



**Ministry
of Defence**

**HEALTH, SAFETY AND ENVIRONMENTAL PROTECTION
ANNUAL ASSURANCE REPORT
2013/14**

CONTENTS

	Page
INTRODUCTION	2
DEPARTMENTAL PERFORMANCE	2
SAFETY-RELATED FATALITIES, MAJOR INJURIES AND ILLNESSES STATISTICS.	3
PAN – DEPARTMENTAL ISSUES	4-7
REGULATORY HEALTH ISSUES	7
CONCLUSION	7-8
APPENDIX 1 series: TLB/TFA/OPA Self-Assessments	9-43
1.1: Navy Command	
1.2: Army Command	
1.3: Air Command	
1.4: Joint Forces Command (JFC)	
1.5: Defence Equipment and Support (DE&S)	
1.6: Defence Infrastructure Organisation (DIO)	
1.7: Head Office and Corporate Services (HOCS)	
1.8: Defence Science and Technology Laboratory (DSTL)	
1.9: Defence Support Group (DSG)	
1.10: UK Hydrographic Office (UKHO)	
1.11: Oil and Pipelines Agency (OPA)	
APPENDIX 2 series: Regulators Reports	44-69
2.1: Military Aviation Authority	
2.2: Defence Nuclear Safety Regulator	
2.3: Defence Maritime Regulator	
2.4: Defence Ordnance, Munitions and Explosives Safety Regulator	
2.5: Defence Land Systems Safety Regulator	
2.6: Defence Movement and Transport Safety Regulator	
2.7: Defence Fuel and Gas Safety Regulator	
2.8: Defence Fire Safety Regulator	
2.9: Office of Nuclear Regulation	
2.10: Control of Major Accidents & Hazards Competent Authority (non-MOD)	
APPENDIX 3: Details of Defence Safety- Related Fatalities	70

INTRODUCTION

1. This Defence Health, Safety and Environmental Protection (HS&EP) Assurance report covers the period April 2013 - March 2014. It provides a summary of the Department's HS&EP performance, assessing compliance with the Secretary of State's HS&EP Policy Statement.
2. The report is based on evidence from self-assessments by the Defence Top Level Budget Holders (TLBs) and Trading Fund Agencies (TFAs) as well as analysis of Defence Statistics on Fatalities, Major Accidents and Illnesses. It also takes into account the findings of the DSEA Corporate Policy Assurance (CPA) high-level audits of TLBs, and reports from the regulators outlining a general statement of compliance with domain regulatory requirements. For the first time this year, the report includes the Oils and Pipeline Agency (OPA), a public corporation of the Ministry of Defence.
3. Executive summaries of the TLB/TFA/OPA assessments and of the regulators' reports are in Appendices 1 and 2 respectively. Details of Safety-Related Fatalities are at Appendix 3.

PERFORMANCE AGAINST DEFENCE HS&EP TARGETS

4. Targets are set out in HS&EP policy (JSP815) and in support of the Defence Plan. TLBs and TFAs were required, as originally set out in DP12 and reconfirmed in subsequent DESC meetings, to achieve level 4¹, on a maturity model on a range of 1-6 by April 2014. The table below outlines TLBs' and TFAs' self-assessment of performance against the Department's HS&EP targets 2-6². Details of performance under target 6, "Compliance" can be found in the individual self-assessments at Appendix 1.

Defence HS&EP Targets	Navy Cmd	Army Cmd	Air Cmd	JFC	DE&S	DIO	HOCS	DSTL	DSG	UKHO
2 A Learning Organisation	3	5	4	4	4	3	4	3	4	6
3 Leadership & Culture	4	4	4	4	4	3	4	4	4	4
4 Competence	3-4	3	4	4	3	3	3-5	4	4	4
5 Understanding and Managing Hazards & Risks	3-4	5	4	4	3	3	3-5	4	4	4
6 Compliance	3-4	3-5	3-4	3-4	3-4	2-3	3-4	3-4	4	4-6

5. In general, TLBs and TFAs have assessed their performance as being between levels 3-5; the regulators broadly concur with this conclusion. Although Departmental performance has continued to improve from last year's assessments, TLBs and regulators both judge that there have been a number of shortfalls against the target to achieve level 4 by April 2014. This is manifested mainly by the high level of extant enforcement action, shortfalls in maintenance, particularly of fuel infrastructure, shortfalls in Suitably Qualified and Experienced Persons (SQEP), a lack of up to date safety cases, and the results of both self-assurance audits and regulatory inspections.

