should be protected by security fences unless inherently secure, as within a secure area. Indirect D.Reg 8				
2.1.2	JSP 317 Reg.8 (Indirect)	Minimum Separation Distances. Packed stocks in open-air compounds need to have sufficient separation distances from potential sources of ignition, boundaries, public roads, railway lines and occupied buildings. The following distances, determined by quantity of F&L products stored, should be imposed: Quantity Stored (Ltrs) Minimum Separation Distance (m) < 1000 2 1001- 100,000 4 > 100,000 7.5 In addition the maximum stack size should not exceed 300,000 Ltrs. If this quantity is stored the minimum separation distance between stacks is to be 4 m. Indirect D.Reg 8				
2.1.3	JSP 317 Reg.8 (Indirect)	Fire Walls. If employed no separation distance between products is required. Wall must be as high as container stack, be a min of 2m high and located within 3m of stack. Provided these conditions are met, the fire wall may form part of the bund wall, building wall or boundary wall. Indirect D.Reg 8				
2.1.4	JSP 317	Re-Packing Room. A separate room is required for repackaging of damaged containers, which can also act as a quarantine and transit area. This room does not have to be part of the storage facility, however in an open compound a segregated area with drip trays must be provided. Indirect D.Reg 8				
2.1.5	JSP 317 Reg.8 (Indirect)	Acid. If stored physical segregation, or preferably, a dedicated storage room is required. In addition, an Eyewash Station and Emergency Drench Shower must also be provided in an area adjacent to the store. Indirect D.Reg 8				
2.1.6	JSP 317 Reg.8 (Indirect)	Containment within buildings. If stored inside a 75 mm retention sill should surround the store. If this can't be achieved, the floor should be recessed to this depth, sloping towards a sump with sufficient capacity to contain 110% of the largest container stored. An alternative, acceptable method could be achieved with the provision of 150 mm retaining sill, which surrounds the entire facility. In this instance a sump would not be required. Indirect D.Reg 8				
2.1.7	JSP 317	Aqueous Products. If aqueous dangerous goods e.g AL 39 or marine pollutants are stored, the area must be banded or so arranged to prevent any spillage from entering the drainage system. Indirect D.Reg 8				
2.1.8	JSP 317	Bunds. Bunds of open air compounds are to be of sufficient capacity to contain 110% of the largest container stored. A means of removing accumulated water from the bund is required and the contaminated water must be disposed of as hazardous waste. Indirect D.Reg 8				

2.1.9	JSP 317 Reg.8 (Indirect)	Access Ramp. Access ramps to either closed or open-air storage facilities are to have a maximum slope of 1 in 15. Indirect D.Reg 8				
2.1.10	JSP 317 Reg.8 (Indirect)	Fire Protection. F&L Stores and Buildings should be constructed using non-combustible materials. They should be fitted with a Lightweight roof to act as an explosive relief conduit or alternatively have relief panels fitted to one or more exterior walls, provided they vent to a safe place. Indirect D.Reg 8				
2.1.11	JSP 317	Means of Escape. The distance of travel to a means of escape is not to exceed more than 9 m in one direction. If a means of escape is provided in more than one direction the maximum travel distance between exits is limited to 18 m. Emergency exits should be obvious and gangways are to be a minimum of 1.5 m in width. Exits are to open outwards and are to be immediately operable using a single action device which doesn't require a key. Indirect D.Reg 8				
2.1.12	JSP 317 Reg.8 (Indirect)	Electrical Equipment. The electrical equipment designated is to be Zone 2, Ex N. The most onerous temperature class is to be determined by the product range to be stored. BS EN 60079-01-2006 refers. FGSR Note Direct Regulation Non-compliance (D.Reg 8)				High Hazard License Condition
2.1.13	JSP 317 Reg.8 (Indirect)	Lighting. Is to be installed to provide an average luminance of 200 Lux at 0.8m above ground level. Indirect D.Reg 8				
2.1.14	JSP 317 Reg.8 (Indirect)	Lightning Protection. A lightning protection system compliant with BS 6651 or BS EN 62305* is to be installed. Indirect D.Reg 8				
2.1.15	JSP 317 Reg.8 (Indirect)	Ventilation. Ventilation openings are to have a total area equivalent to 1-3% of the total external wall area. For small buildings the simplest method of ensuring adequate ventilation is to have fixed, permanent openings, such as air bricks or louvers installed in the external walls at high and low levels. Indirect D.Reg 8				
2.1.16	JSP 317 Reg.1 (Indirect)	Hazard Warning Signs (HWS). The following HWS stating "Petroleum Spirit, Highly Flammable, No Smoking, No Naked Lights" must be displayed on all approaches to the facility: Indirect D.Reg 1 				

2.2 Fire Health & Safety			GRADING			
			G	R	N/A	Remarks
Ref						
2.2.1	MOD(A) FF&FS Sec 3 Ch 2 P 5 Reg.1 (Indirect)	Other Stores. Facility to be used exclusively for the storage of F&L. Indirect D.Reg 1				
2.2.2	MOD(A) FF&FS Sec 3, Ch 2, P 35 d Reg.8 (Indirect)	Glazing. All windows within the building, if applicable, are to be fitted with fire resistant glazing. (Highly Flammable products only – Flashpoint of 32°C or below). Indirect D.Reg 8				

2.2.3	JSP 317 Reg.8 (Indirect)	Washing & changing facilities are to be provided for personnel at the place of work. In addition, the following items must also be provided: • Barrier Cream and After Work Cream. • Eyewash (In Date). • Emergency First Aid Kit. Indirect D.Reg 8				
2.2.4	JSP 317 Reg.1 (Indirect)	Appropriate Personal Protective Equipments (PPE) and Respiratory Protective Equipment (RPE) is provided and used by all operators. Indirect D.Reg 1				
2.2.5	JSP 317 Reg.4 (Indirect)	The quantity and location of all fire fighting equipment, which is determined by the Unit Fire Officer, must reflect what is stated in the Fire Safety Risk Assessment (FSRA). Indirect D.Reg 4				
2.2.6	JSP 317 JSP 426 Reg.4 (Indirect)	An installation specific fire plan is to be available at the installation. It should include details of : • Fire detection and alarm systems • Water and other chemical firefighting agents • Firefighting equipment • Emergency shut down procedures • Emergency evacuation procedures & assembly points • Staff fire training • Duties of persons nominated in the plan • Arrangements for testing and updating the plan Indirect D.Reg 4				
2.2.7	JSP 426 Reg.4 (Indirect)	Fire Safety Notices & Fire Action Notices must be displayed in order to comply with the Health and Safety (Safety Signs and Signals) Regulations 1996. Locations and quantities should relate to the local risks and be the result of a risk assessment. Indirect D.Reg 4 				
2.2.8	JSP 317 Reg.1 (Indirect)	Smoking or Smoking materials are not permitted in the hazardous area. Personnel are to deposit any smoking materials in a safe designated contraband area before entering a hazardous zone or likely hazardous area. Indirect D.Reg 1				
2.2.9	JSP 317 JSP 375 Reg.8 (Indirect)	Grass and Vegetation is to be cut back to a minimum of 15m. Isolated deciduous trees are permitted but conifers must be removed. Grass cutting and removal of vegetation must be carried out iaw the MoD Safety Rules and Procedures for Work on Petroleum installations. Indirect D.Reg 8				
2.2.10	JSP 317 Reg.4 (Indirect)	The installation should have an effective means of both raising the alarm and giving warning in case of fire. It should be audible to all those likely to be effected by the fire. There must be access to a phone with in reasonable distance, which is to be clearly signposted. Indirect D.Reg 4				

2.3 Environmental Protection		GRADING				
		G	R	N/A	Remarks	
Ref						
2.3.1	JSP 317 Reg.4 (Indirect)	Spillages to be mopped up immediately using approved absorbent material which must be removed from the area for safe disposal after use. Indirect D.Reg 4				

2.3.2	JSP 317 Reg.10 (Indirect)	Leaking Containers. The storage area should be inspected regularly for evidence of leaking containers. If found, leakers should be decanted into sound containers specifically designed for the storage of F&L. Indirect D.Reg 10				
2.3.3	JSP 317 Reg.4 (Indirect)	A Pollution Control Point (PCP) is to be established at the installation. The PCP must be clearly identifiable, stocked appropriately and be maintained on a regular basis. Indirect D.Reg 4				
2.3.4	JSP 317 Reg.4 (Indirect)	Spillage Immediate Action Posters are to be prominently displayed at all Pollution Control Points and locations where F&L is stored. Indirect D.Reg 4				

2.4 Operating Procedures			GRADING			
			G	R	N/A	Remarks
Ref						
2.4.1	JSP 317 Reg.10 (Indirect)	Container Markings. The correct product information is to be marked on each container. Markings are to be legible. Indirect D.Reg 10				
2.4.2	JSP 317 Reg.10 (Indirect)	Housekeeping. No general rubbish and all contaminates, including rags, are to be removed from the area after use. Indirect D.Reg 10				
2.4.3	JSP 317 Reg.10 (Indirect)	Only authorised equipment, plant, vehicles or locomotives may enter the hazardous area. Indirect D.Reg 10				
2.4.4	JSP 317 Reg.10 (Indirect)	Gas bottles, including medical gases, whether full or empty are to be stored separately from packed F&L stock. Indirect D.Reg 10				
2.4.5	JSP 317 Reg.10 (Indirect)	Leak Detection. Containers are to be stacked in such a manner that leaks can be easily detected. Indirect D.Reg 10				
2.4.6	JSP 317 Reg.10 (Indirect)	25 Ltr Drums (Indoors). Preferably stored in F&L Schaefer Pallets. If no pallets available drums should be stacked upright with each tier inset half a drum. Where the design of the drum makes this method impractical they may be stored directly on top of each other to a maximum of 5 tiers high. Indirect D.Reg 10				
2.4.7	JSP 317	25 Ltr Drums (Outdoors). Preferably stored in F&L Schaefer Pallets. If unavailable belly stack drums in rows of 2, butt to butt, up to a maximum of 5 tiers high. Filler caps to face outward and be just below the level of the liquid. A 2 m wide lane is to be left between each double row.				
2.4.8	JSP 317 Reg.10 (Indirect)	205 Ltrs Drums. Belly stacked as above in rows of 2. Usually 1 tier high, however if real estate is restricted this can be extended to 3 tiers. Drums must be stored on hard, dry standings. Indirect D.Reg 10				
2.4.9	JSP 317 Reg.10 (Indirect)	Jerri cans. Preferably stored in F&L Schaefer Pallets up to 4 tiers high if real estate permits. If stored on uneven ground jerri cans are to be belly stacked up to a maximum of 10 tiers high. Indirect D.Reg 10				
2.4.10	JSP 317 Reg.10 (Indirect)	Greases. Grease in individual tins or kegs should be stacked upright not more than 5 Tiers high and be inset by half a tin diameter at each tier. Wherever possible, grease should be stored under cover. Indirect D.Reg 10				

2.4.11	JSP 317 Reg.10 (Indirect)	Cartons. Preferably stored in F&L Schaefer Pallets. Stacked under cover where possible up to 6 tiers high. If no pallets available kept off the ground using metal or brick dunnage. Indirect D.Reg 10				
2.4.12	JSP 317 Reg.10 (Indirect)	Palletised Containers. . Palletised Stack height is limited to the MHE available. Larger lanes should be left to allow MHE to manoeuvre, however the minimum recommended safety distances must never be reduced. Indirect D.Reg 10				
2.4.13	JSP 317 Reg.10 (Indirect)	Empty Containers. Closures closed, bungs replaced and screwed tight. Indirect D.Reg 10				
2.4.14	JSP 317 Reg.10 (Indirect)	Cradles or Trolleys. To be provided when movement of large drums is to be undertaken by hand. Indirect D.Reg 10				
2.4.15	JSP 317 Reg.10 (Indirect)	Segregation. Packed F&L should be segregated by product type, UN Classification, Batch Number, Fill and Re-test dates and each location is to be labelled accordingly. Indirect D.Reg 10				
2.4.16	JSP 317 Reg.10 (Indirect)	Fit For Issue. The quality and integrity of the packed F&L is to be maintained at all times. All stock held should be fit for purpose and should have sufficient life left to allow for consumption by the user before a retest is due. Product that is life expired is identified and segregated from other stock. Indirect D.Reg 10				
2.4.17	JSP 317 Reg.10 (Indirect)	Unit Filled Cans. In exceptional circumstances Unit Commanders may authorise an Officer or NCO to fill jerri cans from an MTFI. In this instance all previous labels must be removed from the cans prior to filling and a Unit Filled Identification Label must be fitted. Unit Filled cans are to be used within 3 months of fill date. Indirect D.Reg 10				

2.5 Maintenance			GRADING			
			G	R	N/A	Remarks
Ref						
2.5.1	DIO PG 06/12 Reg.9 (Direct)	The Packed F&L Storage Facility (Indoor) has been inspected and deemed compliant by a competent member of the Maintenance Management Organisation in accordance with the requirements of the DIO Practitioners Guide 06/12. FGSR Note Direct Regulation Non-compliance (D.Reg 9)				

3. Packed Waste Storage Facilities

An uncontrolled release of waste F&L would have the same impact on the environment as serviceable F&L. Therefore packed waste storage shall comply with principles laid down at JSP 317.

3.1 Operation & Function			GRADING			
			G	R	N/A	Remarks
Ref						
3.1.1	JSP 317 Reg.8 (Indirect)	Security. Installations should be protected by security fences unless inherently secure, as within a secure area. Indirect D.Reg 8				
3.1.2	JSP 317 Reg.8 (Indirect)	Minimum Separation Distances. Packed stocks in open-air compounds need to have sufficient separation distances from potential sources of ignition, boundaries, public roads, railway lines and occupied buildings. The following distances, determined by quantity of F&L products stored, should be imposed: Quantity Stored (Ltrs) Minimum Separation Distance (m) < 1000 2 1001- 100,000 4 > 100,000 7.5 In addition the maximum stack size should not exceed 300,000 Ltrs. If this quantity is stored the minimum separation distance between stacks is to be 4 m. Indirect D.Reg 8				
3.1.3	JSP 317 Reg.8 (Indirect)	Aqueous Products. If aqueous dangerous goods e.g AL 39 or marine pollutants are stored, the area must be bunded or so arranged to prevent any spillage from entering the drainage system. Indirect D.Reg 8				
3.1.4	JSP 317 Reg.8 (Direct)	Bunds. Bunds of open air compounds are to be of sufficient capacity to contain 110% of the largest container stored. A means of removing accumulated water from the bund is required and the contaminated water must be disposed of as hazardous waste. FGSR Note Direct Regulation Non-compliance (D.Reg 8)				High Hazard
3.1.5	JSP 317 Reg.8 (Indirect)	Access Ramp. Access ramps to either closed or open-air storage facilities are to have a maximum slope of 1 in 15. Indirect D.Reg 8				
3.1.6	JSP 317 Reg.1 (Indirect)	The following Hazard Warning Sign stating "Petroleum Mixture, Highly Flammable, No Smoking or Naked Flames, No Mobile Phones, No Parking" must be displayed on all approaches to the facility: Indirect D.Reg 1 				

3.2 Fire, Health & Safety			GRADING			
			G	R	N/A	Remarks
Ref						
3.2.1	MOD(A) FF&FS Sec 3 Ch 2 Para 5 Reg.8 (Indirect)	Other Stores. Facility to be used exclusively for F&L. Indirect D.Reg 8				

3.2.12	JSP 317 Reg.4 (Indirect)	The installation should have an effective means of both raising the alarm and giving warning in case of fire. It should be audible to all those likely to be effected by the fire. There must be access to a phone with in reasonable distance, which is to be clearly signposted. Indirect D.Reg 4				
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3.3 Environmental Protection			GRADING			
			G	R	N/A	Remarks
Ref						
3.3.1	JSP 317 Reg.4 (Indirect)	Spillages to be mopped up immediately using approved absorbent material which must be removed from the area for safe disposal after use. Indirect D.Reg 4				
3.3.2	JSP 317 Reg.4 (Indirect)	A Pollution Control Point (PCP) is to be established at the installation. The PCP must be clearly identifiable, stocked appropriately and be maintained on a regular basis. Indirect D.Reg 4				
3.3.3	JSP 317 Reg.4 (Indirect)	Spillage Immediate Action Posters are to be prominently displayed at all Pollution Control Points and locations where F&L is stored. Indirect D.Reg 4				

3.4 Operating Procedures			GRADING			
			G	R	N/A	Remarks
Ref						
3.4.1	JSP 317 Reg.10 (Indirect)	Segregation. Different types of waste are to be stored separately to avoid the risk of fire, explosion or toxic vapour. Waste products should be collected and mixed into one of the following groupings as detailed in JSP 317, Part 3, Chapter 4, Annex A: <ul style="list-style-type: none"> • Mineral Oils • Fuel • Glycol's, Glycol Ethers (AL's) Waste drums should be labelled with the specific group heading, prefixed by the word 'Waste' and followed by the word 'Only', e.g: Indirect D.Reg 10 				
3.4.2	JSP 317 Reg.10 (Indirect)	Leak Detection. Containers are to be stacked in such a manner that leaks can be easily detected. Indirect D.Reg 10				
3.4.3	JSP 317 Reg.10 (Indirect)	Leaking Containers. The storage area should be inspected regularly for evidence of leaking containers. If found, leakers should be decanted into sound containers specifically designed for the storage of F&L. Indirect D.Reg 10				
3.4.4	JSP 317 Reg.10 (Indirect)	Empty Containers. Closures to be closed, bungs replaced and screwed tight. Indirect D.Reg10				
3.4.5	JSP 317 Reg.10 (Indirect)	Cradles or Trolleys. To be provided when movement of large drums is to be undertaken by hand. Indirect D.Reg10				

4. Mechanical Transport Fuelling Installations (MTFI)

STORAGE TANKS

Tank No.	Capacity	Product	Above/ Below Ground	Construction (GRP/Steel- Double/Single Skin)	Redundant	Decommissioned	Remarks

METERING/DISPENSE PUMPS

Pump No.	Serial No.	Make	Product	Remarks

INTERCEPTORS

Int No.	Construction (GRP/Brick/Steel)	Max Capacity (Ltrs)	Type (Full Retention or Bypass)	Class (1 or 2)	Remarks

4.1.1 ANY ADDITIONAL INFORMATION			GRADING			
Ref			G	R	N/A	Remarks
4.1.1.1		Annual ULGAS throughput (Ltrs)				
4.1.1.2		Unit ULGAS dependant Vehicles				
4.1.1.3		Does the throughput or number of dependant vehicles suggest that the unit could remove ULGAS from the site?				

4.2 MTFI

Required for 1st & 2nd Party Assurance Audit and 3rd Party Regulatory Audit for all sites

4.2.1 Installation Maintenance Documentaion			GRADING			
			G	R	N/A	Remarks

Note: BF (G) based units will be inspected under an alternative regime. DSEA FGSR should be contacted for guidance when completing this section

Ref					
4.2.1.1	DIO PG 06/12 Reg.9 (Direct)	<p>Inspection of the Fuel Infrastructure and Flammable Goods Facilities (DIO Practitioner Guidance 06/12) : :</p> <p>An Inspection of the Fuel Infrastructure and Flammable Goods Facilities was carried out on __*__. A Certificate of Fitness for Continued Use was Issued for a period of __*__ months. If the facility was considered 'Not Fit For Continued Use' or the unit were given a specified timeframe to rectify observations in the 'Table of Defects', which has lapsed without rectification, grade this question as Red and answer the following 'Action Plan' question.</p> <p>*Details to be entered in Comments Box detailing; Inspection Date, Valid for a period of and what grading the site has been given (Satisfactory/Unsatisfactory).</p> <p>**If this question is graded Red, answer the following Action Plan question.</p> <p>FGSR Note Direct Regulation Non-compliance (D.Reg 9)</p>			High Hazard Environmental Condition
4.2.1.2	DIO PG 06/12 Reg.9 (Indirect)	<p>Inspection of the Fuel Infrastructure and Flammable Goods Facilities Action Plan (If applicable):</p> <p>An Action Plan has been produced and funding has been allocated to rectify the specific observations detailed in the 'Table of defects' which warranted the 'Not Fit for Continued Use' grading.</p> <p>Indirect D.Reg 9</p>			
4.2.1.3	D&MG 14 APEA Blue Book Reg.9 (Direct)	<p>Electrical Systems Test (Annual):</p> <p>The Installations Electrical System was tested iaw the requirements of DMG 14 on __*__ by a Compex 7&8 qualified electrician or equivalent using the correct, serialised 'Filling Station Electrical Periodic Inspection Report' forms* and was graded as 'Satisfactory'. An 'Unsatisfactory' grade should be awarded 'Red'.</p> <p>*Details to be entered in Comments Box detailing; Inspection Date and what grading the site has been given (Satisfactory/Unsatisfactory).</p> <p>**If this question is graded Red, answer the following Electrical Test Action Plan question.</p> <p>FGSR Note Direct Regulation Non-compliance (D.Reg 9)</p>			High Hazard License Condition
4.2.1.4	D&MG 14 Para 15.2 Table 1 Reg.8 (Indirect) APEA Blue Book	<p>Electrical Systems Test Action Plan (If applicable):</p> <p>An Action Plan has been produced and funding has been allocated to rectify the specific observations which resulted in the 'Unsatisfactory' Electrical Test grading.</p> <p>Indirect D.Reg 8</p>			
4.2.1.5	JSP 317 Reg.8 (Indirect)	<p>Lightning Protection (If applicable)</p> <p>If the installation is located in an area susceptible to lightning BS 6651 and BS EN 62305 are to be consulted to determine whether lightning protection is required. If it is required, protection installed at installations constructed prior to 31 Aug 08 is to be maintained iaw the requirements of BS 6651 until such time that the installation is upgraded, after which BS EN 62305 will apply. Lightning protection installed on or after 31 Aug 08 is to be installed and maintained iaw the requirements of BS EN 62305.</p> <p>Indirect D.Reg 8</p>			
4.2.1.6	D&MG 14 Reg.9 (Indirect)	<p>Metering Pump Calibration (6 Monthly):</p> <p>The installation metering pumps were calibrated on __*__</p> <p>*Details to be entered in Comments Box.</p> <p>Indirect D.Reg 9</p>			

4.2.1.7	DIO PG 06/12 Annex B Reg.9 (Indirect)	<p>Level 1 Assessment (Underground Single Skinned Steel Tanks (USSST) only): Level 1 Assessments were conducted on ___*___ and the cumulative scores were ___*___.</p> <p>*Details to be entered in Comments Box.</p> <p>NB: A tank is deemed as High Risk if the cumulative score exceeds +6</p> <p>Indirect D.Reg 9</p>				
4.2.1.8	DE PG 06/12 Annex B D&MG 14 Reg.9 (Indirect)	<p>Level 2 Testing, Tank Tightness Tests for USSST only: The Installations was constructed in ___*___. The last Level 2 Testing was undertaken on the installations storage tanks on ___*___. The next Tank Tightness Tests are due on ___*___.</p> <p>*Details to be entered in Comments Box.</p> <p>NB. USSST shall undergo Level 2 testing in years 20, 25, 30 and every 2 years thereafter as a minimum and more frequently if the level 1 assessment deems it necessary.</p> <p>Indirect D.Reg 9</p>				
4.2.1.9	JSP 317 Reg.2 (Direct)	<p>Oil Water Interceptor (OWI) Design: The OWI should meet the following specifications:</p> <ul style="list-style-type: none"> • Minimum capacity of 7600 litres; and greater than the smallest compartment of the delivery tanker • Full retention • Class 1 (if draining to Surface or Foul Water) or Class 2 (if draining to Foul Water only) <p>If it does not meet the above conditions, and an Environmental Risk Assessment has not been produced to mitigate this risk, a 'Red' grade must be awarded for this question.</p> <p>If an Environmental Risk Assessment has been produced; which mitigates the design shortcomings, this question can subsequently be graded as Green.</p> <p>If the OWI does not meet the above specifications; answer the following mitigation question below.</p> <p>*Enter details of OWI Capacity in the Comments Box FGSR Note Direct Regulation Non-compliance (D.Reg 2)</p>				High Hazard
4.2.1.10	JSP 317 Reg.2 (Direct)	<p>OWI Mitigation - Pollution ERA: A Pollution ERA, which has been updated within the previous 12 months, has been produced to mitigate the increased risk created by the inadequate OWI design.</p> <p>If the Pollution ERA mitigates the inadequate OWI design by demonstrating a solution that is equivalent or better than the protection afforded by a suitable OWI, subsequent assessments can be assessed as Green.</p> <p>FGSR Note Direct Regulation Non-compliance (D.Reg 2)</p>				High Hazard

4.2.1.1 1	JSP 317 DMG 14 PPG 3 Reg.9 (Direct)	<p>OWI Maintenance: These assets are maintained under Project Aquatrine by the service providers. As a minimum, every 6 months or iaw manufacturers' instructions, OWIs should be physically inspected to:</p> <ul style="list-style-type: none"> • Ensure the Integrity of OWI • Identify the quantity of any accumulated F&L and silt. • Confirm that all electrical equipment is functioning correctly i.e Alarms. • Inspect the Condition of any coalescing devices and replace if necessary. <p>There must be evidence to clearly demonstrate that all the above points have been completed for this serial to be graded compliant.</p> <p>The last inspection of the Interceptor was conducted by ___*___ on ___*___. If this date exceeds 6 months or the date of the last inspection cannot be ascertained award a 'Red' grade for this question.</p> <p>*Details to be entered in Comments Box. FGSR Note.</p> <p>Direct Regulation Non-compliance (D.Reg 9)</p>				High Hazard
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4.2.2 Operation & Function			GRADING			
Ref			G	R	N/A	Remarks
4.2.2.1	JSP 317 Reg.2 (Indirect)	<p>If the installation dispenses Petroleum (IP Class 1) and the following criteria is met, a Stage 1b vapour recovery system must be fitted:</p> <p>Throughput is greater than 100,000 Ltrs per year. The installation is in England or Wales</p> <p>Installations in the Highlands and Islands of Scotland do not require vapour recovery.</p> <p>Indirect D.Reg 2</p>				
4.2.2.2	JSP 317 Reg.1 (Indirect)	<p>An in-date Defence Safety & Authority (DSA) 'Certificate for Continued Operation' must be displayed at the installation control point.</p> <p>Insert one of the following in the remarks column: *Annual-FGSR to inspect *3 Yearly *5 Yearly</p> <p>Indirect D.Reg 1</p>				
4.2.2.3	JSP 317 Reg.1 (Indirect)	<p>All Metering pumps/dispensers shall be marked with the NATO product and grade identification markings.</p> <p>Indirect D.Reg 1</p>				
4.2.2.4	JSP 317 Reg.4 (Indirect)	<p>Does the installation layout provide adequate escape routes for personnel and means of access for fire brigades in the event of fire?</p> <p>Indirect D.Reg 4</p>				
4.2.2.5	JSP 317 Reg.8 (Indirect)	<p>Overhead Power Cables must not cross the Petroleum Hazardous Area.</p> <p>Indirect D.Reg 8</p>				
4.2.2.6	JSP 317 Reg.8 (Direct)	<p>Above Ground Storage Tanks- Secondary Containment The bund wall must be capable of retaining 110% of the largest container within the bund or 25% of the aggregate of multiple containers, whichever is greater.</p> <p>FGSR Note Direct Regulation Non-compliance (D.Reg 8)</p>				High Hazard