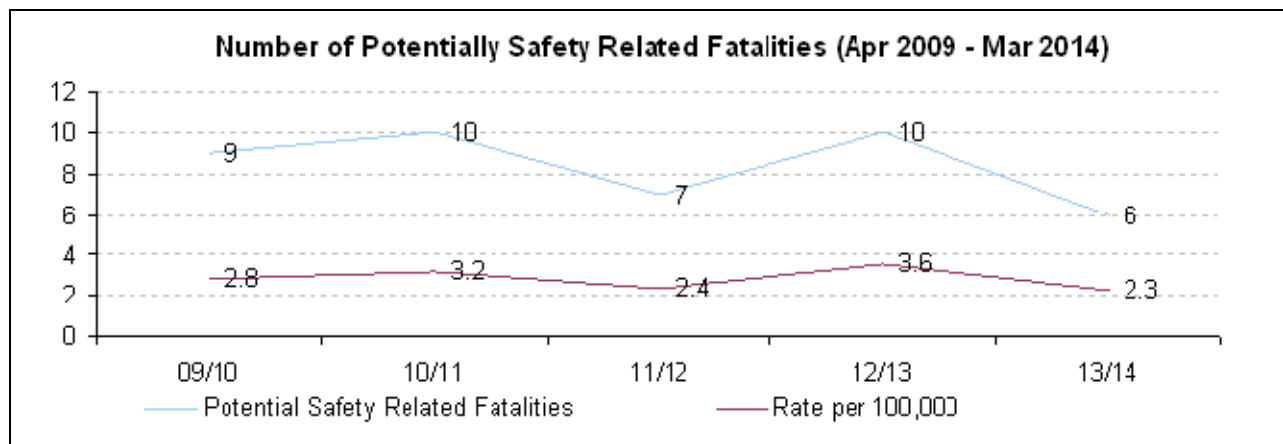
¹ Defined as compliant with legislation and policy and broadly equating to Substantial Assurance in the previous measurement system.

² Target 1: Minimise work-related, non-combat fatalities, major injuries, ill health and adverse effects on the environment. Paras 6-9 of the report provide details of performance against this target.

SAFETY-RELATED FATALITIES, MAJOR INJURIES AND ILLNESSES

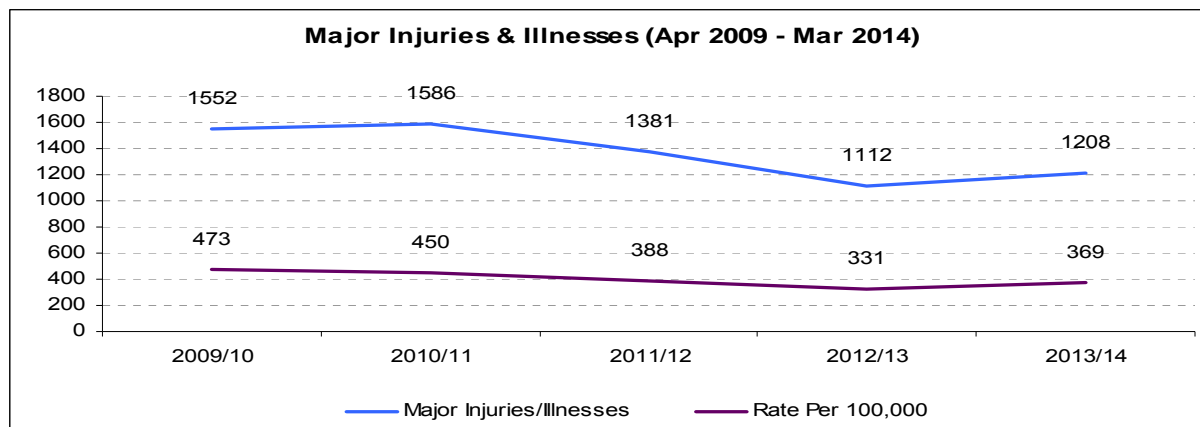
6. There were a total of 6 potentially safety-related fatalities in the period covered by this report, 1 April 2013 – 31 March 2014. This compares to 10 potentially safety-related fatalities in FY 2012/13, and 7 safety-related fatalities for FY 2011/12. Appendix 3 contains the detail.