4.2.2.7	JSP 319 Reg.8 (Direct)	Above Ground Storage Tanks- Secondary Containment The bund wall must: Be impervious to liquid Not normally be higher than 1.5m high. Be fitted with crash protection if susceptible to impact damage e.g adjacent to a vehicle manoeuvring area. FGSR Note Direct Regulation Non-compliance (D.Reg 8)				High Hazard
4.2.2.8	JSP 317 Reg.8 (Indirect)	Above Ground Storage Tanks- Secondary Containment. In order to prevent jetting; a phenomenon caused when the primary container fails and F&L is propelled at force beyond the secondary containment, the bund wall is not to be constructed too close to the tank. Indirect D.Reg 8				
4.2.2.9	JSP 317 Reg.8 (Direct)	Above Ground Storage Tanks - Secondary Containment The bund base and walls must not be penetrated by any valve, pipe or other opening which is used for draining the bund. Where a tank fill or draw off pipe must pass through the bund base or wall, the hole must be carefully sealed with a fire resistant seal to prevent oil escaping. FGSR Note Direct Regulation Non-compliance (D.Reg 8)				High Hazard
4.2.2.10	JSP 317 Reg.2 (Indirect)	Above Ground Storage Tanks - Secondary Containment Rainwater which collects in the sump must be removed on a regular basis to ensure the bund capacity is maintained. This water is to be disposed of appropriately to ensure no pollution occurs. Indirect D.Reg 2				
4.2.2.11	2.8.20 Reg.9 (Indirect)	Inspection of Bunds - Bunds should be regularly inspected for signs of damage and checked for water by the operator on a weekly basis. Indirect D.Reg 9				
4.2.2.12	JSP 317 Reg.2 (Indirect)	Above Ground Storage Tanks - Secondary Containment If oil or a mixture of oil and water is found in the bund it must be disposed of in accordance with current Hazardous Waste Regulations. Indirect D.Reg 2				
4.2.2.13	OSR 01 Reg 3(3) Reg.8 (Indirect)	Above Ground Storage Tanks- Secondary Containment Valves should be as resistant to unauthorised interference and vandalism as far as is feasibly possible, with lockable or removable hand wheels. Indirect D.Reg 8				
4.2.2.14	OSR 01 Reg 3(3) Reg.8 (Indirect)	Above Ground Storage Tank- Secondary Containment s All tank vent pipes, valves, filters, sight gauges and any other ancillary equipment with the exception of the fill pipe, draw off pipe or pump if the fuel has a flashpoint of less than 32°C, must be positioned within the bund wall. Indirect D.Reg 8				
4.2.2.15	OSR 01 Reg 3(3)	Above Ground Storage Tanks Valves should be marked to indicate whether they are open or closed, kept locked when not in use and fitted with a blanking cap or plug. Indirect D.Reg 1				
4.2.2.16	OSR 01 Guidance Para 38 Reg.8 (Indirect)	The connection point is to be located inside bund wall or be located in a position which allows for containment. Indirect D.Reg 8				

4.2.2.1 7	JSP 317 Reg.8 (Indirect)	<p>Sight Glasses The use of sight glasses should be limited to the storage of Class II & III fuel tanks with a maximum capacity of 3500 Ltrs. If sight glasses are fitted they shall:</p> <p>Be located in the secondary containment. Be properly supported so that they cannot come loose. Be fitted with a valve that automatically closes when the sight glass is not in use. Be fitted with valves which are kept closed when not in use and only opened when taking contents readings.</p> <p>Indirect D.Reg 8</p>				
4.2.2.1 8	JSP 317 Reg.8 (Indirect)	<p>Small Tank Minimum Separation Distances. A small tank is considered to be a tank with a diameter of less than 10m. The minimum separation distances from site boundaries, fixed sources of ignition, buildings and process areas for single small tanks are as follows:</p> <p>Tank Capacity (m³) Separation (m) Less than or equal to 1 1* Greater than 1 and less than or equal to 5 4 Greater than 5 and less than or equal to 33 6 Greater than 33 and less than or equal to 100 8</p> <p>*In this instance the tank must be sited at least 2m from doors, plain glazed windows, other openings or means of escape. In addition they must not be below openings from an upper floor, regardless of vertical distance.</p> <p>Indirect D.Reg 8</p>				
4.2.2.1 9	JSP 317 Reg.8 (Indirect)	<p>The installation must be protected by an independent Forecourt Separator/Oil Water Interceptor (OWI). Under no circumstances should waste water from washing, cleaning or fire fighting activities be discharged through a forecourt separator as the detergents will cause emulsification and render the device useless.</p> <p>Indirect D.Reg 8</p>				
4.2.2.2 0	JSP 317 Reg.8 (Indirect)	<p>The OWI must be fitted with a high-level alarm & automatic shut off valve.</p> <p>Indirect D.Reg 8</p>				
4.2.2.2 1	JSP 317 Reg.8 (Direct)	<p>The Road Tanker Delivery Stand should be located in a safe, well ventilated position in the open and should offer a clear, unobstructed forward escape route.</p> <p>FGSR Note Direct Regulation Non-compliance (D.Reg 8)</p>				High Hazard License Condition
4.2.2.2 2	JSP 317 Reg.10 (Indirect)	<p>The Road Tanker Delivery Stand – Attended. Prior to a bulk receipt at an attended installation, the delivery driver must be presented with a notice detailing safe delivery/receipt and emergency procedures. The driver is to read and sign the notice to confirm they understand the procedures before commencing delivery.</p> <p>Indirect D.Reg 10</p>				
4.2.2.2 3	JSP 317 Reg.8 (Direct)	<p>The minimum recommended distance of a Road Tanker Delivery Stand from occupied buildings, the site boundary or a fixed source of ignition is 10m or the distance calculated on the DSEAR RA; whichever is greater. This does not apply to Bulk Waste, UETF, FFO and Domestic Heating Tanks.eating Oil UETF FGSR Note Direct Regulation Non-compliance (D.Reg 8)</p>				High Hazard License Condition
4.2.2.2 4	JSP 317 Reg.8 (Direct)	<p>The Road Tanker Delivery Stand. The delivery stand should be a minimum of 15m x 5m. If this isn't practicable, signage and barriers are to be used to restrict vehicle and personnel access during transfer operations.</p> <p>FGSR Note Direct Regulation Non-compliance (D.Reg 8)</p>				High Hazard

4.2.2.2 5	JSP 317 Reg.8 (Direct)	The Road Tanker Delivery Stand. Road tankers shall not be made to wait on public or internal busy roads. The delivery stand should be substantially level to ensure full extraction during deliveries.. If the delivery stand is in close proximity to an above ground storage tank, adequate protection against impact damage is to be provided. FGSR Note Direct Regulation Non-compliance (D.Reg 8)				High Hazard
4.2.2.2 6	JSP 317 Reg.8 (Direct)	The Road Tanker Delivery Stand must be impermeable to hydrocarbons and be capable of withstanding the axle weight of a fully laden delivery tanker. FGSR Note Direct Regulation Non-compliance (D.Reg 8)				High Hazard
4.2.2.2 7	JSP 317 Reg.8 (Direct)	The Road Tanker Delivery Stand. Delivery stand gradients and perimeter drains shall be designed to accept a discharge rate of 16 litres per second for a period of 7 minutes over a 2m wide section of catchment channel, without overflowing. FGSR Note Direct Regulation Non-compliance (D.Reg 8)				High Hazard
4.2.2.2 8	APEA Reg.8 (Indirect)	Vehicle Filling Area. Areas that are liable to contamination, such as the vehicle filling area, should be impermeable to all hydrocarbons and should not allow seepage through or below the surface. Areas such as these should always be protected at the perimeter by a suitable means of restraint such as kerbing, drainage channels or walling, to prevent the flow of contaminants towards permeable surfaces. Indirect D.Reg 8				High Hazard
4.2.2.2 9	JSP 317 Reg.1 (indirect)	The following 'Disconnect the Hose' sign must be displayed at tanker Receipt/Issue points. The sign must be visible from the vehicle cab when the dispensing hose is connected to the installation: Indirect D.Reg 1 				
4.2.2.3 0	JSP 317 Reg.4 (indirect)	The installation should have an effective means of both raising the alarm and giving warning in case of fire. It should be audible to all those likely to be affected by the fire. There must be access to a phone within reasonable distance, which is to be clearly signposted. Indirect D.Reg 4				
4.2.2.3 1	APEA Para 4.4.5 Reg.8 (indirect)	Vent pipes for underground storage tanks must be a minimum of 4 m above ground level (5m for non-emission control systems). The vent discharge point on an emissions control system should not be within 3 m of opening windows in any direction or any other opening to a building. In addition, vent pipes should not be located within 2 m of the installation boundary (3 m for non-emission control systems). Indirect D.Reg 8				
4.2.2.3 2	JSP 317 Reg.1 (indirect)	VPR: If a vapour recovery system is fitted a sign stating "Connect vapour line before off-loading" must be displayed at each vapour return hose connection point. Indirect D.Reg 1				
4.2.2.3 3	JSP 317 Reg.1 (indirect)	VPR Manifold: If a vapour recovery system is fitted a sign stating "Warning, this tank is manifolded. Isolate tank vent pipe before commencing any work" must be displayed at each tank connected to a common vapour collection point. Indirect D.Reg 1				

4.2.2.3 4	JSP 317 Reg.1 (indirect)	<p>The following Hazard Warning Sign stating “Petroleum Spirit, Highly Flammable, No Smoking or Naked Flames, No Mobile Phones, Switch Off Engine” must be displayed on all approaches to the facility in the local language and English:</p> <p>Indirect D.Reg 1</p> 				
4.2.2.3 5	JSP 317 Reg.1 (indirect)	<p>The following minimised sign stating “Petroleum Spirit, Highly Flammable, No Smoking or Naked Flames, No Mobile Phones, Switch Off Engine” must be displayed at each metering pump/dispenser, the control point and offset filling point (If applicable) in the local language and English:</p> <p>Indirect D.Reg 1</p> 				
4.2.2.3 6	JSP 317 Reg.1 (indirect)	<p>If any of the storage tanks have contained leaded petrol a label reading “This tank has contained leaded petroleum spirit. It must not be entered unless the prescribed regulations are complied with.” must be displayed at the opening of the tank.</p> <p>Indirect D.Reg 1</p>				
4.2.2.3 7	D&MG 14 Reg.8 (indirect)	<p>The centre lines of any tank openings or offset filling points are not to be within 4 m from roads, occupied buildings or the installation boundary. Where a building is a domestic premises or premises housing vulnerable populations, e.g. schools, hospitals, an increased separation distance of up to 12 m is recommended.</p> <p>Indirect D.Reg 8</p>				
4.2.2.3 8	D&MG 14 Reg.8 (indirect)	<p>Pipe work from tanks to offset filling points is to be routed below ground and in such a manner that access can be achieved after installation.</p> <p>Indirect D.Reg 8</p>				
4.2.2.3 9	D&MG 14 Reg.8 (indirect)	<p>Metering pumps should be located in the open air where they can be adequately ventilated. The centre lines of the dispensing pumps must be a minimum of 9m from living accommodation, 6m from other occupied buildings, including the control room and must not be within 4m of access roads or the installation boundary or any access roads.</p> <p>Indirect D.Reg 8</p>				
4.2.2.4 0	D&MG 14 Reg.4 (indirect)	<p>At unattended installations the name and contact number of the person to be contacted in an emergency should be displayed in an area adjacent to the emergency telephone.</p> <p>Indirect D.Reg 4</p>				
4.2.2.4 1	APEA Reg.8 (indirect)	<p>All unattended self service (USS) sites must have the nozzle trigger latching mechanisms removed or disarmed. In addition the dispensing area(s) and position(s) of any emergency equipment should have adequate illumination.</p> <p>Indirect D.Reg 8</p>				

4.2.2.4 2	D&MG 14 Reg.8 (indirect)	The Control Point at attended Installations should be located where the operator can provide supervision over fuelling activities. The view must not be obstructed by other buildings, structures or by a road tanker positioned for a fuel delivery. Indirect D.Reg 8				
4.2.2.4 3	D&MG 14 Reg.8 (indirect)	Interceptor vent pipes must extend to a minimum of 2.4 m above ground level and must not be within 3 m of access roads or building apertures. NB: Vent pipes in Germany must be Stadt approved and may be less than 2.4m. Indirect D.Reg 8				
4.2.2.4 4	D&MG 14 Reg.1 (indirect)	All Tank vent pipes should be identified by their associated tank number. Indirect D.Reg 1				
4.2.2.4 5	D&MG 14 Reg.1 (indirect)	All fill/receipt points should be identified with the number, fuel type and capacity of the associated tank. Indirect D.Reg 1				
4.2.2.4 6	APEA Reg.8 (indirect)	Tank Contents Measurement Method. All tanks or compartments should be provided with a means of ascertaining the quantity of fuel stored. This may be by use of a dipstick or by some means of tank contents gauge. *Indicate which method is used in the remarks column. Manual Dip* Auto Tank Gauge* Indirect D.Reg 8				
4.2.2.4 7	D&MG 14 Reg.8 (indirect)	The storage tanks are fitted with overfill prevention devices or the unit have adopted a suitable operating procedure to prevent overfilling. Indirect D.Reg 8				
4.2.2.4 8	D&MG 14 Reg.8 (indirect)	For petrol installations the tank vent pipe is to be fitted above ground with a flame arrestor, designed to BS 7244. Indirect D.Reg 8				
4.2.2.4 9	D&MG 14 Reg.1 (indirect)	The mains electric incoming switch must be labelled "MAINS ISOLATING SWITCH". Indirect D.Reg 1				
4.2.2.5 0	D&MG 14 Reg.1 (indirect)	Supplies to AFDS, Wet Stock Management (WSM) systems and leak detection systems must be fed by individual dedicated circuits. Miniature circuit breakers feeding such circuits are to be clearly labelled. "DO NOT SWITCH OFF". Indirect D.Reg 1				
4.2.2.5 1	JSP 317 D&MG 14 Reg.4 (indirect)	Emergency switching. The emergency (Fireman's) switch to disconnect all pumps/dispensers and their associated equipment from the installation should be clearly identified with a sign stating "FUEL PUMPS SWITCH OFF HERE". In order to comply with the Disability Discrimination Act 1995, when the installation is unattended, the emergency switch must be installed in a location which is accessible to all installation operators. Indirect D.Reg 4				
4.2.2.5 2	D&MG 14 Reg.1 (indirect)	A permanent label is to be fitted at all earthing and bonding connection points stating "SAFETY ELECTRICAL CONNECTION – DO NOT REMOVE" Indirect D.Reg 1				

4.2.2.5 3	DMG 14 Reg.8 (indirect)	If a canopy is fitted the minimum height from the ground to the underside of the lowest part of the canopy is to be 5.3m. NB: The max height sign may be less than 5.3m however the actual height of the canopy should be an additional 1m. Indirect D.Reg 8				
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4.2.3 Fire, Health & Safety			GRADING			
			G	R	N/A	Remarks
Ref						
4.2.3.1	JSP 317 Reg.1 (indirect)	Above ground storage tanks are to be marked with the correct NATO Product and Grade Identification markings. These markings must be visible from all directions. Indirect D.Reg 1				
4.2.3.2	JSP 317 Reg.1 (indirect)	Above ground Class I tanks shall be marked with 'Highly Flammable, No Smoking, No Naked Lights'. Indirect D.Reg 1				
4.2.3.3	JSP 317 Reg.1 (indirect)	Above ground Class II tanks shall be marked 'Flammable Liquid, No Smoking, No Naked Lights'. Indirect D.Reg 1				
4.2.3.4	JSP 317 Reg.8 (indirect)	Washing & changing facilities are to be provided for personnel at the place of work. In addition, the following items must also be provided: Barrier Cream and After Work Cream. Eyewash (In Date).Emergency First Aid Kit. Indirect D.Reg 8				
4.2.3.5	JSP 317 Reg.1 (indirect)	Appropriate Personal Protective Equipments (PPE) and Respiratory Protective Equipment (RPE) is provided and used by all operators. Indirect D.Reg 1				
4.2.3.6	JSP 317 JSP 426 Reg.4 (indirect)	An installation specific fire plan is to be available at the installation. It should include details of : <ul style="list-style-type: none"> • Fire detection and alarm systems • Water and other chemical firefighting agents • Firefighting equipment • Emergency shut down procedures • Emergency evacuation procedures & assembly points • Staff fire training • Duties of persons nominated in the plan • Arrangements for testing and updating the plan Indirect D.Reg 4				
4.2.3.7	JSP 317 Reg.8 (indirect)	If the installation is unmanned i.e. it has a Ground Fuel Management System (GFMS), a telephone must be provided. If the installation is manned the attendant must know the location of the nearest telephone. Indirect D.Reg 8				

4.2.3.8	JSP 426 JSP 317 Reg.4 (indirect)	<p>Fire Safety Notices & Fire Action Notices must be displayed in order to comply with the Health and Safety (Safety Signs and Signals) Regulations 1996. Locations and quantities should relate to the local risks and be the result of a risk assessment.</p> <p>Indirect D.Reg 4</p> 				
4.2.3.9	JSP 317 Reg.4 (indirect)	<p>Smoking or Smoking materials are not permitted in the hazardous area. Personnel are to deposit any smoking materials in a safe designated contraband area before entering a hazardous zone or likely hazardous area.</p> <p>Indirect D.Reg 4</p>				
4.2.3.10	JSP 317 Reg.4 (indirect)	<p>A high standard of cleanliness is to be maintained at the installation. Rubbish of any kind must not be allowed to accumulate, and the growth of vegetation is to be controlled so as not to present a fire hazard.</p> <p>Indirect D.Reg 4</p>				
4.2.3.11	JSP 317 Reg.8 (indirect)	<p>Grass and Vegetation is to be cut back to a minimum of 15m. Isolated deciduous trees are permitted but conifers must be removed. Grass cutting and removal of vegetation must be carried out in accordance with the MoD Safety Rules and Procedures for Work on Petroleum installations.</p> <p>Indirect D.Reg 8</p>				
4.2.3.12	JSP 317 Reg.4 (indirect)	<p>The quantity and location of Fire Fighting apparatus will be determined by the Unit Fire Officer, however as a minimum requirement 2 x 9 Ltr Foam extinguishers should be provided for the first four dispense pumps. An additional extinguisher will be required for each additional two pumps.</p> <p>4 = 2 10 = 5 5 = 2 11 = 5 6 = 3 12 = 6 7 = 3 13 = 6 8 = 4 14 = 7 9 = 4 15 = 7</p> <p>Indirect D.Reg 4</p>				

4.2.4 Environmental Protection		GRADING			
		G	R	N/A	Remarks
Ref					
4.2.4.1	<p>JSP 317 Reg.4 (indirect)</p> <p>Spillages to be mopped up immediately using approved absorbent material which must be removed from the area for safe disposal after use.</p> <p>Indirect D.Reg 4</p>				
4.2.4.2	<p>JSP 317 Reg.4 (indirect)</p> <p>A Pollution Control Point (PCP) should be established close to the MTFI. In addition to the Pollution Control Sorbents (PCS) which are held within the PCP, the following additional items should also be held:</p> <p>Dustpan and Brush. Stiff Broom. Heavy duty plastic sacks and ties.</p> <p>Indirect D.Reg 4</p>				

4.2.4.3	JSP 317 Reg.4 (indirect)	The unit must hold and maintain a local Spillage Register. All spillages are to be recorded and the forwarded to the Pollution Control Officer (PCO), who will collate the establishments, combined spill data. Indirect D.Reg 4				
4.2.4.4	JSP 317 Reg.4 (indirect)	Spillage Immediate Action Posters are to be prominently displayed at all Pollution Control Points and locations where F&L is stored. Indirect D.Reg 4				

4.2.5 Operating Procedures			GRADING			
			G	R	N/A	Remarks
Ref						
4.2.5.1	JSP 317 Reg.10 (indirect)	Every effort is to be made to eliminate water from fuel storage tanks. The following applicable procedures should be followed to ensure water is kept to a minimum: Tanks fitted with automatic water detection and ATG are to be checked once a month Tanks with ATG are to be checked for water once a week. Tanks without ATG are to be checked whenever the tank contents are dipped i.e daily. Indirect D.Reg 10				
4.2.5.2	JSP 317 Reg.10 (indirect)	Security. When not in use, all manhole covers, dip hatch covers, outlet points and dipsticks are to be locked. Keys are to be held in safe custody under local arrangements. This requirement may be waived by the Fuels Officer in Charge if the dipsticks and sampling hatches are located inside a secure building. Indirect D.Reg 10				
4.2.5.3	JSP 317 Reg.8 (indirect)	Bottled LPG: It is possible to store a small amount of LPG at the MTFI providing the following criteria is met: Maximum permitted quantity is 400Kg irrespective of whether the cylinders are full or empty. The LPG storage should not adversely affect the safety of the site. The cylinders must be secured in a metal cage positioned in the open air. Indirect D.Reg 8				

5. Oil Fuel Depot (OFD)

5.1 OIL FUEL DEPOT (OFD) COMPOSITION		GRADING		
		G	R	N/A
Ref	ANY ADDITIONAL INFORMATION			
5.1.1				

STORAGE TANKS

Tank No.	Capacity	Product	Above/ Below Ground	Construction (GRP/Steel-Double/Single Skin)	Redundant	Decommissioned	Remarks

PUMPS

Pump No.	Serial No.	Make	Product	Remarks

INTERCEPTORS

Int No.	Construction (GRP/Brick/Steel)	Max Capacity (Ltrs)	Type (Full Retention or Bypass)	Class (1 or 2)	Remarks

5.2 PETROLEUM STORAGE DEPOT (PSD) OIL FUEL DEPOT (OFD)

Required for 1st & 2nd Party Assurance Audit and 3rd Party Regulatory Audit for all sites

5.2.1 Installation Maintenance Documentation		GRADING		
		G	R	N/A
Ref				

5.2.1.1	DIO PG 06/12 Reg.9 (direct)	<p>Inspection of the Fuel Infrastructure and Flammable Goods Facilities (DIO Practitioner Guidance 06/12): : An Inspection of the Fuel Infrastructure and Flammable Goods Facilities was carried out on __*__. A Certificate of Fitness for Continued Use was Issued for a period of __*__ months. If the facility was considered 'Not Fit For Continued Use' or the unit were given a specified timeframe to rectify observations in the 'Table of Defects', which has lapsed without rectification, grade this question as Red and answer the following 'Action Plan' question.</p> <p>*Details to be entered in Comments Box detailing; Inspection Date, Valid for a period of and what grading the site has been given (Satisfactory/Unsatisfactory).</p> <p>**If this question is graded Red, answer the following Action Plan question. FGSR Note Direct Regulation Non-compliance (D.Reg 9)</p>				High Hazard
5.2.1.2	DIO PG 06/12 Reg.9 (indirect)	<p>Inspection of the Fuel Infrastructure and Flammable Goods Facilities Action Plan (If applicable): An Action Plan has been produced and funding has been allocated to rectify the specific observations detailed in the 'Table of defects' which warranted the 'Not Fit for Continued Use' grading.</p> <p>Indirect D.Reg 9</p>				
5.2.1.3	DIO PG 05/12 Reg.9 (direct)	<p>Electrical Systems Test (Annual): The Installations Electrical System was tested iaw the requirements of DMG 14 on __*__ by a Compex 7&8 qualified electrician or equivalent using the correct, serialised 'Filling Station Electrical Periodic Inspection Report' forms* and was graded as 'Satisfactory'. An 'Unsatisfactory' grade should be awarded 'Red'.</p> <p>*Details to be entered in Comments Box detailing; Inspection Date and what grading the site has been given (Satisfactory/Unsatisfactory).</p> <p>**If this question is graded Red, answer the following Electrical Test Action Plan question. FGSR Note Direct Regulation Non-compliance (D.Reg 9)</p>				High Hazard
5.2.1.4	DIO PG 05/12 Reg.8 (indirect)	<p>Electrical Systems Test Action Plan (If applicable): An Action Plan has been produced and funding has been allocated to rectify the specific observations which resulted in the 'Unsatisfactory' Electrical Test grading.</p> <p>Indirect D.Reg 8</p>				
5.2.1.5	JSP 317 Reg.8 (indirect)	<p>Lightning Protection (If applicable) If the installation is located in an area susceptible to lightning BS 6651 and BS EN 62305 are to be consulted to determine whether lightning protection is required. If it is required, protection installed at installations constructed prior to 31 Aug 08 is to be maintained iaw the requirements of BS 6651 until such time that the installation is upgraded, after which BS EN 62305 will apply. Lightning protection installed on or after 31 Aug 08 is to be installed and maintained iaw the requirements of BS EN 62305.</p> <p>Indirect D.Reg 8</p>				
5.2.1.6	PG 05/12 Reg.9 (indirect)	<p>Storage tanks: Visually check exterior of storage tanks including associated equipment on 3 monthly basis. Last inspected __*__.</p> <p>*Enter details into the Comment Box</p> <p>Indirect D.Reg 9</p>				High Hazard
5.2.1.7	PG 05/12 Reg.9 (indirect)	<p>Tank manholes must be stamped with the following:</p> <p>Date of last inspection/cleaning Carried out by Date of next inspection.</p> <p>Indirect D.Reg 9</p>				

5.2.1.8	PG 05/12 Reg.9 (indirect)	Pumps have been maintained iaw manufacturers recommendations every 3 months and inspected for correct operation on a 6 monthly basis. Indirect D.Reg 9				
5.2.1.9	PG 05/12 Reg.9 (indirect)	Flow meter accuracy has been checked and details have been recorded in the local maintenance log (annually). Indirect D.Reg 9				
5.2.1.10	PG 05/12 Reg.9 (indirect)	Pipelines/work pressure have been tested at the prescribed intervals to 150% of normal working pressure. (36 month intervals). Indirect D.Reg 9				
5.2.1.11	JSP 317 Reg.2 (direct)	<p>Oil Water Interceptor (OWI) Design: The OWI should meet the following specifications:</p> <ul style="list-style-type: none"> • Minimum capacity of 7600 litres; and greater than the smallest compartment of the delivery tanker. • Full retention • Class 1 (if draining to Surface or Foul Water) or Class 2 (if draining to Foul Water only) • Interceptor vent pipes must extend to a minimum of 2.4 m above ground level and must not be within 3 m of access roads or building apertures. <p>If it does not meet the above conditions, and an Environmental Risk Assessment has not been produced to mitigate this risk, a 'Red' grade must be awarded for this question.</p> <p>If an Environmental Risk Assessment has been produced; which mitigates the design shortcomings, this question can subsequently be graded as Green.</p> <p>If the OWI does not meet the above specifications; answer the following mitigation question below. FGSR Note Direct Regulation Non-compliance (D.Reg 2)</p>				High Hazard
5.2.1.12	JSP 317 Reg.2 (direct)	<p>OWI Mitigation - Pollution ERA: A Pollution ERA, which has been updated within the previous 12 months, has been produced to mitigate the increased risk created by the inadequate OWI design.</p> <p>If the Pollution ERA mitigates the inadequate OWI design by demonstrating a solution that is equivalent or better than the protection afforded by a suitable OWI, subsequent assessments can be assessed as Green. FGSR Note Direct Regulation Non-compliance (D.Reg 2)</p>				High Hazard

5.2.1.1 3	JSP 317 Reg.9 (direct)	<p>OWI Maintenance: These assets are maintained under Project Aquatrine by the service providers. As a minimum, every 6 months or iaw manufacturers' instructions, OWIs should be physically inspected to:</p> <ul style="list-style-type: none"> • Ensure the Integrity of OWI • Identify the quantity of any accumulated F&L and silt. • Confirm that all electrical equipment is functioning correctly i.e Alarms. • Inspect the Condition of any coalescing devices and replace if necessary. <p>There must be evidence to clearly demonstrate that all the above points have been completed for this serial to be graded compliant.</p> <p>The last inspection of the Interceptor was conducted by ___*___ on ___*___. If this date exceeds 6 months or the date of the last inspection cannot be ascertained award a 'Red' grade for this question.</p> <p>*Details to be entered in Comments Box. FGSR Note Direct Regulation Non-compliance (D.Reg 9)</p>				High Hazard
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5.2.2 Operation & Function		GRADING					
Ref		G	R	N/A	Remarks		
5.2.2.1	JSP 317 Reg.1 (indirect)	All primary pipe work is to be identified at every junction, valve, pump, separator, monitor and ground penetration with the relevant colour coded band in accordance with Defence Standard 05-52 (Part 2). In addition arrows should be displayed on all pipe work to identify the direction of flow. Indirect D.Reg 1					
5.2.2.2	JSP 317 Reg.1 (indirect)	Each direct fill or offset fill point is to be marked with its associated tank or compartment number and fuel type. The markings are to be as close as possible to the road tankers delivery hose connection point. Indirect D.Reg 1					
5.2.2.3	JSP 317 Reg.4 (indirect)	The installation should have an effective means of both raising the alarm and giving warning in case of fire. It should be audible to all those likely to be effected by the fire. A telephone must be provided at the facility. Indirect D.Reg 4					
5.2.2.4	JSP 317 Reg.10 (indirect)	An effective means of communication should be provided between personnel involved in the loading/unloading operations, and other parts of the site such as the control room. If radios are used they must be suitably rated for use in the hazardous area. Indirect D.Reg 10					
5.2.2.5	JSP 317 Reg.10 (indirect)	The changing or removal of clothing which has been splashed with F&L products is prohibited in the hazardous area. Clothing contaminated with IP Class I or II products should only be removed after saturating with water from a drench shower which is to be sited in the vicinity of the receipt/issue point. If no drench shower is provided a risk assessment is to be produced to identify an alternative means of saturation. Indirect D.Reg 10					
5.2.2.6	JSP 317 Reg.8 (direct)	Above Ground Storage Tanks- Secondary Containment The bund wall must be capable of retaining 110% of the largest container within the bund or 25% of the aggregate of multiple containers, whichever is greater. FGSR Note Direct Regulation Non-compliance (D.Reg 8)					High Hazard