7. The graph below presents, by FY, both the actual number, and the rates per 100,000, of potentially safety-related deaths during the period April 2008 – March 2014.



Source: DSEA & Defence Statistics ³

8. The number of major injuries / illnesses (excluding fatalities) is shown below.



Source: Defence Statistics, AINC, NSINC, AIRS, DINC, DIOINC, JFC/HOCS, IRIS, Trading funds. ⁴

9. In the period April 2013 - March 2014 there were 1,208 major injuries and illnesses reported; this compares to 1,112 in the previous equivalent period and is a 9% increase. The corresponding annual rate of major injuries and illnesses increased by 11%.

³ Core numbers (in blue) include all on duty safety-related fatalities and all safety-related fatalities occurring on MOD property, or resulting from MOD activities. Excludes battlefield casualties & off duty and non-safety related Transport Accidents. Crude rates (in purple) for population at risk, which is UK Regular Armed Forces, Reservists and MOD Civilians.

⁴ Core numbers (in blue) calculated as follows; excludes battlefield injuries, off-duty Transport Accidents, Cadets, includes UK Regular Armed Forces, Reservists. MOD Civilians, contractors and members of the public. Crude rates (in purple) as per footnote 3, but excludes Reservists before 2012/13. Rates are calculated using strength data for regular, regular reserves, sponsored reserves, volunteer reserves and MOD Civilians. The reserves strengths used to calculate these rates before April 2012 are estimates and are rounded to the nearest 1,000.

PAN-DEPARTMENTAL ISSUES

10. Specific TLB/TFA/OPA issues are set out in Appendix 1. Key issues across Defence are set out below, outlining progress against those carried over from FY 2012/13 as well as new issues identified this year.

CPA audit findings

11. During the period September 2013 to February 2014, CPA undertook the first series of high-level audits of TLBs in order to provide independent assurance on the adequacy and effectiveness of their respective arrangements for the management of HS&EP. The audits focussed on assessing compliance with the requirements of the Secretary of State's HS&EP Policy Statement and the amplifying policy (JSP815).

12. TLBs were found to be largely compliant against the requirements. However, there were a number of common themes identified, which reinforce some of the issues reported further on in the report:

- a. Omission of specific reference in most TLBs' arrangements to undertaking assessment of HS&EP implications of organisational change;
- b. Shortage of SQEP in some of the more specialist functions within HS&EP such as Ordnance, Munitions and Explosives (OME) and high voltage systems;
- c. Concerns over roles and responsibilities between DIO and TLBs, with specific reference to fuel infrastructure;
- d. Need for further clarification of Duty Holder roles and responsibilities across TLB interfaces, potentially complicated by the variation in TLB Duty Holder construct;
- e. Current TLB processes for determining Maturity levels varied and were often based on limited independent scrutiny; however all TLBs were developing more robust processes for 2014/15;
- f. The need for a more flexible and value added approach to auditing by focusing on risk-based audits rather than solely on auditing HS&EP management systems.

Duty Holding

13. All TLBs/TFAs have developed their Duty Holder constructs in compliance with the recently issued (November 2013) principles in JSP815, including clarifying and documenting Duty Holder responsibilities at each level (Senior, Operating, and Delivery). Audits have, however, demonstrated that there is variable maturity in their implementation. Aviation Duty Holders (in all Front Line Commands) have been in place for several years, are very clear on roles and responsibilities and have developed robust and extensive support mechanisms to provide advice and assurance. Duty Holder arrangements in the non-aviation areas of the Army were, however, only formally issued in February 2014. There are also some differences in application, for example some TLBs include environmental risks as part of DH responsibilities, and work is continuing on issues of coherence across TLB boundaries.