5.2.2.7	JSP 317 Reg.8 (direct)	Above Ground Storage Tanks- Secondary Containment The bund wall must: Be impervious to liquid Not normally be higher than 1.5m high. Be fitted with crash protection if susceptible to impact damage e.g adjacent to a vehicle manoeuvring area. FGSR Note Direct Regulation Non-compliance (D.Reg 8)				High Hazard
5.2.2.8	JSP 317 Reg.8 (indirect)	Above Ground Storage Tanks- Secondary Containment. In order to prevent jetting; a phenomenon caused when the primary container fails and F&L is propelled at force beyond the secondary containment, the bund wall is not to be constructed too close to the tank. Indirect D.Reg 8				
5.2.2.9	JSP 317 Reg.8 (direct)	Above Ground Storage Tanks - Secondary Containment The bund base and walls must not be penetrated by any valve, pipe or other opening which is used for draining the bund. Where a tank fill or draw off pipe must pass through the bund base or wall, the hole must be carefully sealed with a fire resistant seal to prevent oil escaping. FGSR Note Direct Regulation Non-compliance (D.Reg 8)				High Hazard
5.2.2.10	JSP 317 Reg.2 (indirect)	Above Ground Storage Tanks - Secondary Containment Rainwater which collects in the sump must be removed on a regular basis to ensure the bund capacity is maintained. This water is to be disposed of appropriately to ensure no pollution occurs. Indirect D.Reg 2				
5.2.2.11	JSP 317 Reg.9 (indirect)	Inspection of Bunds - Bunds should be regularly inspected for signs of damage and checked for water by the operator on a weekly basis. Indirect D.Reg 9				
5.2.2.12	HSG 176 Reg.8 (indirect)	Pumps are potential ignition sources and should be located outside the bund, on an impervious base, preferably in the open air. The minimum recommended safety distance from buildings, boundaries and sources of ignition is 7.5m for a large standard pump, however this can be reduced to 3m if the pumps capacity is <100m ³ / hr. Indirect D.Reg 8				
5.2.2.13	HSG 176 Reg.8 (indirect)	The bund should not be used for the storage of flammable liquid containers, gas cylinders (full or empty) or other hazardous substances. I Indirect D.Reg 8				
5.2.2.14	JSP 317 Reg.2 (indirect)	Above Ground Storage Tanks - Secondary Containment If oil or a mixture of oil and water is found in the bund it must be disposed of in accordance with current Hazardous Waste Regulations. Indirect D.Reg 2				
5.2.2.15	Oil Storage Regs 3 (3) Reg.8 (indirect)	Above Ground Storage Tanks- Secondary Containment Valves should be as resistant to unauthorised interference and vandalism as far as is feasibly possible, with lockable or removable hand wheels. Indirect D.Reg 8				
5.2.2.16	OSR 01 Reg 3(3) Reg.8 (indirect)	Above Ground Storage Tank- Secondary Containment All tank vent pipes, valves, filters, sight gauges and any other ancillary equipment with the exception of the fill pipe, draw off pipe or pump if the fuel has a flashpoint of less than 32°C, must be positioned within the bund wall. Indirect D.Reg 8				
5.2.2.17	OSR 01 Reg 3(3) Reg.8 (indirect)	Above Ground Storage Tanks Valves should be marked to indicate whether they are open or closed, kept locked when not in use and fitted with a blanking cap or plug. Indirect D.Reg 8				

5.2.2.1 8	JSP 317 Reg.8 (indirect)	<p>Above Ground Storage Tanks - Separation distances for 'small' tanks. A small tank is considered to be a tank with a diameter of less than 10m. The minimum separation distances from site boundaries, fixed sources of ignition, buildings and process areas for single small tanks are as follows:</p> <p>Tank Capacity (m³) Separation (m) Less than or equal to 1 1* Greater than 1 and less than or equal to 5 4 Greater than 5 and less than or equal to 33 6 Greater than 33 and less than or equal to 100 8 Greater than 100 and less than or equal to 250 10 Greater than 250 15</p> <p>*In this instance the tank must be sited at least 2m from doors, plain glazed windows, other openings or means of escape. In addition they must not be below any openings from an upper floor, regardless of vertical distance.</p> <p>Indirect D.Reg 8</p>				
5.2.2.1 9	JSP 317 Reg.8 (indirect)	<p>Above Ground Storage Tanks - Separation distances for groups of 'small' tanks . For the purpose of determining the safe separation distances from site boundaries, buildings, process areas and fixed sources of ignition a group of small tanks may be regarded as one tank. The minimum distances for such tanks are as follows:</p> <p>Tank Capacity (m³) Separation (m) Less than or equal to 3 1* Greater than 3 and less than or equal to 15 4 Greater than 15 and less than or equal to 100 6 Greater than 100 and less than or equal to 300 8 Greater than 300 and less than or equal to 750 10 Greater than 750 and less than or equal to 8000 15</p> <p>*In this instance the tank must be sited at least 2m from doors, plain glazed windows, other openings or means of escape. In addition they must not be below any openings from an upper floor, regardless of vertical distance.</p> <p>Indirect D.Reg 8</p>				
5.2.2.2 0	JSP 317 Reg.9 (direct)	<p>Electrical installations must be designed, installed and maintained in accordance with the current construction standards and comply with the hazardous area in which they are located.</p> <p>FGSR Note Direct Regulation Non-compliance (D.Reg 9)</p>				
5.2.2.2 1	JSP 317 Reg.8 (indirect)	<p>All metal parts of the installation should be bonded together and earthed to prevent the accumulation of electrostatic charge.</p> <p>Indirect D.Reg 8</p>				
5.2.2.2 2	JSP 317 Reg.1 (indirect)	<p>A schematic diagram showing the installation layout and valve numbering is to be mounted and displayed in a prominent position in the pump house or other suitable location at the installation.</p> <p>Indirect D.Reg 1</p>				
5.2.2.2 3	JSP 317 Reg.1 (indirect)	<p>All installation valves are to be numbered using a disc no smaller than 100 mm in diameter. All valves must correspond exactly with the information provided on the schematic.</p> <p>Indirect D.Reg 1</p>				

5.2.2.2 4	JSP 317 Reg.10 (indirect)	Security. When not in use, all manhole covers, dip hatch covers, outlet points and dipsticks are to be locked. Keys are to be held in safe custody under local arrangements. Indirect D.Reg 10				
5.2.2.2 5	JSP 317 Reg.8 (indirect)	To prevent trespassing or tampering storage areas are to be enclosed by a substantial fence of at least 1.8m high, constructed of welded mesh or chain link. Indirect D.Reg 8				
5.2.2.2 6	JSP 317 Reg.2 (indirect)	The installation has an integral Full Retention Separator/Oil Water Interceptor (OWI) which offers sufficient environmental protection to the surrounding area. Indirect D.Reg 2				
5.2.2.2 7	JSP 317 Reg.8 (indirect)	The OWI must be fitted with a high-level alarm & automatic shut off valve. Indirect D.Reg 8				
5.2.2.2 8	JSP 317 Reg.8 (direct)	The Road Tanker Delivery Stand should be located in a safe, well ventilated position in the open and should offer a clear, unobstructed forward escape route. FGSR Note Direct Regulation Non-compliance (D.Reg 8)				High Hazard
5.2.2.2 9	Reg.10 (indirect)	The Road Tanker Delivery Stand – Attended. Prior to a bulk receipt at an attended installation, the delivery driver must be presented with a notice detailing safe delivery/receipt and emergency procedures. The driver is to read and sign the notice to confirm they understand the procedures before commencing delivery. FGSR Note Indirect Regulation Non-compliance (Reg 10)				
5.2.2.3 0	JSP 317 Reg.8 (direct)	The minimum recommended distance of a Road Tanker Delivery Stand from occupied buildings, the site boundary or a fixed source of ignition is 10m or the distance calculated on the DSEAR RA; whichever is greater. This does not apply to Bulk Waste, UETF, FFO and Domestic Heating Tanks. FGSR Note Direct Regulation Non-compliance (D.Reg 8)				High Hazard
5.2.2.3 1	JSP 317 Reg.8 (direct)	The Road Tanker Delivery Stand. The delivery stand should be a minimum of 15m x 5m. If this isn't practicable, signage and barriers are to be used to restrict vehicle and personnel access during transfer operations. FGSR Note Direct Regulation Non-compliance (D.Reg 8)				High Hazard
5.2.2.3 2	JSP 317 Reg.8 (direct)	The Road Tanker Delivery Stand. Road tankers shall not be made to wait on public or internal busy roads. The delivery stand should be substantially level to ensure full extraction during deliveries.. If the delivery stand is in close proximity to an above ground storage tank, adequate protection against impact damage is to be provided. FGSR Note Direct Regulation Non-compliance (D.Reg 8)				High Hazard
5.2.2.3 3	JSP 317 Reg.8 (direct)	The Road Tanker Delivery Stand must be impermeable to hydrocarbons and be capable of withstanding the axle weight of a fully laden delivery tanker. FGSR Note Direct Regulation Non-compliance (D.Reg 8)				High Hazard

5.2.2.3 4	JSP 317 Reg.1 (indirect)	<p>The following 'Disconnect the Hose' sign must be displayed at tanker Receipt/Issue points. The sign must be visible from the vehicle cab when the dispensing hose is connected to the installation:</p> <p>Indirect D.Reg 1</p> 				
5.2.2.3 5	JSP 317 Reg.8 (direct)	<p>In addition to the Road Tanker Delivery Stand, traffic areas should also be impermeable to hydrocarbons and be capable of holding any spilled residue until such time as the drainage system can accept and convey the spillage to the OWI.</p> <p>FGSR Note Direct Regulation Non-compliance (D.Reg 8)</p>				High Hazard
5.2.2.3 6	JSP 317 Reg.8 (indirect)	<p>Roadways shall be laid out to provide easy access to and from all parts of the installation. A one-way traffic system should be adopted whenever possible, particularly in areas where vehicles are loaded and unloaded.</p> <p>Indirect D.Reg 8</p>				
5.2.2.3 7	JSP 317 Reg.8 (indirect)	<p>Roads shall be designed to enable all-weather access to tanks for fire-fighting purposes. Where 2-way traffic is encountered the width of the road shall be sufficient to allow 2 vehicles to pass. Single-track roads shall be provided with lay-byes. Curvatures, contours, bearing strengths, junctions and clearance heights shall accommodate the largest vehicles, including emergency vehicles, likely to use the roads.</p> <p>Indirect D.Reg 8</p>				
5.2.2.3 8	JSP 317 Reg.8 (indirect)	<p>Working areas associated with storage tanks, including loading and unloading points, should be adequately lit when in use. An average luminance of at least 50 lux is recommended at ground level, on stairs at access platforms etc. It may be necessary to increase this to 100 lux where perception of detail is required, for example to read level gauges.</p> <p>Indirect D.Reg 8</p>				
5.2.2.3 9	JSP 317 Reg.8 (indirect)	<p>Bonding. Aviation bulk fuel dispense and receipt points shall be provided with a bonding cable. The bonding cable shall be connected to the fixed earth network, which in turn will be connected to the dispense/ receipt pipeline.</p> <p>Indirect D.Reg 8</p>				
5.2.2.4 0	JSP 317 Reg.1 (indirect)	<p>The following Hazard Warning Sign must be displayed on all approaches to the facility in the local language and English:</p> <p>Indirect D.Reg 1</p> 				
5.2.2.4 1	JSP 317 Reg.10 (indirect)	<p>A high standard of cleanliness is to be maintained at the installation. Rubbish of any kind must not be allowed to accumulate, and the growth of vegetation is to be controlled so as not to present a fire hazard.</p> <p>Indirect D.Reg 10</p>				

5.2.3.1 0	HSG 176 Para 151 Reg.10 (indirect)	Combustible material such as vegetation, litter or rubbish should not be allowed to accumulate in the bund as this will increase the risk of fire. Indirect D.Reg 10				
5.2.3.1 1	JSP 317 Reg.9 (indirect)	Grass and Vegetation is to be cut back to a minimum of 15m. Isolated deciduous trees are permitted but conifers must be removed. Grass cutting and removal of vegetation must be carried out iaw the MoD Safety Rules and Procedures for Work on Petroleum installations. Indirect D.Reg 9				

5.2.4 Environmental Protection		GRADING				
		G	R	N/A	Remarks	
Ref						
5.2.4.1	JSP 317 Reg.4 (indirect)	Spillages to be mopped up immediately using approved absorbent material which must be removed from the area for safe disposal after use. Indirect D.Reg 4				
5.2.4.2	JSP 317 Reg.4 (indirect)	A Pollution Control Point (PCP) is to be established at the installation. The PCP must be clearly identifiable, stocked appropriately and be maintained on a regular basis. Indirect D.Reg 4				
5.2.4.3	JSP 317 Reg.4 (indirect)	The unit must hold and maintain a local Spillage Register. All spillages are to be recorded and the forwarded to the Pollution Control Officer (PCO), who will collate the establishments, combined spill data. Indirect D.Reg 4				
5.2.4.4	JSP 317 Reg.4 (indirect)	Spillage Immediate Action Posters are to be prominently displayed at all Pollution Control Points and locations where F&L is stored. Indirect D.Reg 4				

5.2.5 Operating Procedures		GRADING				
		G	R	N/A	Remarks	
Ref						
5.2.5.1	JSP 317 Reg.10 (indirect)	Elimination of Water from Storage Tanks. Water in fuel tanks is kept to a minimum. •Tanks fitted with automatic water detection and an integrated water removal systems, or (ATG), compliant with STANAG 7011, are to be checked for water once a month. •Tanks fitted with an ATG, compliant with STANAG 7011, are to be checked for water once a week. Where the tank has not issued or received fuel during the previous week, or where local conditions preclude weekly water checks from being conducted, the frequency of checks may be extended to a period not exceeding one month. •Tanks which are not fitted with an ATG are to be checked for water whenever the tank contents are dipped. If water is detected in a tank, not fitted with an automatic water detection system which incorporates an integrated water removal system, a works service request is to be raised for its immediate removal. The results of water checks are to be recorded and stock adjustments made iaw DLF. Indirect D.Reg 10				
5.2.5.2	JSP 317 Reg.10 (indirect)	The following basic Quality Control measures are instigated at the installation: Documentation is checked prior to receipt of any fuel to confirm correct product and grade is being delivered. A sample is to be taken from the tanker prior to commencing receipt operations. Sample must be clear and free from suspended matter and water. Observe proper maintenance procedures for all facilities. Ensure the correct use and placement of filtration equipment. Indirect D.Reg 10				

5.2.5.3	JSP 317 Reg.10 (indirect)	<p>Before any product is transferred into storage the following actions must be taken:</p> <p>All storage tanks to be used must be suitable for the product and if empty, certified clean. If they contain product it must be of the same grade, free from contamination and within specification and retest date</p> <p>All filters, connections and associated pipe work must be checked to ensure cleanliness, correct connection and operation. All hatches are to be secured to avoid the ingress of water and other contaminants.</p> <p>Indirect D.Reg 10</p>				
5.2.5.4	JSP 317 Reg.10 (indirect)	<p>When new deliveries of fuel are receipted into storage, the bulk tank contents shall be allowed to settle for a minimum of 2 hrs before any fuel is issued, providing the fuel is filtered into storage. If fuel is filtered into and out of storage i.e a BFCV and Installations filtration systems; in this instance no settling period is required.</p> <p>Indirect D.Reg 10</p>				
5.2.5.5	DLF Reg.10 (indirect)	<p>Frequency of Dips</p> <p>Daily. All In Use bulk fuel storage tanks and Bulk Fuel carrying Vehicles (BFCV) are to be dipped daily. This can be carried out by ATG (if accurate to +/- 1mm and +/- 0.5oC) or manually and, whenever possible before issues of the day.</p> <p>Weekly. The dip, water check and temperature measurement (temperature is not required for BFCVs) of all bulk storage tanks, and BFCVs, including those where no fuel movement has taken place, is to be carried out once a week under the supervision of an authorised officer, normally Fridays.</p> <p>Last Working Day of the Month. Dips are to be carried out on the last working day of the month, following the procedures at Paragraph 3b above and under the supervision of an authorised officer (OC Supply at RAF Units).</p> <p>Indirect D.Reg 10</p>				
5.2.5.6	JSP 317 Reg.10 (indirect)	<p>Turnover of Stocks</p> <p>Stocks are always to be issued on the principle of using oldest stock first. The age of stock is to be assessed by the length of time it has been in storage in the installation. Where an installation has two or more tanks, the tanks are to be filled and emptied in rotation.</p> <p>Indirect D.Reg 10</p>				

6. Aviation Bulk Fuel Installations (BFI)

STORAGE TANKS

Tank No.	Capacity	Product	Above/ Below Ground	Construction (GRP/Steel- Double/Single Skin)	Redundant	Decommissioned	Remarks

METERING/DISPENSE PUMPS

Pump No.	Serial No.	Make	Product	Remarks

FILTER WATER SEPARATORS

FWS No.	Serial No.	Coalescer Elements		Differential Pressure Gauge		Date Pressure Relief Valve Tested to 110%	Remarks
		Make	Date installed	Calibrated	Last Inspected		

INTERCEPTORS

Int No.	Construction (GRP/Brick/Steel)	Max Capacity (Ltrs)	Type (Full Retention or Bypass)	Class (1 or 2)	Remarks

6.1 AVIATION BULK FUEL INSTALLATION

Required for 1st & 2nd Party Assurance Audit and 3rd Party Regulatory Audit for all sites

6.1.1 Installation Maintenance Documentation		GRADING				
		G	R	N/A	Remarks	
<p>Note: BF(G) based units will be inspected under an alternative regime. DSEA FGSR should be contacted for guidance when completing this section.</p>						
Ref						
6.1.1.1	DIO PG 06/12 Reg.9 (direct)	<p>Inspection of the Fuel Infrastructure and Flammable Goods Facilities (DIO Practitioner Guidance 06/12) :</p> <p>An Inspection of the Fuel Infrastructure and Flammable Goods Facilities was carried out on __*__. A Certificate of Fitness for Continued Use was Issued for a period of __*__ months. If the facility was considered 'Not Fit For Continued Use' or the unit were given a specified timeframe to rectify observations in the 'Table of Defects', which has lapsed without rectification, grade this question as Red and answer the following 'Action Plan' question.</p> <p>*Details to be entered in Comments Box detailing; Inspection Date, Valid for a period of and what grading the site has been given (Satisfactory/Unsatisfactory).</p> <p>**If this question is graded Red, answer the following Action Plan question.</p> <p>FGSR Note Direct Regulation Non-compliance (D.Reg 9)</p>				High Hazard License Condition
6.1.1.2	DIO PG 06/12 Reg.9 (indirect)	<p>Inspection of the Fuel Infrastructure and Flammable Goods Facilities Action Plan (If applicable):</p> <p>An Action Plan has been produced and funding has been allocated to rectify all observations highlighted in the Inspection of the Fuel Infrastructure and Flammable Goods Facilities, Table of defects.</p> <p>Indirect D.Reg 9</p>				
6.1.1.3	DIO PG 05/12 Reg.9 (direct)	<p>Electrical Systems Test (Annual):</p> <p>The Installations Electrical System was tested iaw the requirements of DMG 14 on __*__ by a Compex 7&8 qualified electrician or equivalent using the correct, serialised 'Filling Station Electrical Periodic Inspection Report' forms* and was graded as 'Satisfactory'. An 'Unsatisfactory' grade should be awarded 'Red'.</p> <p>*Details to be entered in Comments Box detailing; Inspection Date and what grading the site has been given (Satisfactory/Unsatisfactory).</p> <p>**If this question is graded Red, answer the following Electrical Test Action Plan question.</p> <p>FGSR Note Direct Regulation Non-compliance (D.Reg 9)</p>				High Hazard License Condition
6.1.1.4	DIO PG 05/12 Reg.8 (indirect)	<p>Electrical Systems Test Action Plan (If applicable):</p> <p>An Action Plan has been produced and funding has been allocated to rectify the specific observations which resulted in the 'Unsatisfactory' Electrical Test grading.</p> <p>Indirect D.Reg 8</p>				
6.1.1.5	JSP 317 Reg.8 (Indirect)	<p>Lightning Protection (If applicable)</p> <p>If the installation is located in an area susceptible to lightning BS 6651 and BS EN 62305 are to be consulted to determine whether lightning protection is required. If it is required, protection installed at installations constructed prior to 31 Aug 08 is to be maintained iaw the requirements of BS 6651 until such time that the installation is upgraded, after which BS EN 62305 will apply. Lightning protection installed on or after 31 Aug 08 is to be installed and maintained iaw the requirements of BS EN 62305.</p> <p>Indirect D.Reg 8</p>				

6.1.1.6	JSP 317 Reg.2 (direct)	<p>Oil Water Interceptor (OWI) Design:</p> <p>The OWI should meet the following specifications:</p> <ul style="list-style-type: none"> • Minimum capacity of 7600 litres; and greater than the smallest compartment of the delivery tanker • Full retention • Class 1 (if draining to Surface or Foul Water) or Class 2 (if draining to Foul Water only) • Interceptor vent pipes must extend to a minimum of 2.4 m above ground level and must not be within 3 m of access roads or building apertures. <p>If it does not meet the above conditions, and an Environmental Risk Assessment has not been produced to mitigate this risk, a 'Red' grade must be awarded for this question.</p> <p>If an Environmental Risk Assessment has been produced; which mitigates the design shortcomings, this question can subsequently be graded as Green.</p> <p>If the OWI does not meet the above specifications; answer the following mitigation question below. FGSR Note Direct Regulation Non-compliance (D.Reg 2)</p>				High Hazard
6.1.1.7	JSP 317 Reg.2 (direct)	<p>OWI Mitigation - Pollution ERA:</p> <p>A Pollution ERA, which has been updated within the previous 12 months, has been produced to mitigate the increased risk created by the inadequate OWI design.</p> <p>If the Pollution ERA mitigates the inadequate OWI design by demonstrating a solution that is equivalent or better than the protection afforded by a suitable OWI, subsequent assessments can be assessed as Green.</p> <p>NB: NA in Germany where host nation standards take precedence. FGSR Note Direct Regulation Non-compliance (D.Reg 2)</p>				High Hazard
6.1.1.8	JSP 317 Reg.9 (direct)	<p>OWI Maintenance:</p> <p>These assets are maintained under Project Aquatrine by the service providers. As a minimum, every 6 months or iaw manufacturers' instructions, OWIs should be physically inspected to:</p> <ul style="list-style-type: none"> • Ensure the Integrity of OWI • Identify the quantity of any accumulated F&L and silt. • Confirm that all electrical equipment is functioning correctly i.e Alarms. • Inspect the Condition of any coalescing devices and replace if necessary. <p>There must be evidence to clearly demonstrate that all the above points have been completed for this serial to be graded compliant.</p> <p>The last inspection of the Interceptor was conducted by __*__ on __*__. If this date exceeds 6 months or the date of the last inspection cannot be ascertained award a 'Red' grade for this question.</p> <p>*Details to be entered in Comments Box. FGSR Note Direct Regulation Non-compliance (D.Reg 9)</p>				High Hazard
6.1.1.9	PG 05/12 Reg.9 (indirect)	<p>Storage tanks:</p> <p>Visually check exterior of storage tanks including associated equipment on 3 monthly basis. Last inspected __*__.</p> <p>*Enter details into the Comment Box.</p> <p>Indirect D.Reg 9</p>				

6.1.1.1 0	PG 05/12 Reg.9 (indirect)	Storage Tank Contents Gauge: Inspect external tank equipment gauges every 12 months. Last inspected ___*__. *Enter details into Comments Box. Indirect D.Reg 9				
6.1.1.1 1	JSP 317 Reg.9 (indirect)	All meters associated with the storage media are to be in good working order and calibrated. Indirect D.Reg 9				
6.1.1.1 2	PG 05/12 Reg.9 (indirect)	Flow meter accuracy has been checked and details have been recorded in the local maintenance log (annually). Indirect D.Reg 9				
6.1.1.1 3	PG 05/12 Reg.9 (indirect)	Differential pressure gauges have been checked and details have been recorded in the local maintenance log (6m). Indirect D.Reg 9				
6.1.1.1 4	PG 05/12 Reg.9 (indirect)	Pipelines/work pressure have been tested at the prescribed intervals to 150% of normal working pressure. (36m). Indirect D.Reg 9				
6.1.1.1 5	PG 05/12 Reg.9 (indirect)	Pumps have been maintained iaw manufacturers recommendations every 3 months and inspected for correct operation on a 6 monthly basis. Indirect D.Reg 9				
6.1.1.1 6	PG 05/12 Reg.9 (indirect)	Rubber hoses have been maintained as follows: Visual Inspection for damage (3m) Electrical continuity tested (6m) Pressure tested (12m) Indirect D.Reg 9				
6.1.1.1 7	PG 05/12 Reg.9 (indirect)	FWS maintenance: a) Monitoring the pressure differential across the unit. (3m) b) Inspect unit for leaks, mechanical damage and corrosion. (6m) c) Ensuring correct operation of unit. (6m) d) Test automatic water drains (where fitted) in accordance with manufacturers approved original test procedure. (6m) Note: Details of inspections and tests undertaken should be recorded in the maintenance register, together with dates of cartridge replacement – which should also be stencilled on the outside of the unit. Indirect D.Reg 9				
6.1.1.1 8	JSP 317 Reg.9 (indirect)	FWS Coalescer Element Replacement*: FWS elements should be changed when the differential Pressure (DP) across the filter exceeds 1 BAR (15 PSI) at (or corrected to) the maximum operating flow rate through the filter vessel or after 36 months, whichever occurs the soonest. a) Elements installed ___*__. b) Next change due @ 15 psi dp or ___*__. *Enter details into Comments Box. Indirect D.Reg 9				
6.1.1.1 9	PG 05/12 Reg.9 (indirect)	Tank manholes must be stamped with the following: Date of last inspection/cleaning Carried out by Date of next inspection. Indirect D.Reg 9				

6.1.2 Operation & Function		GRADING			
Ref		G	R	N/A	Remarks

6.1.2.1	JSP 317 Reg.1 (indirect)	All primary pipe work is to be identified at every junction, valve, pump, separator, monitor and ground penetration with the relevant colour coded band in accordance with Defence Standard 05-52 (Part 2). In addition arrows should be displayed on all pipe work to identify the direction of flow. Indirect D.Reg 1				
6.1.2.2	JSP 317 Reg.1 (indirect)	Each direct fill or offset fill point is to be marked with its associated tank or compartment number and fuel type. The markings are to be as close as possible to the road tankers delivery hose connection point. Indirect D.Reg 1				
6.1.2.3	JSP 317 Reg.4 (indirect)	A telephone must be provided at the installation. Indirect D.Reg 4				
6.1.2.4	HSG 176 Reg.10 (indirect)	An effective means of communication should be provided between personnel involved in the loading/unloading operations, and other parts of the site such as the control room. If radios are used they must be suitably rated for use in the hazardous area. Indirect D.Reg 10				
6.1.2.5	JSP 317 Reg.4 (indirect)	The changing or removal of clothing which has been splashed with F&L products is prohibited in the hazardous area. Clothing contaminated with IP Class I or II products should only be removed after saturating with water from a drench shower which is to be sited in the vicinity of the receipt/issue point. If no drench shower is provided a risk assessment is to be produced to identify an alternative means of saturation. Indirect D.Reg 4				
6.1.2.6	JSP 317 Reg.8 (direct)	Above Ground Storage Tanks- Secondary Containment The bund wall must be capable of retaining 110% of the largest container within the bund or 25% of the aggregate of multiple containers, whichever is greater. FGSR Note Direct Regulation Non-compliance (D.Reg 8)				High Hazard
6.1.2.7	JSP 317 Reg.8 (direct)	Above Ground Storage Tanks- Secondary Containment The bund wall must: Be impervious to liquid Not normally be higher than 1.5m high. Be fitted with crash protection if susceptible to impact damage e.g adjacent to a vehicle manoeuvring area. FGSR Note Direct Regulation Non-compliance (D.Reg 8)				High Hazard
6.1.2.8	JSP 317 Reg.8 (indirect)	Above Ground Storage Tanks- Secondary Containment. In order to prevent jetting; a phenomenon caused when the primary container fails and F&L is propelled at force beyond the secondary containment, the bund wall is not to be constructed too close to the tank. Indirect D.Reg 8				
6.1.2.9	JSP 317 Reg.8 (direct)	Above Ground Storage Tanks - Secondary Containment The bund base and walls must not be penetrated by any valve, pipe or other opening which is used for draining the bund. Where a tank fill or draw off pipe must pass through the bund base or wall, the hole must be carefully sealed with a fire resistant seal to prevent oil escaping. FGSR Note Direct Regulation Non-compliance (D.Reg 8)				High Hazard
6.1.2.10	JSP 317 Reg.2 (indirect)	Above Ground Storage Tanks - Secondary Containment Rainwater which collects in the sump must be removed on a regular basis to ensure the bund capacity is maintained. This water is to be disposed of appropriately to ensure no pollution occurs. Indirect D.Reg 2				
6.1.2.11	JSP 317 Reg.9 (indirect)	Inspection of Bunds - Bunds should be regularly inspected for signs of damage and checked for water by the operator on a weekly basis. Indirect D.Reg 9				
6.1.2.12	HSG 176 Reg.8 (indirect)	Pumps are potential ignition sources and should be located outside the bund, on an impervious base, preferably in the open air. The minimum recommended safety distance from buildings, boundaries and sources of ignition is 7.5m for a large standard pump, however this can be reduced to 3m if the pumps capacity is <100m ³ / hr. Indirect D.Reg 8				

6.1.2.1 3	HSG 176 Reg.8 (indirect)	The bund should not be used for the storage of flammable liquid containers, gas cylinders (full or empty) or other hazardous substances. Indirect D.Reg 8				
6.1.2.1 4	JSP 317 Reg.2 (indirect)	Above Ground Storage Tanks - Secondary Containment If oil or a mixture of oil and water is found in the bund it must be disposed of in accordance with current Hazardous Waste Regulations. Indirect D.Reg 2				
6.1.2.1 5	Oil Storage Regs 3 (3) Reg.8 (indirect)	Above Ground Storage Tanks- Secondary Containment Valves should be as resistant to unauthorised interference and vandalism as far as is feasibly possible, with lockable or removable hand wheels. Indirect D.Reg 8				
6.1.2.1 6	OSR 01 Reg 3(3) Reg.8 (indirect)	Above Ground Storage Tank- Secondary Containment All tank vent pipes, valves, filters, sight gauges and any other ancillary equipment with the exception of the fill pipe, draw off pipe or pump if the fuel has a flashpoint of less than 32°C, must be positioned within the bund wall. Indirect D.Reg 8				
6.1.2.1 7	OSR 01 Reg 3(3) Reg.1 (indirect)	Above Ground Storage Tanks Valves should be marked to indicate whether they are open or closed, kept locked when not in use and fitted with a blanking cap or plug. Indirect D.Reg 1				
6.1.2.1 8	JSP 317 Reg.8 (indirect)	Above Ground Storage Tanks - Separation distances for 'small' tanks. A small tank is considered to be a tank with a diameter of less than 10m. The minimum separation distances from site boundaries, fixed sources of ignition, buildings and process areas for single small tanks are as follows: Tank Capacity (m ³) Separation (m) Less than or equal to 1 1* Greater than 1 and less than or equal to 5 4 Greater than 5 and less than or equal to 33 6 Greater than 33 and less than or equal to 100 8 Greater than 100 and less than or equal to 250 10 Greater than 250 15 *In this instance the tank must be sited at least 2m from doors, plain glazed windows, other openings or means of escape. In addition they must not be below any openings from an upper floor, regardless of vertical distance. Indirect D.Reg 8				
6.1.2.1 9	JSP 317 Reg.8 (indirect)	Above Ground Storage Tanks - Separation distances for groups of 'small' tanks. For the purpose of determining the safe separation distances from site boundaries, buildings, process areas and fixed sources of ignition a group of small tanks may be regarded as one tank. The minimum distances for such tanks are as follows: Tank Capacity (m ³) Separation (m) Less than or equal to 3 1* Greater than 3 and less than or equal to 15 4 Greater than 15 and less than or equal to 100 6 Greater than 100 and less than or equal to 300 8 Greater than 300 and less than or equal to 750 10 Greater than 750 and less than or equal to 8000 15 *In this instance the tank must be sited at least 2m from doors, plain glazed windows, other openings or means of escape. In addition they must not be below any openings from an upper floor, regardless of vertical distance. Indirect D.Reg 8				
6.1.2.2 0	JSP 317 Reg.8 (direct)	Electrical installations must be designed, installed and maintained in accordance with the current construction standards and comply with the hazardous area in which they are located. FGSR Note Direct Regulation Non-compliance (D.Reg 8)				High Hazard

6.1.2.2 1	JSP 317 Reg.8 (indirect)	All metal parts of the installation should be bonded together and earthed to prevent the accumulation of electrostatic charge. Indirect D.Reg 8				
6.1.2.2 2	JSP 317 Reg.1 (indirect)	A schematic diagram showing the installation layout and valve numbering is to be mounted and displayed in a prominent position in the pump house or other suitable location at the installation. Indirect D.Reg 1				
6.1.2.2 3	JSP 317 Reg.1 (indirect)	All installation valves are to be numbered using a disc no smaller than 100 mm in diameter. All valves must correspond exactly with the information provided on the schematic. Indirect D.Reg 1				
6.1.2.2 4	JSP 317 Reg.10 (indirect)	Security. When not in use, all manhole covers, dip hatch covers, outlet points and dipsticks are to be locked. Keys are to be held in safe custody under local arrangements. Indirect D.Reg 10				
6.1.2.2 5	JSP 317 Reg.8 (indirect)	To prevent trespassing or tampering storage areas are to be enclosed by a substantial fence of at least 1.8m high, constructed of welded mesh or chain link. Indirect D.Reg 8				
6.1.2.2 6	JSP 317 Reg.2 (indirect)	The installation has an integral Full Retention Separator/Oil Water Interceptor (OWI), which offers sufficient environmental protection to the surrounding area. NB: Host nation standards take precedence in Germany. Indirect D.Reg 2				
6.1.2.2 7	JSP 317 Reg.8 (indirect)	The OWI must be fitted with a high-level alarm & automatic shut off valve. NB: Host nation standards take precedence in Germany. Indirect D.Reg 8				
6.1.2.2 8	JSP 317 Reg.8 (direct)	The Road Tanker Delivery Stand should be located in a safe, well ventilated position in the open and should offer a clear, unobstructed forward escape route. FGSR Note Direct Regulation Non-compliance (D.Reg 8)				High Hazard License Condition
6.1.2.2 9	JSP 317 Reg.10 (indirect)	The Road Tanker Delivery Stand – Attended. Prior to a bulk receipt at an attended installation, the delivery driver must be presented with a notice detailing safe delivery/receipt and emergency procedures. The driver is to read and sign the notice to confirm they understand the procedures before commencing delivery. Indirect D.Reg 10				
6.1.2.3 0	JSP 317 Reg.8 (direct)	The minimum recommended distance of a Road Tanker Delivery Stand from occupied buildings, the site boundary or a fixed source of ignition is 10m or the distance calculated on the DSEAR RA; whichever is greater. This does not apply to Bulk Waste, UETF, FFO and Domestic Heating Tanks. Direct D.Reg 8				High Hazard Environmental Condition
6.1.2.3 1	JSP 317. Reg.8 (direct)	The Road Tanker Delivery Stand. The delivery stand should be a minimum of 15m x 5m. If this isn't practicable, signage and barriers are to be used to restrict vehicle and personnel access during transfer operations. FGSR Note Direct Regulation Non-compliance (D.Reg 8)				High Hazard
6.1.2.3 2	JSP 317 Reg.8 (direct)	The Road Tanker Delivery Stand. Road tankers shall not be made to wait on public or internal busy roads. The delivery stand should be substantially level to ensure full extraction during deliveries. If the delivery stand is in close proximity to an above ground storage tank, adequate protection against impact damage is to be provided. FGSR Note Direct Regulation Non-compliance (D.Reg 8)				High Hazard

6.1.2.3 3	JSP 317 Reg.8 (direct)	The Road Tanker Delivery Stand must be impermeable to hydrocarbons and be capable of withstanding the axle weight of a fully laden delivery tanker. FGSR Note Direct Regulation Non-compliance (D.Reg 8)				High Hazard
6.1.2.3 4	JSP 317 Reg.1 (indirect)	The following 'Disconnect the Hose' sign must be displayed at tanker Receipt/Issue points. The sign must be visible from the vehicle cab when the dispensing hose is connected to the installation: Indirect D.Reg 1 				
6.1.2.3 5	JSP 317 Reg.8 (direct)	In addition to the Road Tanker Delivery Stand, traffic areas should also be impermeable to hydrocarbons and be capable of holding any spilt residue until such time as the drainage system can accept and convey the spillage to the OWI. FGSR Note Direct Regulation Non-compliance (D.Reg 8)				High Hazard
6.1.2.3 6	JSP 317 Reg.8 (indirect)	The drainage system shall be designed to minimise the surface area of any spillage, and be isolated from surface water drainage systems. In remote sites on non-MoD owned land (such as SAR refuelling sites), where an OWI cannot be installed, an environmental risk assessment must be completed for the delivery, storage and issue of fuel. The appropriate duty holder must accept any residual risk, and the USRP must make specific reference to such sites. Indirect D.Reg 8				
6.1.2.3 7	JSP 317 Reg.8 (indirect)	Roadways shall be laid out to provide easy access to and from all parts of the installation. A one-way traffic system should be adopted whenever possible, particularly in areas where vehicles are loaded and unloaded. Indirect D.Reg 8				
6.1.2.3 8	JSP 317 Reg.8 (indirect)	Roads shall be designed to enable all-weather access to tanks for fire-fighting purposes. Where 2-way traffic is encountered the width of the road shall be sufficient to allow 2 vehicles to pass. Single-track roads shall be provided with lay-byes. Curvatures, contours, bearing strengths, junctions and clearance heights shall accommodate the largest vehicles, including emergency vehicles, likely to use the roads. Indirect D.Reg 8				
6.1.2.3 9	JSP 317 Reg.8 (indirect)	Working areas associated with storage tanks, including loading and unloading points, should be adequately lit when in use. An average luminance of at least 50 lux is recommended at ground level, on stairs at access platforms etc. It may be necessary to increase this to 100 lux where perception of detail is required, for example to read level gauges. Indirect D.Reg 8				
6.1.2.4 0	JSP 317 Reg.8 (indirect)	Bonding. Aviation bulk fuels dispense and receipt points shall be provided with a bonding cable. The bonding cable shall be connected to the fixed earth network, which in turn will be connected to the dispense/ receipt pipeline. Indirect D.Reg 8				
6.1.2.4 1	JSP 317 Reg.1 (indirect)	The following Hazard Warning Sign must be displayed on all approaches to the facility in the local language and English: Indirect D.Reg 1 				

6.1.2.4 2	JSP 317 Reg.10 (indirect)	A high standard of cleanliness is to be maintained at the installation. Rubbish of any kind must not be allowed to accumulate, and the growth of vegetation is to be controlled so as not to present a fire hazard. Indirect D.Reg 10				
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6.1.3 Fire Health & Safety			GRADING			
			G	R	N/A	Remarks
Ref						
6.1.3.1	JSP 317 Reg.1 (indirect)	Above ground storage tanks are to be marked with the correct NATO Product and Grade Identification markings. These markings must be visible from all directions. Indirect D.Reg 1				
6.1.3.2	JSP 317 Reg.1 (indirect)	Class I tanks shall be marked with 'Highly Flammable, No Smoking, No Naked Lights'. Indirect D.Reg 1				
6.1.3.3	JSP 317 Reg.1 (indirect)	Class II tanks shall be marked 'Flammable Liquid, No Smoking, No Naked Lights'. Indirect D.Reg 1				
6.1.3.4	JSP 317 Reg.1 (indirect)	Washing & changing facilities are to be provided for personnel at the place of work. In addition, the following items must also be provided: Barrier Cream and After Work Cream. Eyewash (In Date). Emergency First Aid Kit. Indirect D.Reg 1				
6.1.3.5	2.2.48 i Reg.1 (indirect)	Appropriate Personal Protective Equipments (PPE) and Respiratory Protective Equipment (RPE) is provided and used by all operators. Indirect D.Reg 1				
6.1.3.6	JSP 426 JSP 317 Reg.4 (indirect)	The quantity and location of all fire fighting equipment, which is determined by the Unit Fire Officer, must reflect what is stated in the Fire Safety Risk Assessment (FSRA). Indirect D.Reg 4				
6.1.3.7	JSP 317 JSP 426 Reg.4 (indirect)	An installation specific fire plan is to be available at the installation. It should include details of : <ul style="list-style-type: none"> • Fire detection and alarm systems • Water and other chemical firefighting agents • Firefighting equipment • Emergency shut down procedures • Emergency evacuation procedures & assembly points • Staff fire training • Duties of persons nominated in the plan • Arrangements for testing and updating the plan Indirect D.Reg 4				
6.1.3.8	JSP 317 Reg.4 (indirect)	Fire Safety Notices & Fire Action Notices must be displayed in order to comply with the Health and Safety (Safety Signs and Signals) Regulations 1996. Locations and quantities should relate to the local risks and be the result of a risk assessment. Indirect D.Reg 4 				

6.1.3.9	JSP 317 Reg.1 (indirect)	Smoking or Smoking materials are not permitted in the hazardous area. Personnel are to deposit any smoking materials in a safe designated contraband area before entering a hazardous zone or likely hazardous area. Indirect D.Reg 1				
6.1.3.10	JSP 317 Reg.10 (indirect)	Combustible material such as vegetation, litter or rubbish should not be allowed to accumulate in the bund as this will increase the risk of fire. Indirect D.Reg 10				
6.1.3.11	2.5.17 Reg.9 (indirect)	Grass and Vegetation is to be cut back to a minimum of 15m. Isolated deciduous trees are permitted but conifers must be removed. Grass cutting and removal of vegetation must be carried out in accordance with the MoD Safety Rules and Procedures for Work on Petroleum installations. Indirect D.Reg 9				

6.1.4 Environmental Protection		GRADING				
		G	R	N/A	Remarks	
Ref						
6.1.4.1	JSP 317 Reg.4 (indirect)	Spillages to be mopped up immediately using approved absorbent material which must be removed from the area for safe disposal after use. Indirect D.Reg 4				
6.1.4.2	JSP 317 Reg.4 (indirect)	A Pollution Control Point (PCP) is to be established at the installation. The PCP must be clearly identifiable, stocked appropriately and be maintained on a regular basis. Indirect D.Reg 4				
6.1.4.3	JSP 317 Reg.4 (indirect)	The unit must hold and maintain a local Spillage Register. All spillages are to be recorded and the forwarded to the Pollution Control Officer (PCO), who will collate the establishments, combined spill data. Indirect D.Reg 4				
6.1.4.4	JSP 317 Reg.4 (indirect)	Spillage Immediate Action Posters are to be prominently displayed at all Pollution Control Points and locations where F&L is stored. Indirect D.Reg 4				

6.1.5 Operating Procedures

Note: Operating procedures will be assessed on both documentary evidence and a set of verbal responses to the auditor.

6.1.5.1 AVIATION RECEIPT PROCEDURES		GRADING				
		G	R	N/A	Remarks	
Ref						
6.1.5.1.1	JSP 317 Reg.10 (indirect)	Aviation Fuel. All materials in contact with aviation fuel are to be MOD approved by both the relevant Fuels Quality Assurance section and the Engineering Authority to ensure that the fuel does not react with the material and vice versa. Indirect D.Reg 10				
6.1.5.1.2	JSP 317 Reg.10 (indirect)	What grades of fuel are receipted into the installation and by what method? If F35 is receipted and blended on site answer the relevant blending questions. View the receipt point noting the general condition and cleanliness of the area, the correct fitment of blanking caps and the location of spill and fire equipment. *Enter details of Type of fuel received (F18, F34, F35 or F44) and how the fuel is received (Pipeline or Tanker) into the Comments Box. Indirect D.Reg 10				

6.1.5.1 .3	JSP 317 Reg.10 (indirect)	<p>Before any product is transferred into storage the following actions must be taken</p> <p>All storage tanks to be used must be suitable for the product and if empty, certified clean. If they contain product it must be of the same grade, free from contamination and within specification and retest date</p> <p>All filters, connections and associated pipe work must be checked to ensure cleanliness, correct connection and operation. All hatches are to be secured to avoid the ingress of water and other contaminants.</p> <p>There is sufficient ullage within the storage tank to accept the delivered volume.</p> <p>Indirect D.Reg 10</p>				
6.1.5.1 .4	JSP 317 Reg.10 (indirect)	<p>When new deliveries of fuel are receipted into storage, the bulk tank contents shall be allowed to settle for a minimum of 2 hrs before any fuel is issued, providing the fuel is filtered into storage. If fuel is filtered into and out of storage i.e a BFCV and Installations filtration systems; in this instance no settling period is required.</p> <p>Indirect D.Reg 10</p>				
6.1.5.1 .5	JSP 317 Reg.10 (indirect)	<p>A sample must be taken at time of receipt.</p> <p>Indirect D.Reg 10</p>				
6.1.5.1 .6	JSP 317 Reg.10 (indirect)	<p>Ascertain which tests are being conducted. As a minimum these should be:</p> <p>Appearance Density Conductivity (Not F-44) FSII (Not F-35) Test for free water</p> <p>Results for these tests should be compared to those of the release certificate of the fuel being delivered.</p> <p>Are records being kept of test data? If so where are these held and how are they logged?</p> <p>Indirect D.Reg 10</p>				
6.1.5.1 .7	JSP 317 Reg.10 (indirect)	<p>What equipment is held to accomplish the testing conducted at 4.3.6.5?</p> <p>As a minimum these should be;</p> <p>5 Litre Glass Sample Jar NSN 6630-99-224-1105 and Carrier A suitable Hydrometer for the product being delivered, test jar and thermometer (Check calibration status of the hydrometer and thermometer) OR a handheld densitometer (Check calibration of the densitometer) Conductivity Meter (Check calibration) For receipts of F-34 and F-44 then a FSII refractometer kit is required In date Shell Water Detection Capsules</p> <p>Can the operator demonstrate how to use the equipment?</p> <p>Is the equipment stored in good order, i.e. clean/tidy order, thermometers in an upright position etc?</p> <p>Indirect D.Reg 10</p>				
6.1.5.1 .8	SOP* Reg.10 (indirect)	<p>If F-35 is receipted, is it to be delivered to aircraft as F-35 or is blending required to convert it to F-34? If F-35 is to be blended when and where does this occur (State in remarks column):</p> <p>Between receipt point and storage Between storage and intermediate storage Directly into the refuelling vehicle Directly into the aircraft.</p> <p>Indirect D.Reg 10</p>				
6.1.5.1 .9	SOP* Reg.9 (indirect)	<p>Has the blending apparatus been calibrated?</p> <p>Indirect D.Reg 9</p>				

6.1.5.1 .10	JSP 317 Reg.7 (indirect)	Has the installation operator received sufficient training to enable him to use the blending apparatus and is there a mechanism for checking that the correct level of additives is being blended? Indirect D.Reg 7				
6.1.5.1 .11	JSP 317 Reg.3 (indirect)	Is the blending additive stored in a suitable location and segregated from other products? Indirect D.Reg 3				

6.1.5.2 AVIATION STORAGE PROCEDURES			GRADING			
			G	R	N/A	Remarks
Ref						
6.1.5.2 .1	JSP 317 Reg.8 (indirect)	The storage media should be appropriate for the product being stored and be in a satisfactory condition. This includes the condition of the tank, appropriate marking of the tank. All blanking caps are to be in place when not in use. Indirect D.Reg 8				
6.1.5.2 .2	JSP 317 Reg.9 (indirect)	What equipment is held to accomplish the testing of bulk stock? As a minimum these should be; Any Level Bottom Sampler (ALBTMS) 5 Litre Glass Sample Jar NSN 6630-99-224-1105 and Carrier A suitable Hydrometer for the product, test jar and thermometer (Check calibration status of the hydrometer and thermometer) OR a handheld densitometer (Check calibration of the densitometer) Conductivity Meter (Check calibration) For receipts of F-34 and F-44 then a FSII refractometer kit is required In date Shell Water Detection Capsules Ask the operator to demonstrate/talk through how to use the equipment Is the equipment stored in good order, i.e. clean/tidy order, thermometers in an upright position etc? Indirect D.Reg 9				
6.1.5.2 .3	JSP 317 Reg.10 (indirect)	Control boards are to be maintained in F&L Sections to ensure that information regarding the state of each bulk aviation fuel storage tank is readily available. The following information as a minimum should be recorded: Tank number. Grade of fuel. Tank capacity. Stock. Ullage. Tanks into which bulk receipts are to be accepted. Tanks from which issues are to be made. Date of next tank clean. Date of last update. Density of fuel @ 15°C (density reading taken from BFI after a receipt). Indirect D.Reg 10				

6.1.5.2 .4	DLF Reg.10 (indirect)	<p>Frequency of Dips</p> <p>Daily. All In-use bulk fuel storage tanks and Bulk Fuel Carrying Vehicles (BFCV) are to be dipped daily. This can be carried out by ATG (if accurate to +/- 1mm and +/- 0.5oC) or manually and, whenever possible before issues of the day.</p> <p>Weekly. The dip, water check and temperature measurement (temperature is not required for BFCVs) of all bulk storage tanks and BFCVs, including those where no fuel movement has taken place, is to be carried out once a week under the supervision of an authorised officer, normally Fridays.</p> <p>Last Working Day of the Month. Dips are to be carried out on the last working day of the month under the supervision of an authorised officer (OC Supply at RAF Units).</p> <p>Indirect D.Reg 10</p>				
6.1.5.2 .5	JSP 317 Reg.10 (indirect)	<p>Are frequent water drains being conducted? What is the frequency of tank dips and are records maintained. Water drains shall be recorded (date and volume collected) When conducted has anything unusual been noted e.g. a smell of rotten eggs is indicative of Micro Biological Contamination , large volumes of water would indicate more frequent drains required</p> <p>Records shall be kept of all dips that should be conducted weekly and after all deliveries.</p> <p>Indirect D.Reg 10</p>				
6.1.5.2 .6	JSP 317 Reg.10 (indirect)	<p>Elimination of Water from Storage Tanks 1/4.</p> <p>The presence of water in storage tanks can give rise to microbiological contamination, and the leaching out of additives. Every effort is to be made to eliminate water in storage tanks. To ensure that water in fuel tanks is kept to a minimum, the following procedures are to be applied:</p> <p>a. Tanks fitted with automatic water detection and an integrated water removal systems, or automatic tank gauges (ATG), compliant with STANAG 7011, are to be checked for water once a month.</p> <p>Indirect D.Reg 10</p>				
6.1.5.2 .7	JSP 317 Reg.10 (indirect)	<p>Elimination of Water from Storage Tanks 2/4.</p> <p>b. Tanks fitted with an ATG, compliant with STANAG 7011, are to be checked for water once a week. Where the tank has not issued or received fuel during the previous week, or where local conditions preclude weekly water checks from being conducted, the frequency of checks may be extended to a period not exceeding one month.</p> <p>Indirect D.Reg 10</p>				
6.1.5.2 .8	JSP 317 Reg.10 (indirect)	<p>Elimination of Water from Storage Tanks 3/4.</p> <p>c. Tanks which are not fitted with an ATG are to be checked for water whenever the tank contents are dipped. If water is detected in a tank that is not fitted with an automatic water detection system which incorporates an integrated water removal system, a works service request is to be raised for its immediate removal. The results of all water checks are to be recorded and stock adjustments made in accordance with JSP 886.</p> <p>Indirect D.Reg 10</p>				
6.1.5.2 .9	JSP 317 Reg.10 (indirect)	<p>Elimination of Water from Storage Tanks 4/4.</p> <p>d. Filter Water Separators (FWS), fuel monitors and low points in the pipework, where fitted with drain points and used for the issue of fuel in the preceding 24 hrs, are to be checked for water prior to use. Any water found is to be drained off prior to use.</p> <p>Indirect D.Reg 10</p>				

6.1.5.3 AVIATION FILTRATION PROCEDURES		GRADING			
		G	R	N/A	Remarks
Ref					
6.1.5.3 .1	JSP 317 Reg.9 (indirect)	<p>Only (FWS) shall be in use, particularly where the fuel is F-34/F-44. If fuel filter Monitor vessel is installed in a system that handles fuels containing FSII, they should be appropriately marked to identify that NO elements are installed. Fuel monitors may be in use. In such cases they shall ONLY be used for filtering F-35. Every precaution SHALL be taken to ensure segregation from fuels that contain ANY FSII</p> <ul style="list-style-type: none"> •Check external appearance of vessel. Ensure Data Plate is in place recording information on its design and max rated flow. •Are elements installed all: <ul style="list-style-type: none"> From the same manufacturer, of the same type, in date (3 year max life from date of installation),The total rated flow of elements is greater than the rated flow of vessel •PD gauge is calibrated and functioning. Certificate available & gauge clearly identified. •Is (PD) recorded for the vessel when in use (Max PD 15 psi)max PD recorded weekly, max PD recorded at or adjusted to max rated flow. <p>Indirect D.Reg 9</p>			
6.1.5.3 .2	JSP 317 Reg.10 (indirect)	<p>Maintain accurate monitoring of differential pressure across the filters as this is the only guide to their condition. If the pressure rises beyond the acceptable limits (15 psi) the cartridges are to be replaced.</p> <p>*Note: PD reduction ratio taken from the manufacturers accompanying literature.</p> <p>Indirect D.Reg 10</p>			
6.1.5.3 .3	JSP 317 Reg.10 (indirect)	<p>Note: Coalescer elements should be replaced when the PD reaches 15 psi at their maximum rated flow. If however, the vessel is operated at a lower flow rate, the maximum PD of 15 psi will be reduced.*</p> <p>Are water drains (of the FWS sump) being conducted and recorded? When conducted has anything unusual been noted e.g. a smell of rotten eggs is indicative of Micro Biological Contamination? If the system permits direct delivery to aircraft without passing through a further FWS, has a valid Millipore test been conducted within the last three months that provided a satisfactory result.</p> <p>Indirect D.Reg 10</p>			

6.1.5.4 AVIATION BULK ISSUES		GRADING			
		G	R	N/A	Remarks
Ref					
6.1.5.4 .1	JSP 317 Reg.10 (indirect)	<p>Turnover of Stocks</p> <p>Stocks are always to be issued on the principle of using oldest stock first. The age of stock is to be assessed by the length of time it has been in storage in the installation. Where an installation has two or more tanks, the tanks are to be filled and emptied in rotation.</p> <p>Indirect D.Reg 10</p>			
6.1.5.4 .2	JSP 317 Reg.10 (indirect)	<p>Before issue all hoses and couplings are to be visually checked for signs of general deterioration. It is essential that the coupling is kept scrupulously clean and the protective cap kept in position when not in use. When in use hoses and couplings are to be inspected periodically, as outlined below. The inspections are to be conducted on at least a quarterly basis, although more frequent checks may be required depending on local conditions. Standing Operating Procedures are to outline the frequency and method of recording such checks.</p> <p>Indirect D.Reg 10</p>			

7. Joint Operational Fuels System (JOFS)

STORAGE TANKS

Tank No.	Serial No.	Date		Capacity (m ³)	Product	IER Dates		Remarks
		Manufactured	Into Service			Last Insp	Next due	

PUMPS

Pump No.	Serial No.	Model/Type/Rate	Date		Product	IER date		Remarks
			Manufactured	Into Service		Last Insp	Next due	

BUND LINERS

Bund Location	Serial No.	Date		Product	IER Dates		Remarks
		Manufactured	Into Service		Last Insp	Next due	

7.1 TACTICAL FUEL HANDLING EQUIPMENT (TFHE) / JOFS

Note: All Deployed BFI (DBFIs) regardless of size are to meet the requirements of this section. The definition of a DBFI is referenced to Military Engineering Vol XII. Where the rapid nature of deployment and recovery during Ops within a Military works area preclude full planning cycle, it may not be pertinent to consider all stated aspects herein, but for all instances of training and operations, all aspects of the Fuel Gas Safety Assurance Assessment (FGSAA; in respect of DBFI's) should be considered.