Progress on issues from 2012/13 report

14. [Provision of Suitably Qualified and Experienced Persons](#) remains the top Departmental safety concern. Most TLBs/TFAs report shortages of SQEP and concerns about fragility. The majority of regulators share this concern. Examples from the TLBs' reports include: Navy Command report a SQEP shortfall in submarine ODH area; in Air Command gaps are being carried in other functions in order to ensure that safety-implicated posts are staffed; DIO reports a specific shortfall in engineering and construction specialists, and the percentage of vacant safety-critical posts in DE&S has increased slightly with some evidence accruing that rewards may be insufficient to retain and attract the number and quality of people required. These shortfalls have potential detriment to quality and timeliness of critical HS&EP advice and could result in failure to meet regulatory requirements; the backlog of safety cases (para 17) has its roots in a lack of SQEP. There has been progress in specific areas, for example an enhanced civilian nuclear recruitment and retention allowance. Further mitigations for the resulting risks include the use of retention initiatives (particularly in the Armed Forces), better identification of staffing and SQEP requirements, enhanced/focussed training in specific areas and prioritisation of safety-implicated posts in, often lengthy, recruitment processes; these all take time to produce the desired effect. TLBs/TFAs have broadly assessed themselves at level 3-4 on targets relating to SQEP, with commentary reconciling the apparent contradiction by implying that good safety culture enables performance at this level. Looking forward, HR freedoms for DE&S and the insertion of business partner skills in both DE&S and DIO have a positive potential for these TLBs' levels of safety competence, but the impact of a fragmenting internal market on safety SQEP in other parts of MOD, including the regulators, needs to be watched carefully. More widely, a reviving UK economy, and a national shortage of engineers provide a backdrop which justifies this issue continuing to require concerted attention at all levels in the Department.

15. [Infrastructure and Division of Responsibilities](#) remains a key concern for a number of TLBs. Last year, in response to the concerns raised, DIO produced an operating framework describing the relationship between the TLB user, DIO and industry partners as well as the assurance mechanisms in detail. Despite this there remain ongoing concerns from TLBs on roles and responsibilities, including concerns that TLBs do not have the levers to deliver infrastructure-related HS&EP without DIO support. DIO have issued further guidance on their responsibilities as a Duty Holder facing organisation and their interface with TLBs. They have developed principles for all Duty Holder facing roles with specific arrangements for how this would work for an infrastructure interface, centred on implementation of a formal mechanism to enable Duty Holders to appoint Risk Managers responsible for undertaking agreed actions to manage or mitigate a particular risk. There is also a specific new process agreed by the Defence Safety and Environment Committee covering the maintenance of the fuel infrastructure which inspections last year revealed to be poorly executed. The planned improvements within DIO to ensure compliance include a new evidence-based auditable system to record and track the execution of fuel-related inspection activity and completion of all remedial works. Progress on implementation of the new arrangements will also need to be addressed through an effective communication strategy with Duty Holders, and continued monthly reports to the Defence Board.

16. [Dangerous Substances and Explosives Atmosphere Regulations \(DSEAR\)](#). There has been good progress towards DSEAR compliance since the previous report. Of the 449 Defence UK sites identified by 1 April 2014, 96% have completed Stage 1 DSEAR assessments, which determines whether a site requires a full Risk Assessment and Hazardous Area Classification (Stage 2). Of the 297 sites that were identified as requiring a Stage 2 risk assessment, 88% have been completed. Targets to achieve 100% of Stage 2 by 31 March 2014 have been missed. Based on assessments, a programme of

infrastructure improvements is being defined, with a new target to complete remedial work across all sites by March 2015. However, delays in completing Stage 2 and delivering remedial requirements to DIO Service Delivery Managers threaten achievement of this target.

17. [Safety Cases](#). For high consequence activities these set out the risk assessment and justify that the activity is safe to conduct. There has been some progress made in ensuring the standards of Safety Cases, in particular with clarity over ownership. In response to newly issued policy (JSP 815) there has been continued progress to move arrangements for owning and managing safety cases to TLBs from DE&S. However, there is still a significant issue with a large backlog of land systems safety cases requiring joint sign-off between DE&S and the Army, and a lack of live platform and equipment safety cases in some maritime ODH areas.

18. [Return of Dangerous Goods from Afghanistan](#). Since the previous report there have been further investigations by the Defence Movement and Transport Safety Regulator and JFC into the extent of the issue. These have shown that responsibility for packing and consignment of loads are clear between TLBs, but there have been cases of poor supervision/execution and consequent non-compliance with legislation. JFC and Service Commands are continuing to work together to resolve these issues, including investigating how to establish responsibility and accountability for ensuring cargo containing dangerous goods is correctly identified, labelled and documented. Army Command has also issued further direction to the Chain of Command and increased the number of all Arms Dangerous Goods Consignors. Management of lithium batteries in particular remains a high priority.

19. [Change of Status for DE&S](#) was highlighted as an issue last year in relation to its potential to become a Government Owned Contractor Operated organisation (GOCO); this has not been pursued, but instead DE&S is a Bespoke Central Government Trading Entity. The potential effect on HS&EP performance of this different change of status raises fewer issues than previously as all staff are to remain crown servants and change is to take place more gradually. More generally Defence has recognised a number of significant organisational changes (see para 21 below) and the DE&S change is being considered amongst them.

Issues emerging in 2013/14.

20. [Fuel Infrastructure](#). (See also paragraph 15 and 16 above). There is widespread evidence from Defence and statutory regulators that the fuel infrastructure is not adequately maintained or managed. There are failings in the self-inspection regime and a lack of maintenance and investment over a significant period has resulted in facilities that are often not fit for safe use. The Defence Fuels and Gases Safety Regulator (FGSR) has issued 64 Enforcement Notices of which 46 (72%) were infrastructure related. The statutory regulator also issued 6 Enforcement Notices on the OPA. Whilst it is to be hoped that a combination of the remedial actions noted in paras 15 and 16, together with a renewed Departmental focus on fuel via the Strategic Fuels Authority, and eventual investment in major storage sites will correct the situation, the risks remain extant at present.

21. [Organisational Change](#) has been recognised as a root cause in many historic accidents. The Secretary of State's HS&EP Policy Statement requires Defence to demonstrate no detriment to HS&EP performance resulting from organisational change. Transformation remains a significant feature of Departmental business, and hence a

safety risk. New governance arrangements for significant Departmental change programmes have been agreed by the Defence Environment & Safety Committee (DESC) to ensure the progressive consideration of the potential impact of organisational changes. TLBs/TFAs leading on strategic organisational changes have been tasked with submitting iterative Organisational Safety Assessments (OSA) to the DESC for consideration. Eight change programmes⁵ have been identified as requiring OSAs to be considered by DESC. The arrangements should make a substantial contribution to considering the impact of change and demonstrating no detriment, but they still need to mature and to become embedded in TLB's Safety Management and Departmental senior scrutiny arrangements. The evolution of Defence towards a devolved delivery model with increasing amounts of defence business managed by privatised or bespoke entities at arms length from Departmental control will generate fresh challenges, both for Duty Holding and regulation, which future OSA's need to capture.

REGULATORY HEALTH ISSUES

22. The Defence regulators have focussed much activity on revision and reissuing of their regulatory rule sets, in dialogue with TLB stakeholders. This process will continue to include alignment with the new Defence Directives framework. Inspection and audit activity is providing useful reinforcement to TLB's own assurance activity. Regulators are also actively providing advice on compliance, in line with the Hampton regulatory principles. Anxiety about resource (especially SQEP personnel) is reported by a number of Defence Regulators, notably Defence Nuclear Safety regulator (DNSR), Defence Maritime regulator (DMR) and Defence Ordnance, Munitions and Explosives Safety regulator (DOSR). This is due in part to their organisations lacking the requisite number of posts and in part to the same fragility of SQEP that affects Defence as a whole. The business case to expand the DMR to a full operating capability with a ship inspectorate has recently been approved by HOCS. Organisational change is also raised as a concern by a number of regulators due to their dependencies on areas such as DE&S and DIO for technical support.

CONCLUSION

23. At a policy level, HS&EP in Defence has moved significantly forward in 2013-14 with a refreshed Statement from the Secretary of State, amplification in a new JSP815, adoption of Duty Holder constructs across all TLBs / TFAs in their full range of activities and improved discipline in considering organisational change. Further clarity will result from the appointment of the Defence HS&EP Authority (from April 2014) in conformance with revised Departmental governance arrangements. The empowerment of independent Defence regulators, brought about in recent years in response to the Nimrod Review (Haddon-Cave), and re-issuing of their regulations has assisted performance. In general TLBs and TFAs are conducting their activities safely and protecting people and the environment satisfactorily; given the nature, breadth and complexity of their activities, this is creditable and demonstrates an appropriate commitment of financial and human resources over what has been a difficult period for both. However, as is outlined in this report, the progress towards level 4 compliance expected last year has not universally materialised. Specific areas will continue to require attention to achieve level 4 in 2014/15. There can be no relaxation in attention to HS&EP matters while Defence

⁵ DE&S change of status; DIO Strategic partnering; Naval Base transfer; Return of Oil-Fuel Depots to MOD; DSG outsourcing; DFRMO Review and Transformation; Creation of Defence Safety Authority; LCS Outsourcing.

continues to transform and while there remain anxieties about retention and replacement of competent staff.