Note: Units deploying JOFS/TFHE are to self-assess using the FGSAA. One copy is to be held at unit level (up to 3 yrs) and a second copy shall be provided to their relevant Fuels RO or Cmd. SOPs and TOPs may not be referenced and as a result these observations will not be regulated by FGSR. In this instance the reference column will state 'SOP' or 'TOP'.

7.1.1 Design, Siting and Commissioning				GRADING			
Ref				G	R	N/A	Remarks

7.1.1.1	JSP 317 Reg.8 (direct)	<p>Siting Board / Recce Report:</p> <p>Siting boards should take place when possible. Where this is not possible, a Formal Recce Report is to be produced in its place.</p> <p>Is there sufficient evidence of the completion of a Siting Board or Recce?</p> <p>Direct Regulation Non-compliance (D.Reg 8)</p>				
7.1.1.2	JSP 317 Reg.8 (direct)	<p>Significant siting risks:</p> <p>Were there any significant risks which have been accepted during installation siting? These may include (but are not limited to) the following:</p> <ul style="list-style-type: none"> • Confined spaces / dispersion of vapours • The release of contaminated water etc (bund water etc is to be treated as contaminated waste) paying particular attention to supply and delivery points • DSEAR Haz areas observed and sources of ignition controlled • Vehicular access from MSR's • Dispersion of stocks • Separation and safety distances from other areas such as: <ul style="list-style-type: none"> o Ammunition >50 m (ATO to advise) o Antenna Farms - Advice from Technical Authority o Accommodation & sleeping areas >45m (Fire Advisor (FA) to advise) o Occupied buildings and possible sources of ignition - Advice from FA: <ul style="list-style-type: none"> o Class I & II products min >15m o Class III product min >10m o Flight-paths - Advice from SATCO <p>Direct Regulation Non-compliance (D.Reg 8)</p>				
7.1.1.3	AESP JSP 317 Reg.8 (direct)	<p>Site Design:</p> <p>The installation has been designed, constructed and approved iaw the requirements of JSP 317, AESP and / or MDA drawings.</p> <p>Direct Regulation Non-compliance (D.Reg 8)</p>				
7.1.1.4	JSP 317 Reg.8 (indirect)	<p>Standard or non-standard design:</p> <p>Has the installation been adapted in any way from a standard AESP design?</p> <p>Have changes been approved by MDA and have new diagrams been produced (installation diagram, OXO and DSEAR)?</p> <p>*Provide details in remarks.</p> <p>Indirect D.Reg 8</p>				
7.1.1.5	JSP 317 Reg.8 (direct)	<p>Permanent infrastructure enhancement and substitution:</p> <p>Is the installation attached to permanent infrastructure?</p> <p>If yes:</p> <ul style="list-style-type: none"> • Have emergency plans and RAs been updated to include JOFS enhancements? • Has a point of demarcation been formally agreed? <p>Provide details.</p> <p>Direct Regulation Non-compliance (D.Reg 8)</p>				

7.1.1.6	AESP Reg.8 (indirect)	<p>Additional Modules:</p> <p>Have any of the following standard modules been added to the installation?</p> <ul style="list-style-type: none"> • Primary Bulk Fuel Installation • Enhanced Storage Module • Air Refuel Module • Towed Flexible Barge Deployment System (TFBDS) • Small Container And Convoy Refuelling System (SCCRS) • Tactical Refuelling Area • Air Portable Fuel Container • Pipeline Set Special 6 Inch • Standard Overhead Crossing 6 Inch • Stone And Sand Trap Assembly • Hose line Set, Layflat, 6 In. (150 Mm), 1 Mile (1.6 Km) And 5 Mile (8 Km) • Ship To Shore Pipeline System (SSPS) • Light Forces System • Heavy Duty Pump System • Medium Duty Pump System • Medium Duty Filter Water Separator • Bund Water Treatment System • Bulk Fuel Carrying Vehicle Offloading • Bulk Fuel Carrying Vehicle Loading <p>Provide details in remarks.</p> <p>Indirect D.Reg 8</p>				
7.1.1.7	JSP 317 DBFI AESP Reg.4 (direct)	<p>Bund construction:</p> <p>Bunds should have been constructed in accordance with the DBFI AESP. A Certificate of Conformity should have been provided by the RE Military Plant Foreman on completion of ground works to confirm AESP compliance. Is this available?</p> <p>If a Certificate of Conformity is not available, the below conditions should be demonstrated:</p> <ul style="list-style-type: none"> • Bunds shall be constructed of non-flammable material. • Bund floor free of sharp objects. • Max slope of 1:60 towards the dispensing end. • Bund floor provided with sump. • Bund wall to be continuous and capable of containing 110% of the largest tank they contain. • No more than 2 x 136m³ or 4 x 75 m³ TFC's per bund. • Where possible bunds are to be separated from one another. <p>FGSR Note</p> <p>Direct Regulation Non-compliance (D.Reg 4)</p>				
7.1.1.8	JSP 317 Reg.9 (direct)	<p>For complex non-standard installations only - testing and commissioning:</p> <p>Has Pneumatic Leak Testing been completed and recorded?</p> <p>Direct Regulation Non-compliance (D.Reg 9)</p>				
7.1.1.9	JSP 317 Reg.9 (direct)	<p>For complex non-standard installations only - testing and commissioning:</p> <p>Has Hydraulic Leak Testing been completed?</p> <p>Direct Regulation Non-compliance (D.Reg 9)</p>				

7.1.2 Installation Documentation				GRADING			
				G	R	N/A	Remarks
Ref							

7.1.2.1	JSP 317 Reg.6 (direct)	RE MDA – OA handover certificate: Following construction, the Operating Authority should receive a formal handover from RE MDA. A completed handover certificate should be available at the installation. Direct Regulation Non-compliance (D.Reg 6)				
7.1.2.2	JSP 317 Reg.9 (direct)	Military Design Authority Technical Inspection: Has a 6-monthly Enduring Bulk Fuels Infrastructure (EBFI) Site Inspection Report been completed by 516 STRE finding the installation safe for continued use? FGSR Note: *Include date of inspection in comments. Direct Regulation Non-compliance (D.Reg 9)				
7.1.2.3	JSP 317 Reg.9 (indirect)	EBFI Site Inspection Report Action Plan (if applicable): Has an Action Plan has been produced to rectify the specific observations detailed in the 516 STRE Site Inspection Report? Indirect D.Reg 9				
7.1.2.4	JSP 317 Reg.9 (direct)	Earth Testing and Electrical Continuity: Has testing been completed and recorded (to include resistance)? Does the installation have an in-date DBFI Earthing System Completion and Inspection Certificate? Direct Regulation Non-compliance (D.Reg 9)				
7.1.2.5	JSP 317 Reg.9 (indirect)	Meter Calibration: Do all bulk meters have an in-date meter calibration certificate? Indirect D.Reg 9				
7.1.2.6	JSP 317 Reg.10 (direct)	Site diagrams and valve setting (OXO) charts: Are accurate installation diagrams and OXO charts available at the site? Direct Regulation Non-compliance (D.Reg 10)				
7.1.2.7	JSP 317 Reg.9 (direct)	Plant records: Are plant documents and tank record books available? Is evidence of Inspectorate of Engineer Resources (IER) recorded? Insert location of records in comments. Direct Regulation Non-compliance (D.Reg 9)				

7.1.3 Operation and Maintenance		GRADING			
		G	R	N/A	Remarks
Ref					

7.1.3.1	JSP 317 Reg.8 (direct)	<p>Traffic Circuits:</p> <p>Circuits must be adequate to allow the passage of delivery/receipt vehicles, as well as allowing for unhindered passage of fire fighting vehicles.</p> <p>Routes are to avoid temporary DSEAR Haz Areas applicable during receipting and issuing fuel.</p> <p>Access and egress to the site must be controlled and where necessary, physical protection measures may be required to protect exposed pipework/equipment from vehicle damage.</p> <p>Direct Regulation Non-compliance (D.Reg 8)</p>				
7.1.3.2	JSP 317 Reg.5 (indirect)	<p>Camouflage, Concealment and Deception (CCD):</p> <p>If camouflage nets are used they must be a minimum of 1m above bund walls to allow for dispersion of vapour.</p> <p>Indirect D.Reg 5</p>				
7.1.3.3	JSP 317 Reg.10 (indirect)	<p>Quality Assurance:</p> <p>Are quality assurance checks being carried out in line with requirements in JSP 317 Pt 2 Vol 3 Annex B?</p> <p>Indirect D.Reg 10</p>				
7.1.3.4	JSP 317 Reg.10 (indirect)	<p>Testing equipment:</p> <p>Is appropriate testing equipment available at the installation for the products held?</p> <p>Indirect D.Reg 10</p>				

7.1.4 Fire, Health & Safety and Welfare			GRADING			
			G	R	N/A	Remarks
Ref						
7.1.4.1	JSP 426 JSP 317 Reg.4 (direct)	<p>Comprehensive Fireplan:</p> <p>Has a suitable installation specific fire plan been produced and displayed?</p> <p>Direct Regulation Non-compliance (D.Reg 4)</p>				
7.1.4.2	JSP 317 Reg.10 (direct)	<p>Safe System of Work (SSoW) & Permit to Work (PtW) system:</p> <p>Is a PtW in place and enforced by an AP Pet for completion of intrusive works?</p> <p>It is the OA responsibility that all maintenance is carried out under SSoW. Any requirement to break in to the system on a maintenance task will require a Permit to Work (PtW) Pet (i.e. change or clean of strainer, FWS elements coupling or hose change) unless a dry-break system is in place, which under normal working conditions eliminates potential exposure to fuel.</p> <p>Direct Regulation Non-compliance (D.Reg 10)</p>				
7.1.4.3	JSP 317 Reg.1 (indirect)	<p>Injury / illness prevention and first aid:</p> <p>The following are to be provided for personnel at the place of work:</p> <ul style="list-style-type: none"> • Washing and changing facilities • Barrier Cream and After Work Cream. • Eyewash (In Date). • Complete Emergency First Aid Kit <p>Indirect D.Reg 1</p>				

7.1.4.4	JSP 317 Reg.1 (indirect)	<p>Personal Protective Equipment (PPE) and Respiratory Protective Equipment (RPE):</p> <p>Is appropriate PPE and RPE provided and used by all operators?</p> <p>Are regular PPE checks carried out?</p> <p>Indirect D.Reg 1</p>				
7.1.4.5	JSP 317 Reg.10 (direct)	<p>Contraband control:</p> <p>Is there a procedure for checking for contraband before entering the site? Is there a suitable, safe location for contraband to be secured for the duration of the visit?</p> <p>Items which may provide a source of ignition in a DSEAR Hazardous area should not be taken onto the fuel site. This may include (but is not limited to):</p> <ul style="list-style-type: none"> • Lighters • E-cigarettes • Smart watches • Mobile phones tablets and radio equipment • Weapons and pyrotechnics • Non-ATEX portable devices <p>Direct Regulation Non-compliance (D.Reg 10)</p>				
7.1.4.6	JSP 317 Reg.1 (indirect)	<p>Smoking:</p> <p>Smoking or Smoking materials are not permitted in the hazardous area. Has a safe location been allocated for smoking?</p> <p>Indirect D.Reg 1</p>				
7.1.4.7	JSP 317 Reg.4 (direct)	<p>Fire Fighting Equipment:</p> <p>Following consultation with the Defence Fire Service (DFS), landowners and the local fire brigade (if applicable) has the appropriate scale of firefighting equipment been provided at the facility and is it positioned to afford the maximum protection for the entire installation?</p> <p>Direct Regulation Non-compliance (D.Reg 4)</p>				
7.1.4.8	JSP 317 Reg.1 (indirect)	<p>Hazard Warning Signs:</p> <p>The following Hazard Warning Sign must be displayed on all approaches to the facility in local language and English:</p> <p>'Petroleum Spirit, Highly Flammable, No Smoking, No Naked Lights'.</p> <p>Indirect D.Reg 1</p> 				
7.1.4.9	JSP 317 Reg.5 (indirect)	<p>Are 'Ex' warning signs displayed at all sites boundaries?</p> <p>Indirect D.Reg 5</p> 				
7.1.4.10	JSP 317 Reg.8 (indirect)	<p>Welfare facilities:</p> <p>Have heated shelter, washing facilities, changing and eating areas have been provided for operators?</p> <p>Indirect D.Reg 8</p>				

7.1.5 Environmental Protection			GRADING			
			G	R	N/A	Remarks
Ref						
7.1.5.1	JSP 317 Reg.4 (indirect)	<p>Actions in event of spillage:</p> <p>Spillages are to be mopped up immediately using approved absorbent material which must be removed from the area for safe disposal after use.</p> <p>Indirect D.Reg 4</p>				
7.1.5.2	JSP 317 Reg.4 (indirect)	<p>Pollution Control Sorbents:</p> <p>Are sufficient Pollution Control Points (PCP) established at the installation? The PCPs must be clearly identifiable, stocked appropriately and be maintained on a regular basis.</p> <p>Indirect D.Reg 4</p>				
7.1.5.3	JSP 317 Reg.4 (indirect)	<p>Bundling and containment:</p> <p>Are bunds or drip trays in use for all pumps, manifolds, FWS and sand and stone traps?</p> <p>Indirect D.Reg 4</p>				
7.1.5.4	JSP 317 Reg.10 (direct)	<p>Bund water removal:</p> <p>Are suitable procedures in place for bund water removal, treatment and disposal?</p> <p>Electrical extraction and treatment equipment must be correctly ATEX rated to correspond to the Explosive Hazard which may be presented by the products held, taking into account climatic variables.</p> <p>Direct Regulation Non-compliance (D.Reg 10)</p>				

7.1.6 Standard Operating Procedures			GRADING			
			G	R	N/A	Remarks
Ref						
7.1.6.1	SOP Reg.8 (indirect)	<p>Master Check List:</p> <p>Have all documents and plans been completed in accordance with the Master Check List?</p> <p>Indirect D.Reg 8</p>				
7.1.6.2	SOP Reg.10 (indirect)	<p>Asset Management:</p> <p>Issue vouchers should be issued for stores and lists should be available for all equipment on site.</p> <p>All equipment held should be issued on JAMES to the current user unit.</p> <p>Indirect D.Reg 10</p>				
7.1.6.3	SOP Reg.10 (indirect)	<p>Equipment Accounting:</p> <p>Issue vouchers for stores and lists for all equipment on site</p> <p>A Complete Equipment Schedule should be held for JOFS installations and procedures should be in place for tracking the issue of spares and the back loading of damaged equipment.</p> <p>Indirect D.Reg 10</p>				

7.1.6.4	SOP Reg.4 (direct)	<p>Fire Practice:</p> <p>Fire equipment must be placed and a full practice conducted and recorded prior to commissioning the installation with flammable liquids.</p> <p>Direct Regulation Non-compliance (D.Reg 4)</p>				
7.1.6.5	SOP Reg.4 (direct)	<p>USRP practice:</p> <p>Rehearsal of the USRP must have been conducted and recorded prior to in-load of product and as part of mandatory training on changeover of staff.</p> <p>Direct Regulation Non-compliance (D.Reg 4)</p>				
7.1.6.6	SOP Reg.1 (indirect)	<p>Unauthorised personnel:</p> <p>Where personnel require access but are not in possession of a COC for the installation, are arrangements in place to provide adequate and constant supervision?</p> <p>Indirect D.Reg 1</p>				
7.1.6.7	SOP Reg.7 (direct)	<p>Training and competence:</p> <p>Have all installation operators received sufficient training to complete operations and procedures on the installation?</p> <p>Are in-date Certificates of Competence held for all operators, signed by a "competent person"?</p> <p>FGSR Note:</p> <p>Competent Person is defined as a person who has completed the F&L Managers' Course appropriate to the product held, and is familiar with the installation.</p> <p>Direct Regulation Non-compliance (D.Reg 7)</p>				
7.1.6.8	SOP Reg.10 (direct)	<p>Safety briefing:</p> <p>All visitors including drivers should receive a safety brief before entering the site. Evidence of receiving the safety brief must be recorded.</p> <p>Direct Regulation Non-compliance (D.Reg 10)</p>				
7.1.6.10	SOP Reg.8 (indirect)	<p>Drain-off points:</p> <p>Have drain valves been positioned at low points to permit commissioning, decommissioning and repair of the installation?</p> <p>Indirect D.Reg 8</p>				
7.1.6.11	SOP Reg.4 (direct)	<p>Emergency capacity:</p> <p>Is adequate ullage maintained to accept emergency transfer from tanks containing products of the same grade?</p> <p>Direct Regulation Non-compliance (D.Reg 4)</p>				
7.1.6.12	SOP Reg.10 (indirect)	<p>Maximum working capacity of tanks:</p> <p>Tanks not to be filled above 100% of their max working capacity?</p> <p>Indirect D.Reg 10</p>				
7.1.6.13	SOP Reg.10 (indirect)	<p>Water removal:</p> <p>Are storage tank water drain-offs routinely completed to prevent contamination and microbial growth?</p> <p>Indirect D.Reg 10</p>				

7.1.6.1 4	SOP Reg.10 (indirect)	<p>Daily checks:</p> <p>Are daily visual inspections of all TFC and pipelines carried out and recorded?</p> <p>Indirect D.Reg 10</p>				
7.1.6.1 5	SOP Reg.10 (indirect)	<p>Location of FWS:</p> <p>FWSs must be located as close to dispense points as possible in order to minimise the risk of contamination. Has this principle been adhered to?</p> <p>Indirect D.Reg 10</p>				
7.1.6.1 6	SOP Reg.4 (indirect)	<p>Concealment of BFCV's:</p> <p>The following guidance shall be followed when Camouflaging BFCVs not fitted with the Mobile Camouflage System:</p> <ul style="list-style-type: none"> • Hessian or any other combustible materials shall not to be used. • Camouflage netting and Urban Cam of any type is not to be draped directly onto any part of the vehicle. • The hide should be constructed as to allow the BFCV to be driven in and out without fouling the camouflage netting. • The Camouflage net should be high enough to allow the driver/operator to dip the tank without difficulty. • Camouflage nets must be fire-retardant. • Camouflage nets contaminated with fuels shall not be used. • Camouflage nets contaminated with fuels should be handled with care due to the risk of spontaneous combustion. <p>Indirect D.Reg 4</p>				

8. Bulk Fuel Carrying Vehicle (BFCV) Operational/Storage

8.1 BFCV STORAGE PARK						
Ref			Information only			
8.1.1		Outside of UK. In countries outside of the UK JSP 317 standards will apply unless the host nation regulations are more stringent. This does not apply to Germany where local standards in compliance with SOFA are to be adhered to.				
8.1 BFCV STORAGE PARK			GRADING			
			G	R	N/A	Remarks
<i>Required for 1st & 2nd Party Assurance Audit and 3rd Party Regulatory Audit for all sites</i>						
Ref						
8.1.2		Interceptor Capacity				
8.1.1 Operation & Function			GRADING			
			G	R	N/A	Remarks
Ref						
8.1.1.1	JSP 317 Reg.8 (indirect)	The hard standing is to be of sufficient size to accommodate all establishment BFCVs. In addition there must also be sufficient area for manoeuvring and an additional area dedicated for transiting or visiting unit BFCVs. Calculations for determining the area should be 2.25 x the floor plan area of each vehicle e.g 9 Tonne MM Unit Support Tanker (UST): 2.55m x 9.16m x 2.25 = 52.56 m ² . Indirect D.Reg 8				
8.1.1.2	JSP 317 Reg.8 (indirect)	The hard standing surface must be constructed of concrete or another material that is impervious to hydrocarbons. Indirect D.Reg 8				
8.1.1.3	JSP 317 Reg.8 (direct)	In all instances there is to be a safety distance around the hard standing, extending outwards 10m in all directions. No facilities, vehicle parking areas or buildings, including control rooms, are permitted within this safety distance. Direct D.Reg 8				High Hazard
8.1.1.4	FGSR Note: Reg.8 (indirect)	A 45m Safety distance applies to living accommodation & public highways. The Siting Board can give dispensation to reduce the distance from a public highway to a min of 10m, however the distance from living accommodation must not be reduced. Indirect D.Reg 8				
8.1.1.5	FGSR Note: Reg.8 (direct)	Drainage The ground must be sloped towards catchment drain/drains. Direct D.Reg 8				High Hazard
8.1.1.6	JSP 317 Reg.8 (direct)	If the interceptor capacity is less than the largest, single, vehicle compartment, answer the following (Mitigation) question below. Direct D.Reg 8				High Hazard

8.1.1.7	JSP 317 Reg.2 (direct)	<p>OWI Mitigation Pollution ERA: If the Interceptor has been identified as below the required capacity, has a suitable Pollution ERA been carried out, recorded, and is it annually reviewed to mitigate the increased risk?</p> <p>If the Pollution ERA mitigates the insufficient capacity by demonstrating a work around solution, subsequent assessments can be assessed as Green</p> <p>FGSR Note If the above question (Interceptor capacity is less than the largest, single, vehicle) graded as Green - This question is N/A</p> <p>Direct Regulation Non-compliance (D.Reg 2)</p>				High Hazard
8.1.1.8	JSP 317 Reg.9 (direct)	<p>OWI Maintenance: OWIs are assets which are maintained under Project Aquatrine by the service providers. As a minimum, every 6 months or iaw manufacturers' instructions OWIs should be inspected to confirm:</p> <p>Integrity of OWI. Quantity of accumulated F&L and silt. Correct operation of electrical equipment (alarms) Condition of coalescing devices – replace as necessary.</p> <p>The last inspection of the Interceptor was conducted by ___*___ on ___*___. If this date exceeds 6 months or the date of the last inspection cannot be ascertained award a 'Red' grade.</p> <p>*Details to be entered in the Comments Box</p> <p>FGSR Note Direct Regulation Non-compliance (D.Reg 9)</p>				High Hazard
8.1.1.9	JSP 317 JSP 375 Reg.8 (indirect)	<p>Illumination. Overhead lighting is to be a minimum 20 Lux iaw JSP 315.</p> <p>Indirect D.Reg 8</p>				
8.1.1.10	JSP 317 Reg.8 (indirect)	<p>The BFCV Park is to be surrounded and secured by a 1.8m High chain link fence. The perimeter fence should be positioned no less than 10m from the edge of the BFCV hard standing if it forms part of the camp perimeter and no less than 2m if not.</p> <p>Indirect D.Reg 8</p>				
8.1.1.11	JSP 317 Reg.8 (indirect)	<p>Entrance/exit gates must open outwards and must not be self-locking. Securing mechanisms must be operable utilizing a single action device, without resorting to the use of a key. Gates must be capable of being bolted or held open.</p> <p>Indirect D.Reg 8</p>				
8.1.1.12	JSP 317 Reg.4 (indirect)	<p>Emergency shower. The removal or changing of clothing inside the Hazardous Areas is prohibited. In order to enable contaminated clothing to be quickly and safely removed avoiding ignition from static electricity, a deluge shower is to be installed. Showers are to be sited at the entrance of the park, however where this is not possible, alternative arrangements are to be made in conjunction with the production of a risk assessment.</p> <p>Indirect D.Reg 4</p>				

8.1.1.1 3	JSP 317 Reg.8 (indirect)	<p>Traffic Flow. Under normal circumstances a one-way traffic system incorporating an exit and access gate is to be approved, based upon a risk assessment and the number of BFCVs operated. Where this requirement is deemed unnecessary it may still be necessary to impose restrictions on the outcome of a risk assessment such as:</p> <p>If the distance to travel to exit the park exceeds 24m a personnel emergency exit should to be included in the design.</p> <p>If only one exit is used the width of the park entrance and approach road may need to be increased to allow two-way traffic flow.</p> <p>Appropriate traffic flow indication markings to be incorporated within and around the park.</p> <p>Design must allow parked vehicles to be driven forward to the nearest/safest exit without the need to manoeuvre/reverse, in the event of an emergency.</p> <p>Indirect D.Reg 8</p>				
8.1.1.1 4	JSP 317 Reg.8 (indirect)	<p>Earthing/Bonding. Bulk Transfer areas are to be equipped with fixed earth points. Fixed earth points are not required outside of this area. BFCVs stored/parked in the facility are to utilise fitted CES items.</p> <p>Indirect D.Reg 8</p>				
8.1.1.1 5	JSP 317 Reg.8 (indirect)	<p>Transfers must only to take place in a designated area of the BFCV Park. The transfer area is to be marked and a safety distance of 15m is to be established around the two BFCVs from any other vehicle.</p> <p>Indirect D.Reg 8</p>				
8.1.1.1 6	JSP 317 Reg.8 (indirect)	<p>Safety Distances BFCV Parking. Area provided in accordance with JSP 317- 2.25m for each vehicle, 1m between UBRE/UST & 2m between Support Tankers (all variants). 3m between groups of 9 UBRE & 5m between groups of 9 Support Tankers</p> <p>Indirect D.Reg 8</p>				

8.1.2 Fire Health & Safety			GRADING			
			G	R	N/A	Remarks
Ref						
8.1.2.1	JSP 317 Reg.4 (indirect)	<p>Communications. Does the unit have an effective means of both raising the alarm & giving warning in case of fire?</p> <p>Indirect D.Reg 4</p>				
8.1.2.2	JSP 317 Reg.1 (indirect)	<p>The following Hazard Warning Sign stating 'Petroleum Mixture, Highly Flammable, No Smoking/Naked flames, No mobile phones, No parking' is to be displayed on all approaches to the facility in the local language and English:</p> <p>Indirect D.Reg 1</p> 				
8.1.2.3	JSP 317 Reg.1 (indirect)	<p>Hazardous Area. The hazardous area extends to 10m beyond the physical boundaries of the BFCV Park. The following items/activities are not permitted within this distance:</p> <p>Smoking or naked flames. Studded footwear. Tracked vehicles. Mobile or portable phones unless ATEX certified. Consumption of food. The removal of contaminated clothing. Hearing Aids, unless they have been certified as intrinsically safe. If they are certified the user must be briefed not to change or expose the batteries in the hazardous area.</p> <p>Indirect D.Reg 1</p>				