APPENDICES SERIES 1, 2 and 3

The following appendices 1 and 2 contain the executive summaries extracted from the TLB/TFA self-assessments and the regulators reports.

At the end of each TLB/TFA executive summary a table has been inserted detailing the individual TLB/TFA self-assessment against the 11 elements of HS&EP target 6: Compliance (para 4 of the main report refers).

Appendix 3 gives details of the Defence safety-related fatalities referenced in para 6 of the main report.

APPENDIX 1.1: NAVY COMMAND SELF-ASSESSMENT

1. There has been considerable positive change in the safety and environmental management arrangements during the 2013/14 reporting year with significant improvements being achieved across a spectrum of activities.
2. **Performance against HS&EP Targets.** The assessment of maturity across all areas of Duty Holding responsibility has shown encouraging levels of progress but overall the TLB cannot report that it has achieved the required Level 4 maturity, although the reasons for this are understood and being addressed.
3. **Achievements/Successes.** Improvements in the understanding of the TLB Duty Holding structure; clear senior leadership by the Navy Safety Improvement Programme Board and 3* Navy Command Operating Board specifically for safety; verification by DSEA of the comprehensiveness of the TLB's Safety and Environment Management System (SEMS); a successful conclusion of the NSIP change programme with the creation of the Navy Safety Centre (NSC) as the custodians of enduring safety cultural development and the successful introduction of the ground-breaking Naval Lessons Identified Management System (NLIMS).
4. **Fatalities.** Importantly, there have been no work-related fatalities during the reporting period, a welcome falling trend in personal injuries sustained by both military and civilian Naval Service personnel.
5. **Enforcement Action (Crown Censures, Notices and Other Regulatory Interventions).** No significant enforcement interest from either internal or external regulatory authorities.
6. **Issues and Risks.** Although there are single-theme risks raised by ODH areas, the most worrying cross-cutting theme is the potential impact on safety of declining SQEP, both within the TLB and in key support areas such as DE&S. Whilst these are detailed in individual ODH reports, the real challenge will be how the safety risk from reduced manpower and levels of SQEP across the entirety of the Navy Safety Enterprise can be mitigated when many of the controlling levers lie outside of the Navy Command. Undoubtedly, with improvements in understanding the granularity of where the manpower pinch points lie, it may be possible to target resources, but if this cannot be achieved then these risks maybe realised.

Table of individual TLB/TFA performance against HS&EP Target 6: Compliance:

Element of target 6: Compliance	Navy
OME	4
Nuclear	4
Maritime	3-4
Diving	3-4
Land	4
Aviation	4
Fuel & Gas	4
Movement & Transport	3-4
SHEF	3-4

*: Para 4 of main report refers.