8.1.2.1 3	JSP 317 Reg.1 (indirect)	Toilets, washing and changing facility. To be provided within 50m of BFCV Park entrance. Adequate supplies of pre-work barrier and after work cream to be provided at this facility. Indirect D.Reg 1				
8.1.2.1 4	JSP 317 Reg.1 (indirect)	Personal Protective Equipment (PPE). HoE is to ensure employees are informed, instructed and trained in the following areas: The risks PPE is designed to protect against and limitations. The correct use of PPE and its purpose. Actions required by personnel to avoid exposure to hazards. Indirect D.Reg 1				
8.1.2.1 5	JSP 317 Reg.1 (indirect)	PPE HoE is to provide employees with adequate PPE and must take all reasonable steps to ensure it is being used correctly and is inspected iaw the requirements JSP 375. Indirect D.Reg 1				
8.1.2.1 6	JSP 317 Reg.8 (indirect)	PPE HoE must provide suitable storage for the PPE to : Protect it from the hazard for which it was provided and any other hazard that may damage it or cause it to be hazardous. Ensure it is stored in a clean, hygienic location. Indirect D.Reg 8				
8.1.2.1 7	JSP 317 Reg.1 (indirect)	PPE Employees are responsible for ensuring that they: Make full and proper use of their PPE. Make sure it is stored in the designated area when not in use. Report any damaged PPE to their Chain of Command immediately. Indirect D.Reg 1				
8.1.2.1 8	JSP 317 Reg.4 (indirect)	Emergency Action Point (EAP). An EAP is to be established as close to the park entrance as possible, but at least 15m from the closest parked BFCV. The list is not exhaustive but as a minimum the EAP should include the following: Hazard Warning Signs. Pollution Control Point. Fire Extinguisher Notice Board, suitably weather proofed, displaying the following: Site specific Comprehensive Fire Plan. Pollution Control Plan. DSEAR RA. COSHH RAs & relevant Safety Data Sheets. Indirect D.Reg 4				
8.1.2.1 9	JSP 317 Reg.8 (indirect)	Instructions in Writing. When vehicles contain product within the storage tank or they are classed as nominally empty, Instructions in Writing must be displayed at all times. Where vehicles have been gas freed, Instructions in Writing must either be removed or placed in a securely closed container marked "Not relating to dangerous goods carried". Indirect D.Reg 8				
8.1.2.2 0	JSP 317 Reg.8 (indirect)	Instructions in Writing (cont). Where it is necessary to de-couple articulated BFCVs, the Instructions in Writing must be removed from the vehicle cab and be securely attached to the trailer unit in a weatherproof enclosure. Kemlar plates attached to the front of the trailer to assist emergency services. Indirect D.Reg 8				

8.1.3 Environmental Protection			GRADING			
			G	R	N/A	Remarks
Ref						
8.1.3.1	JSP 317 Reg.9 (indirect)	User units have a responsibility to ensure that the Aquatrine Service Provider (ASP) maintains, services and routinely inspects/cleans the facilities interceptor. The unit Site Estate Team Leader (SETL) is usually the Aquatrine Liaison Representative (ALR) and they should be contacted in the first instance if the unit feel the ASP are failing to fulfil this requirement. Indirect D.Reg 9				
8.1.3.2	JSP 317 Reg.2 (indirect)	Units are to contact their Regional Prime Contractor (RPC), DIO and the SETL if a significant spillage occurs at the facility or when they suspect that the interceptor is full and requires emptying. Indirect D.Reg 2				
8.1.3.3	JSP 317 Reg.4 (indirect)	Spillages to be mopped up immediately using approved absorbent material which must be removed from the area for safe disposal after use. Indirect D.Reg 4				
8.1.3.4	JSP 317 Reg.4 (direct)	A Pollution Control Plan is to be provided for the BFCV Park iaw JSP 317, A copy of the plan is to be included in the Unit Spillage Response Plan (USRP). FGSR Note Direct Regulation Non-compliance (D.Reg 4)				
8.1.3.5	JSP 317 Reg.4 (indirect)	Pollution Control Point (PCP). 1x PCP is to be provided for the first 8 x BFCVs and one additional PCP for the next 8 x BFCVs of parts thereof. Each PCP should be marker 'POLLUTION CONTROL POINT' and should contain the following: Contents, instruction leaflet and Pollution Control Plan. 100 Ltrs of loose absorbent. 20 Flat pads. 4 Oil seal/tube pads. 2 x Stiff brooms. 2 x Shovels. 2 x large drip trays. 6 x disposable polythene sacks and ties. Indirect D.Reg 4				
8.1.3.6	JSP 317 Reg.4 (indirect)	Spillage Immediate Action Posters are to be prominently displayed at all Pollution Control Points and locations were F&L is stored. Indirect D.Reg 4				

8.1.4 Operating Procedures			GRADING			
			G	R	N/A	Remarks
Ref						
8.1.4.1	JSP 317 Reg.8 (indirect)	Vegetation within the hazardous area is to be maintained and should not present a fire hazard. Isolated deciduous trees may be left in situ, providing overhanging foliage is cut back. Coniferous trees are not permitted within the hazardous area. Indirect D.Reg 8				
8.1.4.2	JSP 317 Reg.10 (indirect)	Housekeeping. Waste, contaminated pollution control sorbents and any other material used for cleaning purposes must be removed from the hazardous area immediately after use. Indirect D.Reg 10				

8.1.4.3	JSP 317 Reg.8 (indirect)	Skips/Bins. Skips, bins or other containers, used for the storage of contaminated materials, are not to be sited within the hazardous area. Indirect D.Reg 8				
8.1.4.4	JSP 317 Reg.8 (indirect)	Parking. Vehicles must be guided into parking bays and must not overhang the edge of the hard standing. Indirect D.Reg 8				

8.2 OPERATION OF AVIATION BULK FUEL CARRYING & HYDRANT REFUELLING VEHICLES			GRADING			
			G	R	N/A	Remarks
Ref						
8.2.1	JSP 317 Reg.10 (indirect)	<p>Are the following first parade/pre delivery checks being conducted on aviation fuel:</p> <p>Appearance Density Water Detection</p> <p>At the following intervals:</p> <p>The start of each day After 180 minutes (3 hours) if no aircraft have been refuelled following the start of day check After bulking of the BFCV (a minimum of 10 minutes shall be allowed for the fuel to settle post loading before a sample is taken) At change of shift/driver Every 7 days if the vehicle is currently out of use; classed as dormant Stock.</p> <p>A sample shall be drawn from the tank drain and examined for;</p> <p>Appearance (Clear and Bright and free from particulate matter) Test for free water (Shell Water Detection test)</p> <p>Indirect D.Reg 10</p>				
8.2.2	JSP 317 Reg.10 (indirect)	<p>Issue of Aviation Fuel from BFCVs</p> <p>It is recommended that all bulk fuel carrying vehicles be kept as full as is practical at all times and carrier tanks should be filled to 90% of their capacity at the end of the operating period / day to minimise the amount of water formed thereby reducing the risk of microbiological contamination and also depletion of the Fuel System Icing Inhibitor (FSII) in the fuel.</p> <p>Samples are to be taken from the sump of the carrier tank. Contamination tests are to be carried out:</p> <p>a. Each time the vehicle receives fuel from any source, and after a minimum settling time of 10 minutes.</p> <p>b. Where a fuelling vehicle has been out of use for a period of 10 days the contamination test is carried out on the 11th day and is repeated at ten day intervals during the period for which the vehicle is not in use.</p> <p>Indirect D.Reg 10</p>				

8.2.3	2.8.107 Reg.10 (indirect)	<p>Only (FWS) shall be in use, particularly where the fuel handled is F-34/F-44. If fuel filter Monitor vessel is installed in a system that handles fuels containing FSII, they should be appropriately marked to identify that NO elements are installed. Fuel monitors may be in use. In such cases they shall ONLY be used for filtering F-35. Every precaution SHALL be taken to ensure segregation from fuels that contain ANY FSII</p> <ul style="list-style-type: none"> •Check external appearance of vessel. Ensure Data Plate is in place recording info on its design and max rated flow. •Are elements installed all: From the same manuf, of the same type, in date (3 year max life from date of installation),The total rated flow of elements is greater than the rated flow of vessel •PD gauge is calibrated and functioning. Certificate is available, gauge clearly identified. •Is (PD) recorded for the vessel when in use (Max PD is 15 psi) max PD recorded weekly, max PD recorded at, or adjusted to max rated flow. <p>Indirect D.Reg 10</p>				
8.2.4	JSP 317 Reg.10 (indirect)	<p>Maintain accurate monitoring of differential pressure across the filters as this is the only guide to their condition. If the pressure rises beyond the acceptable limits (15 psi) the cartridges are to be replaced.</p> <p>*Note: PD reduction ratio taken from the manufacturers accompanying literature.</p> <p>*PD reduction ratio (include in remarks):</p> <ul style="list-style-type: none"> 90% - 80% - 70% - 60% - 50% - <p>Indirect D.Reg 10</p>				
8.2.5	JSP 317 Reg.9 (indirect)	<p>Note: Coalescer elements should be replaced when the PD reaches 15 psi at their maximum rated flow. If however, the vessel is operated at a lower flow rate, the maximum PD of 15 psi will be reduced.*</p> <p>Are water drains (of the FWS sump) being conducted and recorded When conducted has anything unusual been noted e.g. a smell of rotten eggs is indicative of Micro Biological Contamination. If the system permits direct delivery to aircraft without passing through a further FWS, has a valid Millipore test been conducted within the last three months that provided a satisfactory result.</p> <p>Indirect D.Reg 9</p>				

9. Bulk Waste Installation

9 Bulk Waste Installation				Information only			
Ref							
9.1	JSP 317	Waste F&L has the same impact on the environment as serviceable F&L. Therefore Bulk Waste Storage shall comply with principles laid down at JSP 317.					
9.1 Operation & Function				GRADING			
Ref				G	R	N/A	Remarks
9.1.1	JSP 317 Reg.8 (direct)	Above Ground Storage Tanks- Secondary Containment The bund wall must be capable of retaining 110% of the largest container within the bund or 25% of the aggregate of multiple containers, whichever is greater. FGSR Note Direct Regulation Non-compliance (D.Reg 8)					High Hazard
9.1.2	JSP 317 Reg.8 (direct)	Above Ground Storage Tanks- Secondary Containment The bund wall must: • Be impervious to liquid • Not normally be higher than 1.5m high. • Be fitted with crash protection if susceptible to impact damage e.g adjacent to a vehicle manoeuvring area. FGSR Note Direct Regulation Non-compliance (D.Reg 8)					High Hazard
9.1.3	Reg.8 (indirect)	Above Ground Storage Tanks- Secondary Containment. In order to prevent jetting; a phenomenon caused when the primary container fails and F&L is propelled at force beyond the secondary containment, the bund wall is not to be constructed too close to the tank. Indirect D.Reg 8					
9.1.4	Reg.8 (direct)	Above Ground Storage Tanks - Secondary Containment The bund base and walls must not be penetrated by any valve, pipe or other opening which is used for draining the bund. Where a tank fill or draw off pipe must pass through the bund base or wall, the hole must be carefully sealed with a fire resistant seal to prevent oil escaping. FGSR Note Direct Regulation Non-compliance (D.Reg 8)					High Hazard
9.1.5	JSP 317 Reg.2 (indirect)	Above Ground Storage Tanks - Secondary Containment Rainwater which collects in the sump must be removed on a regular basis to ensure the bund capacity is maintained. This water is to be disposed of appropriately to ensure no pollution occurs. Indirect D.Reg 2					
9.1.6	JSP 317 Reg.9 (indirect)	Inspection of Bunds - Bunds should be regularly inspected for signs of damage and checked for water by the operator on a weekly basis. Indirect D.Reg 9					
9.1.7	JSP 317 Reg.2 (indirect)	Above Ground Storage Tanks - Secondary Containment If oil or a mixture of oil and water is found in the bund it must be disposed of in accordance with current Hazardous Waste Regulations. Indirect D.Reg 2					

9.1.8	JSP 317 Reg.8 (indirect)	<p>Above Ground Storage Tanks - Small Tank Minimum Separation Distances. A small tank is considered to be a tank with a diameter of less than 10m. The minimum separation distances from site boundaries, fixed sources of ignition, buildings and process areas for single small tanks are as follows:</p> <p>Tank Capacity (m³) Separation (m) Less than or equal to 1 1* Greater than 1 and less than or equal to 5 4 Greater than 5 and less than or equal to 33 6 Greater than 33 and less than or equal to 100 8</p> <p>*In this instance the tank must be sited at least 2m from doors, plain glazed windows, other openings or means of escape. In addition they must not be below any openings from an upper floor, regardless of vertical distance.</p> <p>Indirect D.Reg 8</p>				
9.1.9	Oil Storage Regs 01 3 (3) Reg.8 (indirect)	<p>Above Ground Storage Tanks- Secondary Containment Valves should be as resistant to unauthorised interference and vandalism as far as is feasibly possible, with lockable or removable hand wheels.</p> <p>Indirect D.Reg 8</p>				
9.1.10	OSR 01 Reg 3(3) Reg.8 (indirect)	<p>Above Ground Storage Tank- Secondary Containment s All tank vent pipes, valves, filters, sight gauges and any other ancillary equipment with the exception of the fill pipe, draw off pipe or pump if the fuel has a flashpoint of less than 32°C, must be positioned within the bund wall.</p> <p>Indirect D.Reg 8</p>				
9.1.11	OSR 01 Reg 3(3) Reg.1 (indirect)	<p>Above Ground Storage Tanks Valves should be marked to indicate whether they are open or closed, kept locked when not in use and fitted with a blanking cap or plug.</p> <p>Indirect D.Reg 1</p>				
9.1.12	OSR 01 Guidanc e Para 38 Reg.8 (indirect)	<p>Above Ground Storage Tanks The connection point is to be located inside bund wall or be located in a position which allows for containment.</p> <p>Indirect D.Reg 8</p>				
9.1.13	PPG 2 Reg.8 (indirect)	<p>Above Ground Storage Tanks If the filling operation is controlled from a place where it not reasonably practicable to see the tank or its vent pipe, the tank must be fitted with an automatic overfill protection device, which may include an alarm sounding device.</p> <p>Indirect D.Reg 8</p>				
9.1.14	JSP 317 Reg.8 (indirect)	<p>Above Ground Storage Tanks -Sight Glasses The use of sight glasses should be limited to the storage of Class II & III fuel tanks with a maximum capacity of 3500 Ltrs. If sight glasses are fitted they shall:</p> <ul style="list-style-type: none"> • Be located in the secondary containment. • Be properly supported so that they cannot come loose. • Be fitted with a valve that automatically closes when the sight glass is not in use. • Be fitted with valves which are kept closed when not in use and only opened when taking contents readings. <p>Indirect D.Reg 8</p>				
9.1.15	JSP 317 Reg.8 (direct)	<p>The Road Tanker Delivery Stand should be located in a safe, well ventilated position in the open and should offer a clear, unobstructed forward escape route.</p> <p>FGSR Note Direct Regulation Non-compliance (D.Reg 8)</p>				High Hazard

9.1.16	JSP 317 Reg.1 (indirect)	The Road Tanker Delivery Stand – Attended. Prior to a bulk receipt at an attended installation, the delivery driver must be presented with a notice detailing safe delivery/receipt and emergency procedures. The driver is to read and sign the notice to confirm they understand the procedures before commencing delivery. Indirect D.Reg 1-				
9.1.17	JSP 317 Reg.1 (indirect)	The Road Tanker Delivery Stand – Unattended. Where supervision for tanker delivery is not provided, a notice shall be prominently displayed at the delivery point detailing safe delivery and USRP emergency procedures. Additionally, the road tanker driver should be specifically trained to deal with an emergency at the delivery stand during an unattended delivery. Indirect D.Reg 1				
9.1.18	JSP 317 Reg.8 (direct)	The Road Tanker Delivery Stand. The delivery stand should be a minimum of 15m x 5m. If this isn't practicable, signage and barriers are to be used to restrict vehicle and personnel access during transfer operations. FGSR Note Direct Regulation Non-compliance (D.Reg 8)				High Hazard
9.1.19	JSP 317 Reg.10 (direct)	The Road Tanker Delivery Stand. Road tankers shall not be made to wait on public or internal busy roads. The delivery stand should be substantially level to ensure full extraction during deliveries.. If the delivery stand is in close proximity to an above ground storage tank, adequate protection against impact damage is to be provided. FGSR Note Direct Regulation Non-compliance (D.Reg 10)				High Hazard
9.1.20	JSP 317 Reg.8 (direct)	The Road Tanker Delivery Stand must be impermeable to hydrocarbons and be capable of withstanding the axle weight of a fully laden delivery tanker. FGSR Note Direct Regulation Non-compliance (D.Reg 8)				High Hazard

9.2 Fire, Health & Safety		GRADING				
		G	R	N/A	Remarks	
Ref						
9.2.1	JSP 317 JSP 426 Reg.4 (indirect)	The quantity and location of all fire fighting equipment, which is determined by the Unit Fire Officer, must reflect what is stated in the Fire Safety Risk Assessment (FSRA). Indirect D.Reg 4				
9.2.2	JSP 317 Reg.4 (indirect)	An installation specific fire plan is to be available at the installation. It should include details of : <ul style="list-style-type: none"> • Fire detection and alarm systems • Water and other chemical firefighting agents • Firefighting equipment • Emergency shut down procedures • Emergency evacuation procedures & assembly points • Staff fire training • Duties of persons nominated in the plan • Arrangements for testing and updating the plan Indirect D.Reg 4				

9.2.3	JSP 317 Reg.4 (indirect)	<p>Fire Safety Notices & Fire Action Notices must be displayed in order to comply with the Health and Safety (Safety Signs and Signals) Regulations 1996. Locations and quantities should relate to the local risks and be the result of a risk assessment.</p> <p>Indirect D.Reg 4</p> 				
9.2.4	JSP 317 Reg.1 (indirect)	<p>Smoking or Smoking materials are not permitted in the hazardous area. Personnel are to deposit any smoking materials in a safe designated contraband area before entering a hazardous zone or likely hazardous area.</p> <p>Indirect D.Reg 1</p>				
9.2.5	JSP 317 Reg.1 (indirect)	<p>The following Hazard Warning Sign stating "Petroleum Mixture, Highly Flammable, No Smoking or Naked Flames, No Mobile Phones, No Parking" must be displayed on all approaches to the facility:</p> <p>Indirect D.Reg 1</p> 				
9.2.6	JSP 317 Reg.8 (indirect)	<p>Grass and Vegetation is to be cut back to a minimum of 15m. Isolated deciduous trees are permitted but conifers must be removed. Grass cutting and removal of vegetation must be carried out in accordance with the MoD Safety Rules and Procedures for Work on Petroleum installations.</p> <p>Indirect D.Reg 8</p>				

9.3 Environmental Protection			GRADING			
			G	R	N/A	Remarks
Ref						
9.3.1	JSP 317 Reg.4 (indirect)	Spillages to be mopped up immediately using approved absorbent material which must be removed from the area for safe disposal after use.				
9.3.2	JSP 317 Reg.4 (indirect)	Spillage Immediate Action Posters are to be prominently displayed at all Pollution Control Points and locations where F&L is stored.				
9.3.3	JSP 317 Reg.10 (indirect)	<p>The following 'Disconnect the Hose' sign must be displayed at tanker Receipt/Issue points. The sign must be visible from the vehicle cab when the dispensing hose is connected to the installation:</p> 				
9.3.4	JSP 317 Reg.4 (indirect)	A Pollution Control Point (PCP) is to be established at the installation. The PCP must be clearly identifiable, stocked appropriately and be maintained on a regular basis.				

9.4 Operating Procedures			GRADING			
			G	R	N/A	Remarks
Ref						

9.4.1	JSP 317 Reg.1 (indirect)	<p>Segregation. Different types of waste are to be stored separately to avoid the risk of fire, explosion or toxic vapour. Waste products should be collected and mixed into one of the following groupings as detailed in JSP 317.</p> <ul style="list-style-type: none"> • Mineral Oils • Fuel • Glycol's, Glycol Ethers (AL's) <p>The Bulk Waste Tank should be labelled with the specific group heading, prefixed by the word 'Waste' and followed by the word 'Only', e.g:</p> <p>Indirect D.Reg 1</p> <div style="text-align: center;">  </div>				
9.4.2	JSP 317 Reg.8 (indirect)	<p>Only authorised equipment, plant, vehicles or locomotives may enter the hazardous area.</p> <p>Indirect D.Reg 8</p>				
9.4.3	JSP 317 Reg.10 (indirect)	<p>Security. When not in use, all manhole covers, dip hatch covers, outlet points and dipsticks are to be locked. Keys are to be held in safe custody under local arrangements. This requirement may be waived by the Fuels Officer in Charge if the dipsticks and sampling hatches are located inside a secure building.</p> <p>Indirect D.Reg 10</p>				
9.4.4	JSP 317 Reg.10 (indirect)	<p>A high standard of cleanliness is to be maintained at the installation. Rubbish of any kind must not be allowed to accumulate, and the growth of vegetation is to be controlled so as not to present a fire hazard.</p> <p>Indirect D.Reg 10</p>				

9.5 Maintenance		GRADING			
Ref		G	R	N/A	Remarks
9.5.1	<p>DIO PG 06/12 Reg.9 (indirect)</p> <p>The Bulk Waste Storage Tank has been inspected and deemed compliant by a competent member of the Maintenance Management Organisation in accordance with the requirements of the DIO Practitioners Guide 06/12.</p> <p>FGSR Note Direct Regulation Non-compliance (D.Reg 9)</p>				

10. Gas Cylinder Storage Facilities

10.1 Administration / Management Control		GRADING				
		G	R	N/A	Remarks	
Ref						
10.1.1	BCGA CP 44 S9 Reg.10 (indirect)	Are current, regularly reviewed Standard Operating Procedures (SOPs) available (receipt, storage, issue) Indirect D.Reg 10				
10.1.2	BCGA CP 44 S5.7 Reg.7 (indirect)	Is access to the compound restricted to authorised personnel? Are these personnel competent (1.5.6) to access the gas cylinder store?(Records) Indirect D.Reg 7				
10.1.3	BCGA CP 44 S6.2.8 Reg.10 (indirect)	Are "Weekly Inspections" carried out? Records kept? Indirect D.Reg 10				
10.1.4	Routine Mgmt checks BCGA CP 44 S.6.1 Reg.10 (direct)	Are "Receipt and Issue Checks" carried out detailing the following? -Gas cylinder contents correctly identified. -Gas cylinder is in date for its periodic inspection -Lifed gas is in date (e.g. Breathing / diving gases / ABO / medical gases certain toxic gases) -Physical external check of cylinder body / label -Cylinder Physical external check of Valve -Cylinder accessories if fitted are secure & serviceable -No leaks (method of leak checking Teepol, MGI, weight?) -Certificates of Conformity available (as reqd) -Cylinders accounted for (e.g state board) -Cylinders Secured / restrained and are (normally) stored in the upright position in specially designed pallets if provided / cylinders stowage's -Management control of the access keys to ALL gas cylinder compounds. Is there an up to date list of authorised persons who access or may require access to the compound? Direct D.Reg 10				High Hazard

10.2 Additional Management Control - Controlled Gases		GRADING				
		G	R	N/A	Remarks	
Ref						
10.2.1	F Gas Regs 517/201 4 Reg.7 (indirect)	Does the Cyl Compound Manganer hold a list of authorised F- Gas users who are trained to a nationally recognised qualification. (The "User" shall demonstrate the evidence to the Gas Cyl Compound Manager that the "User" is competent). Indirect D.Reg 7				
10.2.2	BCGA CP 44 S6.2.8 Reg.10 (direct)	Controlled Gases Does the Cyl Compound Manager hold a record of Controlled (F) gases held in supply cylinders? Direct D.Reg 10				High Hazard
10.2.3	BCGA CP 44 S6.2.8 Reg.10 (indirect)	Controlled Gases Does the Cyl Compound Manager hold a record of quantities of Controlled (F) Gases recovered? (Recovery Cylinders as recorded on the label) (Note if supply Cyls are issued, there must be Recovery Cyls) Indirect D.Reg 10				

10.2.4	BCGA CP 44 S6.2.8 Reg.10 (indirect)	Controlled Gases Does the Cyl Compound Manager hold a record of Recovery Cylinders that have been returned to BOC? Indirect D.Reg 10				
10.2.5	BCGA CP 44 S6.2.8 Reg.10 (direct)	Controlled Gases Controlled (F) gases. Is there a record of Controlled (F) gas leakages? (How? Visual? Teepol? Weight?) Direct D.Reg 10				High Hazard
10.2.6	BCGA CP 44 S6.2.8 Reg.10 (indirect)	Recovery Cylinders. Are empty, unused Recovery Cylinder Valves protected by shrink wrap (evidence that they are unused) Indirect D.Reg 10				
10.2.7	BCGA CP 44 S6.2.8 Reg.10 (indirect)	Recovery Cylinders, Has Gas Cylinder Compound Manager ensured that operating unit has correctly annotated filled Recovery Cylinder with refrigerant gas & weight on affixed label on cylinder body. Indirect D.Reg 10				

10.3 Siting			GRADING			
			G	R	N/A	Remarks
Ref						
10.3.1	BCGA CP 44 S5.3.2, S5.8 Reg.8 (indirect)	Ventilation. Thorough ventilation by "clean" air required. Is the store located in an area where it may receive contaminated air e.g. aircraft jet efflux, or where there is substantial interference in the air flow from obstructions Indirect D.Reg 8				
10.3.2	BCGA CP 44 S5.3.7 Reg.8 (indirect)	Underground power cables "District" electrical cables shall not be routed through gas cylinder compounds. (Records –evidence of support) (Electrical power cables may be routed through gas cylinder compounds that are used to supply the gas compound). See "operation & function" below Indirect D.Reg 8				
10.3.3	BCGA CP 44 S5.3.7 Reg.8 (indirect)	Overhead power cables Gas cylinder compounds shall not be located underneath electricity power cables or telephone lines. Cables operating at a voltage <1.0 KV, cylinders to be >1.5m away (line drawn vertically down). Cables operating at a voltage >1.0 KV, cylinders to be >10m away (line drawn vertically down). (Identification of Power supply lines to be provided by competent person) Indirect D.Reg 8				
10.3.4	BCGA CP 44 S5.3.7 Reg.8 (indirect)	Is there a hazard from other infrastructure e.g. electrical installations, power cables (above and below ground), thermal radiation, and electromagnetic radiation? Indirect D.Reg 8				
10.3.5	BCGA CP 44 S5.4.1 Reg.8 (indirect)	Is the outdoor gas compound sited as a standalone compound? (Segregation distances from compound fence to other recipients?) Indirect D.Reg 8				
10.3.6	BCGA CP 44 App 2 Reg.8 (indirect)	Is there a space outside the storage area perimeter that is clear of all combustible material & vegetation to 3m? Indirect D.Reg 8				
10.3.7	BCGA CP 44 S5.3.9 App 2 Reg.8 (indirect)	Is the site located close to access routes for vehicles Armco barriers fitted? Indirect D.Reg 8				

10.3.8	BCGA CP 44 S5.12.6 Reg.4 (indirect)	Is there a readily available telephone to aid emergency response within 50m of the gas compound? Indirect D.Reg 4				
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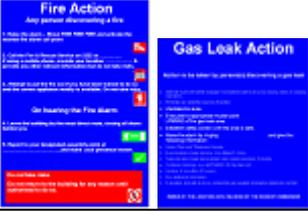
10.4 Operation & Function			GRADING			
			G	R	N/A	Remarks
Ref						
10.4.1	BCGA CP 44 S5.10 Reg.8 (indirect)	Lighting. Adequate lighting shall be provided to allow safe working activities in poor light conditions and to assist in the identification of cylinder types. Lighting is to be suitably protected. Not an ignition source. Indirect D.Reg 8				
10.4.2	BCGA CP 44 S5.7 Reg.8 (direct)	Gas compound facility (e.g. fencing, gates, and pipework) to be adequately earthed, based on Risk Assessment (Recorded, evidence). If installed iaw RA FGSR Note Direct Regulation Non-compliance (D.Reg 8)				
10.4.3	BCGA CP 44 S5.11 Reg.8 (direct)	Gas compound facility (e.g. fencing, gates, and pipework) to be protected against static electricity, based on Risk Assessment (Recorded, evidence). If installed iaw RA FGSR Note Direct Regulation Non-compliance (D.Reg 8)				
10.4.4	BCGA CP 44 S5.7.4 Reg.8 (indirect)	Is the compound secure? Fenced/permanent walls at least 1.8m in height. Secure access gates. Indirect D.Reg 8				
10.4.5	BCGA CP 44 S5.9.6 Reg.8 (indirect)	Do access doors open outwards and have the correct security locks? Indirect D.Reg 8				
10.4.6	BCGA CP 44 S5.15.5 Reg.8 (direct)	Gas monitoring. Gas detection equipment shall be installed unless Risk Assessment can mitigate that the largest foreseeable escape of particular gas will cause no danger to health of persons or damage to environment. (Records, evidence). (e.g. Asphyxiant, Toxic, F-gas, oxygen enrichment) If installed iaw RA FGSR Note Direct Regulation Non-compliance (D.Reg 8)				
10.4.7	BCGA CP 44 S5.8.3 Reg.8 (indirect)	Outdoor Gas Storage compound to be well ventilated. a. No more than 25% of perimeter walls to be obstructed by solid walls. (Where practicable solid walls should be on opposite sites). (Open wire mesh or steel louvers are suitable for use as free venting sides) (Low level ventilation for heavier than air gases) b. Roof if fitted (e.g. slatted roofs lighter than air gases) Indirect D.Reg 8				High Hazard
10.4.8	BCGA CP 44 S5.4.1 Reg.8 (indirect)	If barriers are constructed within the compound; Cylinders stored against barriers / partitions (if constructed) Indirect D.Reg 8				
10.4.9	BCGA CP 44 S5.4.1 Reg.8 (indirect)	Is the compound constructed from non-combustible materials? -Barriers to be constructed from fire resistant material -Barrier height 2m (minimum) -Cylinders to be smaller (shorter) than barrier Indirect D.Reg 8				High Hazard