APPENDIX 1.2: ARMY COMMAND SELF-ASSESSMENT

1. This report is the Army's annual submission on the conduct of Health, Safety & Environmental Protection (HS&EP) management within the command from 1 Apr 13 to 31 Mar 14. It identifies issues, risks, successes and future plans; as requested, a report from Joint Helicopter Command (JHC) is included that covers Army Air Safety.
2. This report covers work carried out in the Army TLB in order to meet the requirements of the SofS HS&EP Policy Statement. The Army is adhering to this policy, is compliant with legislation (with exceptions detailed in Paragraph 7) and has adequate assurance arrangements in place⁶ despite continuing pressure arising from military and civilian staff gapping. There has been one on-duty fatality due to identified⁷ HS&EP failings. No Crown Censures have been received. Our extant safety management system works well and is both clearly understood and applied by the chain of command; risks are being managed. The Army's Risk to Life (RtL) methodology which is Haddon-cave compliant and incorporates a Duty Holder construct, has been active since 1 Apr 14.
3. **Performance against HS&EP Targets.** An assessment of performance against DP13 and a summary of supporting evidence, with the level of maturity being marked against the Maturity Matrix, is given at Enclosure 1 to this report. The supportive evidence was received from 2* Commands, Army Competent Advisors & Inspectorates (ACA&I), The Army Inspectorate, HQ JHC, Capability Directorates, audit findings and regulator involvement. Most targets are at Level 4/5 (Compliant/Developed). The exceptions are for target 4 where, due to concerns regarding competencies and qualifications of personnel, a Level 3 has been recorded; target 6(a) where again a Level 3 is recorded for compliance with Legislation, Defence regulations and policy with regard to noise at work, munitions management, dangerous goods consignment and bulk fuel carrying vehicle certification and target 6(e) (Level 3) where there are presently some shortcomings in respect of Safety Cases. Action plans are in place to mitigate the issues associated with target 6(a). These include control measures to address Noise Induced Hearing Loss; an information campaign to reduce FFE violations and discussions with Department of Transport for an interim solution to vehicle certification. Dangerous Goods Consignment has been reduced to 'minor weaknesses'.
4. **Achievements/Successes.** The following are of particular note:
 - a. **Duty Holder Construct.** Publication of the Army's Approach to Risk to Life (RtL)⁸ clearly articulated where responsibility and accountability lies; the construct is an enhancement to governance across the Army. The Army's RtL framework consists of a 5 tier model; The Army's RtL framework consists of a 5 tier model; Senior (4*), Operating (2*) and Delivery Duty Holders with respective 3* and 1* oversight. The Army has captured RtL activities in a matrix identifying 43 main activities, which also identifies the policy and standard setters who assist Duty Holders in finding advice on controlling risks.
 - b. **Safety Campaigns.** Following on from the successes of previous CESO(A) safety campaigns, in order to tackle Free From Explosives (FFE) violations, a new campaign (including the production of a DVD) is in the development stage. The

⁶ Based on the ACA&Is assessment of compliance and DSEA-CPA Audit Army TLB 2013.

⁷ LAIT Report DB1712 dated 5 Mar 14.

⁸ Op Order 14/002 – The Army's Approach to Risk to Life (Army/COS/14/2/10 dated 28 Feb 14).

campaign is being publicised widely through the magazine “Army Safety and Environment Matters” as well as across the MoD intranet and LF Chain of Command.

c. Dangerous Substance and Explosive Atmosphere Regulations (DSEAR).

The Stage 1 risk assessment process was to be completed by 31 Mar 14. Of the 457 sites, 315 are Army and 95% of these have completed to Stage 1. The remaining are low risk Reservist sites and due to their remote locations, it is planned to cover Stage 1 and 2 assessments in one visit. Other TLBs have undertaken the Army-funded training and 140 Army personnel and 90 staff from JFC, DE&S and Navy Command have been trained to date.

d. Incident Notification System (INS). The Army/Navy collaborative development of the Army Incident Notification Cell (AINC) database is complete; this is an in-house development hosted on the Army AIS server at Andover and it went live in late 2013. It supplies trend analysis and meets the changes to Reportable Incidents, Diseases and Dangerous Occurrences (RIDDDOR) 2013 reporting and the MOD minimum reporting requirement. The system has the ability to electronically upload incidents, track and monitor recommendations, and has a sequel reporting tool that can draw statistics. Additionally, Air Command has shown an interest in adopting the system.

e. Unit Safety and Environment Advisers (USEA) Establishment. USEAs have been transferred onto a single establishment under CESO(A). This will not alter either placements of the posts or their day-to-day operation, but facilitates better management of the capability that they provide.

f. Business Process Review (BPR) into Safety Related Fatalities. In Jan 14 a BPR was undertaken as a result of perceived failings in the process that managed fatality through to inquest. Five recommendations were made and the system is now more robust with clear lines of communication across Army Command.

g. Dual Sign Off of Safety Cases. Army policy is that Part 3 Safety Cases are to have a dual sign off. The DE&S Programme Team Leader and the lead Capability Director (or their representatives) now undertake this thereby ensuring that the ‘safe system’ is fully understood and applied. Notwithstanding the success of this policy in respect of both parties understanding the residual risks, there are issues with staffing capacity to retrospectively achieve this as part of the mandated annual Safety Case review process. The policy has also highlighted a number of equipments without Safety Cases including boats operated by the Army and certain C4I / ISS equipments for which other TLBs are the Defence lead.