10.4.1 0	BCGA CP 44 S5.5 Reg.8 (indirect)	Is the compound floor flat & constructed from concrete or other non-porous material? Indirect D.Reg 8				
10.4.1 1	BCGA CP 44 S5.5.4 Reg.8 (indirect)	Does the floor have a suitable runoff to remove rainwater Indirect D.Reg 8				
10.4.1 2	BCGA CP 44 S5.5.5 Reg.8 (direct)	Is the drainage system designed to prevent contaminants entering other controlled drainage / soakaways or Controlled waters? (e.g. fitment of suitable gas trap in drain) FGSR Note Direct Regulation Non-compliance (D.Reg 8.)				High Hazard
10.4.1 3	BCGA CP 44 S5.13 Reg.1 (indirect)	Is the compound correctly sign-posted? Hazard(s) identified. Emergency actions detailed. Boundary warning signs and pictograms shall be clearly visible from all angles of approach. All gas storage sites shall display the following signs/pictograms/notices on the access point and boundary fence or wall: a. Danger – explosive gases. b. No smoking. c. No naked flames. d. No mobile phones. e. No access to unauthorised personnel. f. No storage of oil, grease or combustible materials The appropriate diamond hazard labels shall also be displayed. However, if the stored gases would require more than two subsidiary diamond hazard labels, the primary diamond hazard label(s) should be used instead. Examples below: Indirect D.Reg 1				
10.4.1 4		The following questions are for Internal Gas Cylinder Storage Compounds				
10.4.1 5	BCGA CP 44 S5.15.1 Reg.8 (indirect)	Construction – evidence of construction of non-combustible materials. When part of a larger building, internal store shall be separated from rest of building by firewall (fire resistant) Indirect D.Reg 8				
10.4.1 6	BCGA CP 44 S5.15.3 Reg.8 (indirect)	Construction - Explosive Relief. One wall or the roof must be made of open mesh or lightweight friable material to provide explosive relief. Relief partition to be designed so that any explosion would vent safely without producing dangerous projectiles (Recorded, evidence). Indirect D.Reg 8				
10.4.1 7	BCGA CP 44 S5.15.3 Reg.8 (direct)	All equipment / fittings lighting within the internal storeroom. Is it applicable to the gas hazard stored? (e.g. ATEX- flammable gases) e.g. Is it & designed & maintained FGSR Note Direct Regulation Non-compliance (D.Reg 8)				



10.4.18	BCGA CP 44 S5.15.2 Reg.8 (indirect)	Construction. If indoors, as a compartment within a single story building, with at least one external wall. Indirect D.Reg 8				
10.4.19	BCGA CP 44 S5.15.4 Reg.8 (direct)	Gas detection. Is Atmospheric Monitoring provided? Is there a serviceable alarm (flashing lights, alarms) both inside & outside the store? Evidence of serviceability of system / calibration? FGSR Note Direct Regulation Non-compliance (D.Reg 8)				High Hazard
10.4.20	BCGA CP 44 S5.15.4 Reg.8 (direct)	Ventilation. Does it have thorough ventilation to a safe place (Recorded, evidence) Evidence of serviceability of system / calibration? FGSR Note Direct Regulation Non-compliance (D.Reg 8)				High Hazard
10.4.21	BCGA CP 44 S5.15.4 Reg.8 (direct)	Forced ventilation. Serviceable LEV system must be alarmed to warn of failure (Recorded evidence) Evidence of serviceability of system / calibration? FGSR Note Direct Regulation Non-compliance (D.Reg 8)				High Hazard
10.4.22	BCGA CP44 App 5 Reg.8 (indirect)	Ventilation. Buildings containing flammable gases to have openings >= 2.5% of the combined area of the walls & roof of the room Or 12% of the area of one of the external walls Whichever the greater. (Recorded, evidence) Indirect D.Reg 8				
10.4.23	BCGA CP 18 S6.2. S6.5 Reg.10 (direct)	Very Toxic gas cylinders shall not be stored in internal storage. Indirect D.Reg 10				High Hazard
10.4.24	BCGA CP 44 S6.2.8 BCGA CP 18 Reg.10 (direct)	Pyrophoric cylinders shall not be stored in internal storage. Indirect D.Reg 10				High Hazard

10.5 Fire, Health & Safety		GRADING				
		G	R	N/A	Remarks	
Ref						
10.5.1	BCGA CP44 S.5.12.7 Reg.4 (indirect)	Is the available fire fighting equipment as per the Station Fire Officers recommendations? <ul style="list-style-type: none"> Minimum of 2 x extinguishers for a Class C fire (gases or liquefiable gases). For flammable gases these to be 2 x 9 kg dry powder fire extinguishers. Indirect D.Reg 4				
10.5.2	BCGA CP44 S.5.12.1 JSP 426 Reg.4 (indirect)	An installation specific fire plan is to be available at the installation. It should include details of : <ul style="list-style-type: none"> Fire detection and alarm systems Water and other chemical firefighting agents Firefighting equipment Emergency shut down procedures Emergency evacuation procedures & assembly points Staff fire training Duties of persons nominated in the plan Arrangements for testing and updating the plan Indirect D.Reg 4				

10.5.3	JSP 426 Reg.4 (indirect)	Are fire posters and emergency evacuation posters available, in good condition and up-to-date? Located at all entry points. Indirect D.Reg 4 				
10.5.4	BCGA CP44 S.5.12.8 Reg.1 (indirect)	Smoking is not permitted within 3m of the storage facility. Signage. Indirect D.Reg 1				
10.5.5	HSAWA JSP 319 Reg.1 (indirect)	First Aid Boxes Have they been provided? Are they maintained / serviceable? Are First aid box locations identified? Are First Aiders clearly identified? Is signage adequate and correct? Indirect D.Reg 1				
10.5.6	BCGA CP44 S8.2.13 Reg.8 (indirect)	Is manual handling equipment available – e.g. cylinder trolleys? Are they of the correct size and type? Is it of the correct type Is it serviceable? Risk Assessment - Records – Evidence? e.g. If Fork Lift Trucks are employed are they suitable for use in this environment? (Atex Compliant- flametec in explosive atmos?) Indirect D.Reg 8				
10.5.7	BCGA CP44 S8.2.1 Reg.1 (indirect)	Do all personnel have their own suitable PPE? Is it in good condition? Is it stored correctly, maintained and inspected? PPE. Is PPE applicable for hazards identified from R.A? e.g. manual handling, safety footwear, gloves and eye/face protection. Cryogenics LPG. Toxics Separate clean, grease free PPE / clothing for oxygen Indirect D.Reg 1				

10.6 Store Organisation		GRADING			
		G	R	N/A	Remarks
Ref					

10.6.1	BCGA CP44 S6.2 Reg.1 (indirect)	<p>Is there appropriate segregation? -Are these segregated areas signposted? -Full and empty cylinders separated. -Hazard groups (flammable/oxidising/inert/toxic etc.) separated. Cylinders of the same hazard group shall remain together -LPG cylinders separated. -Unserviceable cylinders separated. -Medical cylinders separated. (In separate storage facility) -Note: Nominally empty cylinders to be treated as full for zoning and separation distance calculations -Is there sufficient room to allow safe movement of personnel and any mechanical aids? Minimum isle size 0.6 m.</p> <p>Indirect D.Reg 1</p>				
10.6.2	BCGA CP44 S6.2.14 Reg.8 (indirect)	<p>On all cylinders (including nominally empty cylinders) the valve is to be closed. The valve outlet is to be protected.</p> <p>Indirect D.Reg 8</p>				
10.6.3	BCGA CP44 S5.15.3. 3 Reg.10 (indirect)	<p>Only the minimum quantity of cylinders necessary are being stored. Nominally empty, unwanted or unserviceable cylinders are returned promptly.</p> <p>Indirect D.Reg 10</p>				
10.6.4	BCGA CP44 S5.15.3. 8 Reg.8 (indirect)	<p>The provision of a device to indicate wind direction is to be considered, based on R.A.</p> <p>Indirect D.Reg 8</p>				
10.6.5	BCGA CP44 S5.9.1 Reg.8 (indirect)	<p>Is the site of an adequate size for the quantity and type of cylinders being stored?</p> <p>Indirect D.Reg 8</p>				
10.6.6	BCGA CP44 S5.9.4 Reg.8 (indirect)	<p>Vehicles & pedestrians routes segregated & marked</p> <p>Indirect D.Reg 8</p>				
10.6.7	BCGA CP44 S5.9.4 Reg.8 (indirect)	<p>No sharp bends corners, blind areas, restrictive height for vehicle movements</p> <p>Indirect D.Reg 8</p>				
10.6.8	BCGA CP44 S6.4 Reg.8 (direct)	<p>Is access adequate for delivery vehicles including emergency escape routes, identified and clear? (Other vehicles prohibited parking in delivery lorry drop off / collection points)</p> <p>FGSR Note Direct Regulation Non-compliance (D.Reg 8)</p>				High Hazard
10.6.9	BCGA CP44 S6.2.10 Reg.8 (indirect)	<p>Cylinders to be vertically stacked (Unless specifically designed to be belly stacked)</p> <p>Indirect D.Reg 8</p>				

11. Cryogenic Liquid Storage Facilities

CRYOGENIC STORAGE VESSELS

Capacity	Water Capacity	Tank Owner	Facility RPC	Type	Serial No.	Firewall

11.1 CRYOGENIC LIQUID STORAGE FACILITIES

11.1.1 Administration Management Control			GRADING			
			G	R	N/A	Remarks
Ref						
11.1.1.1	BGCA CP 36 S.7.1.2 Reg.10 (indirect)	Are current, regularly reviewed Standard Operating Procedures (SOPs) available (receipt, storage delivery) Indirect D.Reg 10				
11.1.1.2	PSSR 2000 RAF Air Publications Reg.9 (direct)	Cryogenic storage tanks, MOD Maintenance policy iaw Air Publication system. 2400 L Tank (Mk1 Mk2) 4000 L Tank 9000 L Tank 18000 L Tank Is the plant serviceable? Aviation Engineering lead – However operators shall demonstrate JAP / MAP compliance (MF731 MF707) FGSR Note Direct Regulation Non-compliance (D.Reg 9)				High Hazard
11.1.1.3	PSSR 2000 BCGA CP 39 Reg.9 (direct)	Cryogenic storage tanks (BOC/ Contractor) Maintenance policy of tank with Contractor. (Evidence – Records) FGSR Note Direct Regulation Non-compliance (D.Reg 9)				High Hazard
11.1.1.4	MHSW Regs 1999 Reg.8 (direct)	Identification of exact point at which the Contractors responsibility ends & MODs / DIO begins, To be demonstrated in written procedures / SOPs and physically on plant / infra. FGSR Note Direct Regulation Non-compliance (D.Reg 8)				High Hazard
11.1.1.5	PSSR 2000 Reg.9 (direct)	Cryogenic liquid storage compounds: System pipework to be maintained iaw PSSR 2000. (evidence of WSE etc) FGSR Note Direct Regulation Non-compliance (D.Reg 9)				High Hazard

11.1.1.6	BCGA CP 36 S.3.4.5 Reg.1 (direct)	Confined Spaces- Adjacent Spaces to Cryogenic Liquid Storage Compound. Permit –to- Work / Standing Instruction, suitable Risk assessment required to enter inspection pit, cable ducts, wells or other confined space adjacent to an installation storing cryogenic liquids. (Drains / confined spaces -15m from tank) Evidence- Records Signage on adjacent spaces? FGSR Note Direct Regulation Non-compliance (D.Reg 1)				High Hazard
11.1.1.7	BCGA CP 36 App 5 Reg.10 (indirect)	Emergency Shower Use of emergency shower & emergency service response is to be included in SOPs Indirect D.Reg 10				
11.1.1.8	JSP 375 Reg.9 (indirect)	Cryogenic liquid storage compounds. Emergency Shower maintenance, inspection, & testing (records, evidence) a. 1 monthly visual inspection, Flush, verification of proper operation of & testing of the alarm system. b. Annual clearing inspection & compliance assessment. Indirect D.Reg 9				
11.1.1.9	PSSR 2000 Reg.9 (indirect)	Has the site completed a current BOC Audit Checklist Third Party Owned Vessels (BOC Form GERTL002) Indirect D.Reg 9				

11.1.2 Siting		GRADING				
		G	R	N/A	Remarks	
<i>LOx sites - other cryogenic liquids treated same</i>						
Ref						
11.1.2.1	JSP 434 CDM Regs Reg.8 (indirect)	All new installations, or substantial changes to a site, are subject to a Siting Board. Recorded? Signed off by all parties? (also part of handover check) Indirect D.Reg 8				
11.1.2.2	JSP 319 Reg.8 (indirect)	New LOx sites, a minimum safety distance of 1500m from any other area of risk is recommended. If not feasible then: Local protection around site to prevent unauthorised access. Prevention of contamination entering the site. Risk assessment of dynamic movement of Cryogenic storage compound – potential liquid. / vapour cloud migration (Unit to demonstrate RA carried out) (also part of handover check) Indirect D.Reg 8				
11.1.2.3	BCGA CP 36 S.3.4.4 App 6 Reg.8 (indirect)	Ventilation. Thorough ventilation by fresh uncontaminated ambient air – separation may have to be greater than separation distances listed below. e.g. consideration against aircraft jet exhaust fumes (also part of handover check) Indirect D.Reg 8				
11.1.2.4	BCGA CP 36 S.4.4.5 Reg.8 (indirect)	Provision of wind direction indication (e.g. windssock)? Indirect D.Reg 8				

11.1.2.5	BCGA CP 36 App 3 Reg.8 (indirect)	Safety distances from cryogenic storage tank to: -Public roads / railways 50m -Flammable liquid / gases storage 25m -Aircraft parking, refuel / defuel 25m -Traffic Routes 15m -Parked Vehicles 15m -Combustible solid materials 15m -Inlet to sewage system / drains 15m -Inlet to underground conduits 15m -Buildings 15m -Aircraft Taxiways 15m -Asphalt / tar based surface 15m -Uncultivated land 15m -Property Boundary 15m -Battery operated Non intrinsic electrical devices 15m -Fire, open flame, smoking areas 15m -VHF UHF radio 15m -HF radio 70m -Bowman radio 70m Indirect D.Reg 8				
11.1.2.6	BCGA CP 36 App 3 Reg.8 (indirect)	Cryogenic Liquid Storage Compounds shall not be sited directly under electricity or phone cables Indirect D.Reg 8				
11.1.2.7	BCGA CP 36 S.4.3.7 Reg.8 (indirect)	Cryogenic Liquids boil off pit. Located away from windows, doors, escape exits. Indirect D.Reg 8				
11.1.2.8	BCGA CP 36 S.3.7.2 App 2 Reg.8 (indirect)	Cryogenic Liquids boil off pit. Free from contaminants. No carbonaceous materials present? (e.g. leaves, oils, grasses) Indirect D.Reg 8				
11.1.2.9	BCGA CP 36 S.3.4.5 Reg.8 (indirect)	Cryogenic Liquids boil off pit. (Subj to RA). Dependant on spillages into pit, the pit may need to be considered as a confined space. If so, Barriers, warning signs shall be fitted Indirect D.Reg 8				

11.1.3 Operation & Function		GRADING				
		G	R	N/A	Remarks	
Ref						
11.1.3.1	BCGA CP 36 S.3.6 Reg.1 (indirect)	Oxygen enrichment of air. Low temperatures – bulk LiN, Liquid Helium. LOx may be precipitated out, of the atmosphere when handling LiN & Liquid Helium. Cryogenic liquid storage compounds storing LiN, Liquid Helium to be RA for oxygen enrichment (NO OILS GREASES PRESENT, OXYGEN COMPATIBLE PRODUCTS USED) Indirect D.Reg 1				
11.1.3.2	BCGA CP 36 S.3.7.1 Reg.8 (indirect)	Oxygen compatible PTFE tape – NSN 71a-8030-99-5624616 shall be used on cryogenic liquid systems (sparingly) Indirect D.Reg 8				
11.1.3.3	BCGA CP 36 S.3.7.3 Reg.8 (indirect)	Construction of Cryogenic liquid storage compounds. No combustible material to be used in the construction of compound. Indirect D.Reg 8				

11.1.3.4	BCGA CP 36 S.3.7.1 Reg.8 (indirect)	Construction of Cryogenic liquid storage compounds. Walls to be of solid construction (plasterboard not recommended). Internal rough brick / block work shall be coated with smooth coat of gypsum / lime based plaster. Indirect D.Reg 8				
11.1.3.5	BCGA CP 36 S.3.7.3 Reg.8 (indirect)	Construction of Cryogenic liquid storage compounds. Floor shall be solid construction, non-combustible materials. Floor to be sloped (1:80 - 1:100) to safe area (away from storage tanks, compound entrance) - towards boil off pit. Indirect D.Reg 8				
11.1.3.6	BCGA CP 36 S.3.7.3 Reg.8 (indirect)	Construction of Cryogenic liquid storage compounds. Floor - asphalt / Tarmac surfaces shall not be used. Recommend concrete surface with oxygen compliant silicone based jointing compound. Indirect D.Reg 8				
11.1.3.7	BCGA CP 36 App 6 Reg.8 (indirect)	Construction of Cryogenic liquid storage compounds. Enclosed or semi enclosed spaces covering cryogenic tanks. (Dutch Barns) Specific Risk Assessment to be carried out. (Forced ventilation, blast relief panels/ roofs etc) (also part of handover check) Indirect D.Reg 8				
11.1.3.8	BCGA CP 36 S.4.4.1.4 Reg.8 (indirect)	Construction of Cryogenic liquid storage compounds. Boundary/ security. Fence to be open type (chain link or similar) – restrict entry to unauthorised personnel & be 1.8m high. Indirect D.Reg 8				High Hazard
11.1.3.9	BCGA CP 36 S.4.4.1.4 Reg.8 (indirect)	Construction of Cryogenic liquid storage compounds. Boundary fence to have 2 access points. Gates to be of similar construction to fence. 2nd emergency exit min 0.8m wide. Indirect D.Reg 8				
11.1.3.11	BCGA CP 36 S.4.4.1.4 Reg.4 (indirect)	Emergency exit to open in direction of escape Emergency exit to be fitted with panic furniture (lock type not requiring key, card, or code for opening). Escape means to be unobstructed Indirect D.Reg 4				
11.1.3.12	BCGA CP 36 S.5.3 Reg.8 (indirect)	Road tanker –safe unrestricted access/ egress FGSR Note Direct Regulation Non-compliance (D.Reg 8)				High Hazard
11.1.3.13	BCGA CP 36 App 4 Reg.8 (indirect)	Tanker operator should have clear line of sight to see both delivery tanker & cryogenic storage vessel Indirect D.Reg 8				High Hazard

11.1.3.14	BCGA CP 36 S4.4.6.6 App 4 Reg.8 (indirect)	Cryogenic liquid storage compounds A concrete apron beneath the rear of the tanker is parked is required. FGSR Note Direct Regulation Non-compliance (D.Reg 8)				High Hazard
11.1.3.15	BCGA CP 36 S.4.4.6.1 Reg.8 (indirect)	Cryogenic liquid storage compounds. The liquid transfer area shall be designated a "No parking area" (annotation signage, marking) Indirect D.Reg 8				
11.1.3.16	BCGA CP 36 S4.4.6.3 Reg.8 (indirect)	Cryogenic liquid storage compounds. Protective barriers (kerbs , bollards) are to be installed around cryogenic storage tanks to prevent vehicular impact Indirect D.Reg 8				High Hazard
11.1.3.17	BCGA CP 36 S.4.4.8 Reg.1 (indirect)	Cryogenic liquid storage compounds. Pipelines. Connection fittings of multi-storage installations, pipework connecting storage tanks, or long fill lines are to be clearly marked with the gas name or symbol. Marking / labelling is to be at the inlet /outlet & approximately 2m intervals Indirect D.Reg 1				
11.1.3.18	BCGA CP 36 App 2 Reg.1 (indirect)	Cryogenic liquid storage compounds. Pressure Gauges. All pressure gauges used for liquid / gaseous oxygen shall have dials inscribed "OXYGEN" and "TESTED WITHOUT OIL" or "OIL FREE". Example (oil can crossed out = oil free) Indirect D.Reg 1 				
11.1.3.19	BCGA CP 36 App 5 Reg.4 (indirect)	Cryogenic liquid storage compounds. Emergency Shower. Drench type shower with eye bath shall be installed. Indirect D.Reg 4				High Hazard
11.1.3.20	BCGA CP 36 App 5 Reg.4 (indirect)	Cryogenic liquid storage compounds. Emergency Shower. Shower to be located such to avoid impeding normal operations. Water to drain away as not to form ice (contact with cryogenic liquids) Indirect D.Reg 4				
11.1.3.21	JSP 319 Reg.4 (indirect)	Cryogenic liquid storage compounds. Emergency Shower Automated alarm system shall be attached to the shower & connected to appropriate recipient (e.g. guardroom, medical centre) Indirect D.Reg 4				
11.1.3.22	JSP 375 Reg.4 (indirect)	Cryogenic liquid storage compounds. Emergency Shower. Water supply – clean potable Water supply – flow for 15 mins uninterrupted Water supply – maintained above 0° C, below 20°C. Indirect D.Reg 4				

<p>11.1.3.23</p>	<p>H&S Safety Signs & Signals Regs) 1996 Reg.4 (indirect)</p>	<p>Cryogenic liquid storage compounds. Emergency Shower. Relevant symbol or pictogram to be clearly displayed.</p> <p>Indirect D.Reg 4</p> 			
<p>11.1.3.24</p>	<p>H&S Safety Signs & Signals Regs) 1996 BCGA CP 36 S. 5.4.1. Reg.1 (indirect)</p>	<p>Cryogenic liquid storage compounds. Signage Entrance to the compound to have the following cryogenic signs displayed.</p> <p>NO SMOKING NO NAKED LIGHTS NO STORAGE OF OIL, GREASE OR COMBUSTIBLE MATERIALS EXTREME COLD HAZARD AUTHORISED PERSONS ONLY NO MOBILE PHONES NO STEEL TIPPED SHOES / BOOTS</p> <p>For cryogenic (LOx) storage compounds LIQUID OXYGEN OXIDISING SUBSTANCE</p> <p>For liquid nitrogen / argon / helium storage compounds LIQUID NITROGEN (ARGON / HELIUM) as appropriate ASPHYXIATION HAZARD</p> <p>Indirect D.Reg 1</p> 			
<p>11.1.3.25</p>	<p>BCGA CP 36 S.5.4.1. Reg.1 (indirect)</p>	<p>Cryogenic liquid storage compounds. Signage A shall be displayed detailing the specific action to be taken in the event of an emergency detailing: WHOM TO CONTACT / EMERGENCY CONTACT DETAILS CONTACT DETAILS OF CRYOGENIC LIQUID SUPPLIER CRYOGENIC LIQUID SUPPLIER EMERGENCY 24 HR NUMBER</p> <p>Indirect D.Reg 1</p>			
<p>11.1.3.27</p>	<p>BCGA CP 36 S. 5.4.1. Reg.1 (indirect)</p>	<p>Cryogenic liquid storage compounds. Each individual tank shall be clearly labelled with its contents & associated UN Number. LIQUID OXYGEN UN1073 LIQUID NITROGEN UN 1977 LIQUID ARGON UN 1951</p> <p>Indirect D.Reg 1</p>			
<p>11.1.3.28</p>	<p>BCGA CP 36 S.4.4.2 Reg.9 (direct)</p>	<p>Earthing: Evidence that all metal fitments / joints in Cryogenic Liquid Storage Compound are adequately earthed? (Records?)</p> <p>FGSR Note Direct Regulation Non-compliance (D.Reg 9)</p>			<p>High Hazard</p>
<p>11.1.3.29</p>	<p>BCGA CP 36 S.4.3.7 Reg.8 (indirect)</p>	<p>Cryogenic Liquids boil off pit. Dedicated area to facilitate safe evaporation of spillage of cryogenic liquid. (Size: Not needed for 110% tank capacity, but for foreseeable spills)</p> <p>Indirect D.Reg 8</p>			

11.1.3. 30	BCGA CP 36 App 3, Pge 3 Reg.8 (indirect)	Cryogenic Liquids boil off pit Constructed with oxygen compatible non porous materials that will not cold brittle fracture Indirect D.Reg 8				
11.1.3. 31	BCGA CP 36 S. 8.2; S.4.3.7 Reg.8 (indirect)	Cryogenic Liquids boil off pit. Pit shall be totally independent of soakaways used to intercept F&L spillages and surface water runoff from aircraft aprons & runways. Indirect D.Reg 8				

11.1.4 Operating Procedures			GRADING			
			G	R	N/A	Remarks
Ref						
11.1.4. 1	BCGA CP 36 App 5 BS 5479:19 76 S.4 Reg.10 (indirect)	Personnel who have worked in an oxygen enriched atmosphere (delivery, transfer) shall not smoke; go near heat sources / naked flames, until they have ventilated their clothing for 15 mins. Written Procedures? Indirect D.Reg 10				
11.1.4. 2	BCGA CP 36 S 3.8 Reg.10 (indirect)	All joints on hoses / coupling shall not be unduly tightened when the parts are cold soaked. To rectify leakages. (leaks can be detected by an accumulation of ice around area) Hammers shall not be used on cold soaked joints couplings; the correct "C" spanner shall be used. Indirect D.Reg 10				
11.1.4. 3	JSP 319 CGMS Stafford Reg.10 (indirect)	Safety Man. Safety Man shall be correctly dressed & present during cryogenic liquid transfer (delivery / transfer) Written Procedures? Indirect D.Reg 10				
11.1.4. 4	JSP 319 CGMS Stafford Reg.10 (indirect)	Safety Man Safety Man not to be involved in the activity Written Procedures? Indirect D.Reg 10				
11.1.4. 5	BCGA CP 36 S 4.4.1. Reg.10 (indirect)	Gas monitoring. Gas detection equipment shall be installed unless Risk Assessment can mitigate that the largest foreseeable escape of particular gas will cause no danger to health of persons or damage to environment. (Records, evidence). (e.g. Asphyxiant, Toxic, F-gas, oxygen enrichment) Indirect D.Reg 10				
11.1.4. 6	BCGA CP 36 S.3.7.2 App 2 Reg.10 (indirect)	LOx equipment / personal. Hydrocarbon based oils greases, soaps shall NOT be used within the cryogenic liquid storage compound. (e.g. no evidence of grease in valves, oily PPE, no food) Indirect D.Reg 10				

11.1.5 Fire, Health & Safety			GRADING			
			G	R	N/A	Remarks
Ref						
11.1.5. 1	BCGA CP 44 Reg.1 (indirect)	If industrial gas cylinders are stored inside a specially constructed room within a building a bespoke risk assessment is required. (recorded, evidence) Indirect D.Reg 1				

<p>11.1.5.2</p>	<p>BCGA CP 36 S.3.7.2 JSP 426 Reg.4 (indirect)</p>	<p>An installation specific fire plan is to be available at the installation.</p> <p>It should include details of :</p> <ul style="list-style-type: none"> • Fire detection and alarm systems • Water and other chemical firefighting agents • Firefighting equipment • Emergency shut down procedures • Emergency evacuation procedures & assembly points • Staff fire training • Duties of persons nominated in the plan • Arrangements for testing and updating the plan <p>Indirect D.Reg 4</p>				
<p>11.1.5.3</p>	<p>BCGA CP 36 S.4.4.14 .8 Reg.4 (indirect)</p>	<p>Are fire posters and emergency evacuation posters available, in good condition and up-to-date? Located at all entry points.</p> <p>Indirect D.Reg 4</p> <div data-bbox="539 667 847 880" style="text-align: center;"> </div>				
<p>11.1.5.4</p>	<p>BCGA CP 36 S. 3.7.1; S.4.4.14 .6 Reg.8 (indirect)</p>	<p>Construction – evidence of construction of non-combustible materials. When part of a larger building, internal store shall be separated from rest of building by firewall – 60 mins fire resistance.</p> <p>Indirect D.Reg 8</p>				
<p>11.1.5.5</p>	<p>BCGA CP 36 App 6 Reg.8 (indirect)</p>	<p>Construction. If indoors, as a compartment within a single story building, with at least one external wall.</p> <p>Indirect D.Reg 8</p>				
<p>11.1.5.6</p>	<p>BCGA CP 36 S.4.4.14 .8 Reg.8 (direct)</p>	<p>Gas detection. Is Atmospheric Monitoring provided? Is there a serviceable alarm (flashing lights, alarms) both inside & outside the store? Evidence of serviceability of system / calibration?</p> <p>direct D.Reg 8</p>				<p>High Hazard</p>
<p>11.1.5.7</p>	<p>BCGA CP 36 S.4.4.14 .8 Reg.8 (direct)</p>	<p>Ventilation. Does it have thorough ventilation to a safe place max O2 23.5% min O2 19.5% - Evidence of serviceability of system / calibration? I</p> <p>Direct D.Reg 8</p>				<p>High Hazard</p>
<p>11.1.5.8</p>	<p>BCGA CP 36 S.3.7.3. 2 Reg.1 (indirect)</p>	<p>PPE be solely of LOx usage. Clean – oil free.</p> <p>Indirect D.Reg 1</p> <div data-bbox="603 1697 783 1944" style="text-align: center;"> </div>				

12. Bulk LPG Storage Facilities

BULK LPG STORAGE VESSELS

Capacity	Water Capacity	Tank Owner	Facility RPC	Type	Serial No.	Firewall

12.1 BULK LPG STORAGE FACILITIES

12.1.1 Administration / Management Control			GRADING			
			G	R	N/A	Remarks
Ref						
12.1.1.1	UKLPG CP 1 Para 7.1.3 Reg.10 (indirect)	Are current, regularly reviewed Standard Operating Procedures (SOPs) available for operator compound entry. Indirect D.Reg 10				
12.1.1.2	DIO PG 2015/01	Demarcation of responsibility of ownership of management of Bulk LPG vessel / supportive structure and pipework to be clearly defined and recorded in writing and understood by all parties. Point of isolation to be clearly identified. (e.g. output of 1st Stage Regulator) FGSR Note Direct Regulation Non-compliance (D.Reg 1- HSE Table 3- I.N)				High Hazard
12.1.1.3	DIO GSC Pt 3 Reg.7 (direct)	LPG Compounds access for maintenance Only Competent / Authorised Personnel shall enter LPG Bulk Storage Compounds – Maintenance; Cyl Contractor – competent, MMO, (P t W / Standing Instructions SI. Any specific training required from Contractor?(RPC Competent) P t W / SI FGSR Note Direct Regulation Non-compliance (D. Reg 7- HSE Table 3- I.N.)				High Hazard
12.1.1.4	DIO PG 2015/01 JOB 11.2 Reg.9 (direct)	The LPG Storage Vessel – maintenance SETL / MMO / RPC to demonstrate that that the LPG tank has been maintained. FGSR Note Direct Regulation Non-compliance (D.Reg 9 - HSE Table 3- I.N.)				High Hazard
12.1.1.5	DIO GSC, DIO PG 2015/01 JOB 11.2 Reg.9 (direct)	The Bulk LPG Compound SETL /MMO /RPC are responsible for examination & maintenance of the LPG compound from the output of the first stage regulator (not the LPG storage vessel). To be demonstrated - Recorded. FGSR Note Direct Regulation Non-compliance (D.Reg 9 - HSE Table 3- I.N.)				High Hazard

12.1.1.6	UKLPG A COP 1 DIO GSC PG 2015/01, JOB 11.2 Reg.9 (direct)	Electrical certificates (if applicable) to be provided for installation:- a. Identifying type of inspections required (supply, bonding, earthing). b. Periodicity of inspection (not exceed 12 m) FGSR Note Direct Regulation Non-compliance (D.Reg 9 - HSE Table 3- I.N.)				High Hazard
12.1.1.7	UKLPG A COP 1 Para 5.2.(b) Reg.9 (direct)	LPG Storage Vessel >1 Tonne capacity to be permanently bonded to an effective earthing point. (evidence of testing) FGSR Note Direct Regulation Non-compliance (D. Reg 9 - HSE Table 3- I.N.)				
12.1.1.8	UKLPG A CP 1 Para 5.2.(b) Reg.9 (indirect)	LPG Storage Vessel up to 1 Tonne capacity to be bonded to an effective earthing point. Must be demonstrated to be conductive (leg lug, corrosion free, paint free). Indirect D.Reg 9				
12.1.1.9	UKLPG A CP 1 Para 2.6.1 Reg.3 (indirect)	Compound security. Installations individual tank > 4 Tonnes require specific R.A On unsecure sites only. Indirect D.Reg 3				

12.1.2 Siting		GRADING				
		G	R	N/A	Remarks	
Ref						
12.1.2.1	UKLPG CP 1 Para 2.3.1.12 Reg.8 (indirect)	Storage Vessels not to be sited directly under electricity or phone cables. Indirect D.Reg 8				
12.1.2.2	UKLPG A CP 1 Para 2.3.1.12, Para 2.3.1.13 Reg.8 (indirect)	Power cables less than 1.0 KV (including telephone cables) to be 1.5m from storage vessels (from plane drawn vertically down onto ground) Power cables greater than 1.0KV to be 10m from storage vessels (from plane drawn vertically down onto ground) (Identification of Power supply lines to be provided by competent person from site). Indirect D.Reg 8				
12.1.2.3	UK LPGA CP 1 Para 2.3.1.9 Reg.8 (indirect)	Storage Vessels not to be sited directly under overhanging trees. Indirect D.Reg 8				
12.1.2.4	UKLPG A CP 1 Para 2.3.1.9 Reg.8 (indirect)	Storage Vessels not to be sited directly under roof eaves. Indirect D.Reg 8				
12.1.2.5	UKLPG A CP 1 Para 2.3.1.9 Reg.8 (indirect)	Storage Vessels not to be sited where damage from overhead structures may occur (cranes, gantries). Indirect D.Reg 8				

12.1.2.6	UKLPG CP 1 Para 2.5.1.3 Reg.8 (indirect)	No underground services to pass under the foundations of LPG storage vessels. (Records, evidence of support). Indirect D.Reg 8				
12.1.2.7	UKLPG CP 1 Para 2.5.1.2 Reg.8 (indirect)	Topography of ground level, well drained open ventilated areas Note - Where LPG vessels have replaced oil tanks in a bunded facility, ensure that existing bund does not restrict ventilation. Indirect D.Reg 8				
12.1.2.8	UKLPG CP 1 Table 1 Reg.8 (indirect)	Multiple vessel bulk LPG installation-Individual Tank up to 4 Tonnes – minimum separation between vessels 1m. >4 Tonnes 1.5m. Indirect D.Reg 8				
12.1.2.9	UK LPG CP 1 Table 2 Reg.8 (direct)	Separation from hazardous substances. Flammable liquids (<32°C irrespective of quantity). LPG vessel (<=60 Tonnes) 6m from LPG storage vessel to bund wall of Flammable Substance. LPG vessel (>60 Tonnes) 15m from LPG storage vessel to bund wall of Flammable Substance. (Separation distances with nil firewall) FGSR Note Direct Regulation Non-compliance (D.Reg 8- HSE Table 3- I.N.)				High Hazard
12.1.2.10	UK LPG CP 1 Table 2 Reg.8 (direct)	Separation from hazardous substances. Flammable liquids (>32°C <65°C) up to 3000L LPG vessel (<=60 Tonnes) 3m from LPG storage vessel to bund wall of Flammable Substance. LPG vessel (>60 Tonnes) 6m from LPG storage vessel to bund wall of Flammable Substance. (Separation distances with nil firewall) FGSR Note Direct Regulation Non-compliance (Reg 8- HSE Table 3- I.N.)				High Hazard
12.1.2.11	UKLPG CP 1 Table 2 Reg.8 (direct)	Separation from hazardous substances. Flammable liquids (>32°C <65°C) >3000L LPG vessel (<=60 Tonnes) 3m from LPG storage vessel to bund wall of Flammable Substance. and 6m to tank LPG vessel (>60 Tonnes) 15m from LPG storage vessel to bund wall of Flammable Substance. (Separation distances with nil firewall) FGSR Note Direct Regulation Non-compliance (Reg 8- HSE Table 3- I.N.)				High Hazard
12.1.2.12	UKLPG CP 1 Table 3 Reg.8 (direct)	Separation from Liquid Oxygen (LOx) Storage tanks. LPG vessel (0.1 - 1.1 Tonnes) 6m LPG vessel (1.1 – 4.0 Tonnes) 7.5m LPG vessel (4.0 – 60.0 Tonnes) 15m LPG vessel (60.0 – 150.0 Tonnes) 22.5m (Separation distances with nil firewall) FGSR Note Direct Regulation Non-compliance (Reg 8- HSE Table 3- I.N.)				High Hazard

12.1.2.13	UKLPG CP 1 Table 1 Reg.8 (direct)	<p>Separation distance for:</p> <p>a. Buildings / boundary – as sep dist</p> <p>b. Fixed sources of ignition – as sep dist</p> <p>c. Fixed electrical generators – as sep dist</p> <p>d. Powered vehicles not under control of site occupier - as sep dist</p> <p>e. Powered vehicles under control of site occupier* combustible material*</p> <p>f. Weeds long grass deciduous shrubs*:</p> <p>* <2 Tonnes as Sep Dist</p> <p>* >2 Tonnes 6m (UKLPG CP 1, 2.3.1.10)</p> <p>Single LPG vessel (150 -500L) (0.05 – 0.25 Tonnes) } 2.5m (Grp of Tanks up to 0.8 Tonnes) }</p> <p>Single LPG vessel (501-2500L) (0.25 – 1.1 Tonnes) } 3m (Grp of Tanks up to 3.5 Tonnes) }</p> <p>Single LPG vessel (2501-9000L) (1.1- 4.0 Tonnes) } 7.5m (Grp of Tanks up to 12.5 Tonnes) }</p> <p>Single LPG vessel (9001- 135kL)(4.0 - 60 Tonnes) } 15m (Grp of Tanks up to 200 Tonnes) }</p> <p>FGSR Note Direct Regulation Non-compliance (D.Reg 8- HSE Table)</p>				High Hazard
12.1.2.14	JSP 862 Reg.8 (indirect)	<p>Is LPG installation located within vicinity of other dangerous goods storage? (e.g. explosive sites)</p> <p>If so; has site owner referred to other DG standard to identify safety distance? (other domains e.g. JSP 862)</p> <p>Indirect D.Reg 8</p>				
12.1.2.15	UKLPG CP 1 Para 2.3.1.6 Air Publications Reg.8 (indirect)	<p>Storage Vessels to be away from aircraft taxiways</p> <p>If so, has site owner referred to safety distances mandated by aircraft type?</p> <p>Indirect D.Reg 8</p>				
12.1.2.16	UKLPG CP 1 Para 2.5.2.3 Reg.8 (indirect)	<p>Presence of evaporation area. (gravelled area can encompass whole of site)</p> <p>Indirect D.Reg 8</p>				
12.1.2.17	UKLPG CP 1 Para 2.5.2.3 Reg.8 (indirect)	<p>Storage vessels – no presence of open pits / hollows / round depressions within safety distances</p> <p>Indirect D.Reg 8</p>				
12.1.2.18	UKLPG CP 1 Para 2.5.1.3 Reg.8 (direct)	<p>No open drains, gullies or ducts shall be located within the LPG storage vessel safety distances unless orifices are protected from LPG vapours</p> <p>FGSR Note Direct Regulation Non-compliance (Reg 8- HSE Table 3- I.N.)</p>				High Hazard

12.1.3 Operation & Function			GRADING			
			G	R	N/A	Remarks
Ref	DIO IN 03/13 DIO SA 01/12 HSG INDG 428 Reg.9 (indirect)	<p>Underground LPG pipework</p> <p>SETL /MMO / RPC are responsible for examination & maintenance of the LPG pipework from the first stage regulator (not the LPG storage vessel) including underground pipework downstream. To be demonstrated - Recorded. (Strategy of steel underground pipelines replaced, 30m of buildings)</p> <p>Indirect D.Reg 9</p>				

12.1.3.2	UKLPG CP 1 Para 2.6.1 Reg.8 (direct)	Compound security. 1.8m fence with adequate through ventilation (If the LPG Installation has no Security fence, and no specific risk assessment has been produced to mitigate this risk; a "Red" grade must be awarded for this question). If a specific Risk assessment has been produced; which mitigates the lack of security fence; this question can be subsequently be graded as "Green" If there is no security fence , answer the following mitigation question below FGSR Note Direct Regulation Non-compliance (D.Reg 8- HSE Table 3- I.N.)				High Hazard
12.1.3.3	UKLPG CP 1 Para 2.6.3; 2.6.4 Reg.3 (direct)	Compound security. 1.8m fence- Mitigation A specific Risk Assessment, which has been updated within the previous 12 months, has been produced to mitigate the increased risk by having no security fence If the specific Risk Assessment mitigates the justification of no security fence by other mechanisms of control; subsequent assessments can be assessed as "Green" FGSR Note Direct Regulation Non-compliance (D.Reg 3- HSE Table 3- I.N.)				High Hazard
12.1.3.4	UKLPG CP 1 Para 2.6.3 Reg.8 (direct)	For LPG compounds without security fence Access to Valves and fittings on the LPG tank (other than Px relief valve) shall be denied e.g. Locked covers fitted. FGSR Note Direct Regulation Non-compliance (D.Reg 8- HSE Table 3- I.N.)				High Hazard
12.1.3.5	UKLPG CP 1 Para 2.6.1 Ref Reform (Fire Safety) Order Pt 2 Art 14 (2) (f) Reg.4 (direct)	Compound security. 2 x outward opening gates. Emergency exit must not be so locked or fastened that they cannot be easily & immediately opened by any person who may require to use them in an emergency. FGSR Note Direct Regulation Non-compliance (D.Reg 4 - HSE Table 3- I.N.) Compounds fitted with padlocks – Main entrance unlocked, rear escape locked -Immediate PN				High Hazard
12.1.3.6	UKLPG CP 1 Para 2.6.1 Reg.8 (direct)	Compound security. Distance from storage vessel to fence 1.5m in attended 24/7 public / secure areas. FGSR Note Direct Regulation Non-compliance (D.Reg 8 - HSE Table 3- I.N.)				High Hazard
12.1.3.7	UKLPG COP 1 Para 2.6.4 Reg.8 (direct)	Compound security. Distance from storage vessel to fence in unsecure (remote / unattended sites). 3.0 m FGSR Note Direct Regulation Non-compliance (D.Reg 8 - HSE Table 3- I.N.)				
12.1.3.8	UKLPG CP 1 Para 3.1.5.9 Reg.8 (indirect)	LPG storage vessels should be properly installed on firm foundations & supported on concrete, masonry or structural steel supports. These supports should be so constructed or protected to ensure their load bearing capacity is maintained for same period as fire resistance for vessel. Recorded. Indirect D.Reg 8				

12.1.3.9	UKLPG CP 1 Para 2.5.1.1 Reg.8 (indirect)	Ground beneath vessel to be concrete or compacted & arranged to prevent pooling of spilled product. (Does not have to be the whole of the surface areas of the installation- recommend stone chippings out to end of separation distance) Indirect D.Reg 8				
12.1.3.10	UKLPG COP 1 Para 2.6.4 Reg.8 (direct)	Storage Vessel protection / vehicles – appropriate security from vehicle impact (Bollards, Armco Barrier) FGSR Note Direct Regulation Non-compliance (D.Reg 8 - HSE Table 3- I.N.)				High Hazard
12.1.3.11	UKLPG CP 1 Para 3.1.5.4 Reg.8 (indirect)	LPG vessels >2.2 Tonnes (or where piers are used as part of vessel support) Vessel to be supported at one end only. Secured end where principal liquid & vapour lines are attached. Indirect D.Reg 8				
12.1.3.12	UKLPG CP 1 Para 3.1.4 Reg.8 (direct)	LPG Storage Vessel shall be provided with visible, legible, & indelible markings: (a) Px vessel design code (b) Manuf name (c) Vessel Serial No (d) Max / Min design Px (bar) (e) Max / Min operating Temp (f) Vessel Date of Manuf (g) Water capacity in Litres (h) Date of test, px applied, inspection authorities identification (i) Provision for subsequent test marking Direct Regulation Non-compliance (D.Reg 8 - HSE Table 3- I.N.)				

12.1.4 Fire, Health & Safety		GRADING				
		G	R	N/A	Remarks	
Ref						
12.1.4.1	UKLPG CP 1 Table 8 Reg.4 (direct)	Fire fighting extinguishers (combination of 9 kg dry powder, 9L water, 19 mm hose dependant on tank capacity- as well as fire fighting water supply). <2200L 19 mm and 2 x9 kg dry powder, or 4 x9 kg dry powder, or 2 x 9 kg dry powder and 2 x 9L water. >2200L 19 mm and 2 x9 kg dry powder FGSR Note Direct Regulation Non-compliance (D.Reg 4 - HSE Table 3- I.N.)				High Hazard

<p>12.1.4.2</p>	<p>JSP 426 Reg.4 (indirect)</p>	<p>An installation specific fire plan is to be available at the installation. It should include details of :</p> <ul style="list-style-type: none"> • Fire detection and alarm systems • Water and other chemical firefighting agents • Firefighting equipment • Emergency shut down procedures • Emergency evacuation procedures & assembly points • Staff fire training • Duties of persons nominated in the plan • Arrangements for testing and updating the plan. <p>Note. Only required if operators regularly access this site as part of their work activity – e.g DFRMO – Fire training rigs, Dog compounds- waste incinerators. If not accessed by operators; then ensure section 1 (1.3.1) has included this compound as part of the Fire RA.</p> <p>Indirect D.Reg 4</p>				
<p>12.1.4.3</p>	<p>JSP 426 Reg.4 (indirect)</p>	<p>Are fire posters and emergency evacuation posters available, in good condition and up-to-date? Located at all entry points.</p> <p>Indirect D.Reg 4</p> 				
<p>12.1.4.4</p>	<p>UKLPG CP 1 Para 2.7 Reg.4 (indirect)</p>	<p>Smoking. No smoking is permitted within 3 m of the storage facility. Signage.</p> <p>Indirect D.Reg 4</p>				
<p>12.1.4.5</p>	<p>UKLPG CP 1 Para 2.6.2 Reg.9 (direct)</p>	<p>All combustible material removed from within LPG compound</p> <p>Chemical Weed Killers (e.g. sodium chlorate oxidising agent Prohibited) Grass cutting within LPG Hazardous area under permit to Work</p> <p>FGSR Note Direct Regulation Non-compliance (D.Reg 9- HSE Table 3- I.N.)</p>				<p>High Hazard</p>
<p>12.1.4.6</p>	<p>UKLPG CP 1 Para 2.3.1.3 - 2.3.1.10 Reg.9 (indirect)</p>	<p>Areas outside the LPG compound should be kept free from a build-up of combustible materials (e.g. grass cuttings, leaves)</p> <p>Weeds long grass deciduous shrubs <2 Tonnes as Sep Dist >2 Tonnes 6m UKLPG CoP 1, 2.3.1.10 & 2.6.2</p> <p>- recommend stone chippings out to edge of separation distance)</p> <p>FGSR Note Direct Regulation Non-compliance (Reg 9 - HSE Table 3- I.N.)</p>				<p>High Hazard</p>
<p>12.1.4.7</p>	<p>UKLPG CP 1 Para 7.3.2 App F Reg.1 (indirect)</p>	<p>Only approved PPE compatible for use with LPG to be worn.</p> <p>Indirect D.Reg 1</p>				
<p>12.1.4.8</p>	<p>UKLPG CP 1 Para 7.1.4 Reg.4 (indirect)</p>	<p>Suppliers emergency notice on Storage Vessel (24 Hr emergency Tel No).</p> <p>Indirect D.Reg 4</p>				
<p>12.1.4.9</p>	<p>UKLPG CP 1 Para 2.7 Reg.4 (indirect)</p>	<p>Each tank to be labelled with product e.g. PROPANE BUTANE</p> <p>Indirect D.Reg 4</p>				

12.1.4.10	H&S Safety Signs & Signals Regs) 1996 UKLPG CP 1 Para 2.7 Reg.4 (indirect)	Adequate signage including safety signs, warning notices, around the boundaries of the storage area. To be clearly visible. Between 1.5-1.7m off ground. NO SMOKING] NO NAKED LIGHTS NO STORAGE OF OIL GREASE OR COMBUSTIBLE MATERIALS AUTHORISED PERSONS ONLY NO MOBILE PHONES NO STEEL TIPPED SHOES BOOTS Flammable Gas transport diamond LIQUEFIED PETROLEUM GAS or LPG. Indirect D.Reg 4				
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12.1.5 Road Tanker Delivery		GRADING				
		G	R	N/A	Remarks	
<i>Process carried out by Contractor</i>						
Ref						
12.1.5.1	UKLPG CP 1 Para 7.3.3.5 Reg.8 (direct)	Road tanker –safe unrestricted access/ egress FGSR Note Direct Regulation Non-compliance (D.Reg 8- HSE Table 3- I.N.)				High Hazard
12.1.5.2	UKLPG CP 1 Para 7.3.3.4 Reg.8 (direct)	Road tanker delivery area – level ground / slight chamber to direct spillage away from tanker FGSR Note Direct Regulation Non-compliance (D.Reg 8- HSE Table 3- I.N.)				
12.1.5.3	UKLPG CP 1 Para 7.3.3.5 Reg.8 (direct)	Road Tanker delivery area should be separated from other traffic movements (specific lay by or road barriers to prevent pedestrian / vehicular movement whilst LPG delivery taking place) FGSR Note Direct Regulation Non-compliance (D.Reg 8- HSE Table 3- I.N.)				
12.1.5.4	UKLPG CP 1 Para 7.3.3.9 Reg.8 (indirect)	Road Tanker drive- away protection / prevention devices (signage) to be in place. Demonstrated either by:- a. Contractor – designed vehicle. b. Or- signage at delivery point To ensure hazard cannot occur if the vehicle is moved before hose is disconnected Indirect D.Reg 8				

12.1.6 LPG Issue / Dispense Point (If applicable)		GRADING				
		G	R	N/A	Remarks	
Ref						
12.1.6.1	UKLPG A COP 20 S.8.3 Reg.7 (direct)	Only nominated personnel who have received appropriate training shall be authorised to dispense LPG (C of C) FGSR Note Direct Regulation Non-compliance (D.Reg 7)				
12.1.6.2	UKLPG A COP 20 S.8.7.4 Reg.4 (direct)	Emergency plans- specific for dispensing (addition to Section 1). Does the dispense point have emergency plans that include: • Emergency shutdown procedures, (location / operation of alarms, electrical isolation, fire extinguishers). • Customer drives away whilst still connected. • If there is excess loss of product on disconnection • If the dispenser is run into or damaged • If a user receives a cold burn FGSR Note Direct Regulation Non-compliance (D.Reg 4)				

12.1.6.3	UKLPG A COP 20 S.8.1 Reg.10 (direct)	Are current, regularly reviewed Standard Operating Procedures (SOPs) available for Operators of dispensing equipment. Written procedures to include: <ul style="list-style-type: none"> LPG dispensing operating procedures. End of day shutdown procedures, (Electrical isolation, security) Direct Regulation Non-compliance (D.Reg 10)				
12.1.6.4	UKLPG A COP 20 Table 1 & S2.6 Reg.8 (direct)	Separation: Dispensing Hose Anchor Point <ul style="list-style-type: none"> 4.1 m from site boundary, buildings / fixed ignition sources. 0.5 m from LPG vessel. 1.0 m Bulk LPG vessel filling point 9.0 m from any living accommodation / domestic premises hosting vulnerable populations Direct Regulation Non-compliance (D.Reg 8)				
12.1.6.5	APEA Blue Book 7.6.4 Reg.8 (indirect)	Dispenser operated via deadmans button. Indirect D.Reg 8				
12.1.6.6	APEA Blue Book 7.6.4 Reg.8 (indirect)	Dispenser hose assy fitted with safe break connection. Indirect D.Reg 8				
12.1.6.7	APEA Blue Book 7.6.4 Reg.8 (indirect)	Dispenser fitted with sufficient valves for safe isolation testing & maintenance, with suitable sized return to Tank vessel for dispenser testing. Indirect D.Reg 8				
12.1.6.8	UKLPG A COP 20 Table 1 & S3.5.3e Reg.8 (indirect)	Appropriate security features to prevent unauthorised filling / tampering of the dispenser / pumps. Indirect D.Reg 8				
12.1.6.9	APEA Blue Book 7.6.4 Reg.8 (indirect)	Dispenser assy to be protected against vehicular damage (bollards Armco) Direct Regulation Non-compliance (D.Reg 8)				
12.1.6.10	UKLPG A COP 20 Table 1 & S3.5.4 Reg.8 (indirect)	Where not practicable to protect dispenser against impact; an automatic system should be installed to minimise escape of LPG in the event of the dispenser being damaged (e.g. suitable excess flow valve / shear valve). Indirect D.Reg 8				
12.1.6.11	UKLPG A COP 20 Table 1 & S3.6.1 Reg.8 (indirect)	Dispenser Hose to BS EN1762 Spec (Lifed) Conductive 0.75 Ω / m Min working Px 25 bar. Indirect D.Reg 8				
12.1.6.12	UKLPG A COP 20 Table 1 & S3.6.3 Reg.8 (indirect)	Hose length to be max 3.6 m. Indirect D.Reg 8				

12.1.6.13	UKLPG A COP 20 Table 1 & S3.6.4 Reg.8 (indirect)	Hose to be only 1 continuous length- unless an intermediate breakaway coupling is fitted. Indirect D.Reg 8				
12.1.6.14	UKLPG A COP 20 Table 1 & S5.6.1 Reg.8 (indirect)	In addition to site main isolator controlling whole installation (if applicable), an isolation switch shall be provided for the LPG dispense installation. This isolation switch shall be so positioned as to be readily visible and be within easy reach for quick operation. Indirect D.Reg 8				
12.1.6.15	UKLPG A COP 20 Table 1 & S5.6.2 Reg.4 (indirect)	Emergency switch shall be clearly labelled "LPG PUMP - SWITCH OFF HERE" Indirect D.Reg 4				
12.1.6.16	UKLPG A COP 20 Table 1 & S6.3.2 Reg.4 (indirect)	Notice at the Dispense Point labelled LIQUID PETROLEUM GAS HIGHLY FLAMMABLE SWITCH OFF ENGINE APPLY HANDBRAKE NO SMOKING - NO NAKED FLAMES SWITCH OFF MOBILE PHONES. Indirect D.Reg 4				
12.1.6.17	UKLPG A COP 20 Table 1 & S9 Reg.9 (direct)	Specific maintenance & testing procedures for dispense points including: <ul style="list-style-type: none"> • Base & Steel work • Vessel signs • Vessel fittings • Filters • Pumps • Hoses including breakaway coupling • Electrical continuity from hose coupling to vessel to earth/ bonding connection. Before use checks by operator. Periodic tests / maintenance annually / iaw WSE FGSR Note Regulation Non-compliance (Reg 9.)				

13. Feedback

Please provide any feedback as required:

13 Feedback		GRADING		
		G	R	N/A
<i>Please provide any feedback as required:</i>				
Ref				
13.1		Please provide comment as required		