5. Fatalities. There has been one fatality which occurred in Camp Bastion on 5 Mar 14 as a result of a crushing. Early findings indicate the likely causation was failure to maintain a safe system of work and AESPs providing inadequate direction; all recommendations to prevent recurrence are being actioned.

6. Enforcement Action (Crown Censures, Notices and Other Regulatory Interventions). There has been no external enforcement action. The Health and Safety Executive investigation into the death of Ranger Maguire is ongoing, and there are four internal regulatory notices in place.

7. Issues and Risks.

a. **Munitions Management.** The Army Inspectorate has undertaken scoping work supported by CATO and AD DEODS, which indicates that the policy for munitions management is fit for purpose; however adherence remains an issue. Remedial measures to address breaches are being undertaken including investigating methods for improving the ability to track small arms ammunition. An information campaign to address FFE violations is being developed.

b. **Dangerous Goods Consignment (DGC).** The Movement and Transport Regulator identified compliance concerns in respect of Dangerous Goods (DG) returning from Afghanistan. DSEA, JFC and Service Commands have investigated how to establish responsibility and accountability for ensuring cargo containing DG is correctly identified, packed, labelled and documented. Although downgraded to a minor risk, the Army continues to improve awareness of the responsibilities for appropriate compliance with the DGC policy. This includes further direction to the Chain of Command and increasing the number of All Arms Dangerous Goods Consignors, so ensuring stricter adherence to rules and implementing full oversight.

c. **ADR/Bulk Fuel Carrying Vehicles Certification.** A number of organisations within Defence deliver this service, but with the possible sale of DSG and drawdown of Germany, there may be insufficient capacity to undertake certification. This may cause a breach of legislation. The Land Systems Safety Working Group (LSSWG) is seeking an interim solution with the Department of Transport.

d. **Infrastructure and Division of Responsibilities.** The DIO has produced a framework that articulates future roles, relationships and responsibilities between themselves, the TLBs and their Industry Partner; this is welcomed. In the past there has been occasions where there has been a disconnect that has led to a failure in legal compliance. Such a failure renders a facility temporarily unusable. Examples of this have been the non-availability of tests certificates for lifting ramps and Local Exhaust Ventilation.

e. **Suitably Qualified and Experienced Personnel (SQEP).** Gapping and lack of SQEP continues to cause concern. Provision of SQEP to cover a range of responsibilities, including those placed on Capability Directorates, who are ACA&Is, is being monitored. This is particularly important as competent advice is required to inform the Chain of Command and to support the Duty Holding construct.

f. **Return to Contingency.** Integration of Armoured Vehicle (Wheeled) into core is well advanced with funding and plans in place for the physical modifications necessary for vehicles to meet statutory regulations (Road Traffic Act 1972). The use of the vehicles in training is constrained due to non-complaint driver licensing arrangements and training regimes. Action to address this is needed now to avoid any impact on the generation of contingent capability.

g. **Organisational Change and Safety as a Defence Line of Development (DLoD).** The lack of progress in this area was identified as a finding in the recent DSEA-CPA audit of the TLB. Although stipulated in JSP 815, it has been difficult to make safety a key consideration at the initial stages of planned change. This

subject was raised by the COS LF with D DESC supportive to having safety as a DLoD (TEPIDOILS⁹), so leading safety being considered in its own right and not as an adjunct initiative. As an interim solution, the Army have introduced a paragraph referring to safety considerations in new Implementation Orders. This should ensure safety is considered at the beginning of the change process.

h. **Control of Noise at Work Regulations (CNAWR).** Direction¹⁰ on this has been issued by COS LF to improve compliance of non-professional musicians. A significant risk remains given the scale of the problem [i.e. 73 non-professional musical groups]. Procurement of specialist hearing protection equipment needs to be confirmed and then issued. Engagement between relevant areas including the Army Inspectorate, CESO(A), DCAMUS and D Pers Ops is occurring in respect of this issue and a solution is being pursued which should result in it being resolved by Q3 2014. There are also issues in respect of certain weapon systems which, despite the use of hearing protection, result in personnel being exposed to noise levels that exceed those directed in the CNAWR. Control measures are being put in place and in parallel, exemption cases are being prepared for staffing to the Land Systems Exemption Committee.

i. **Control of Vibration at Work.** A review of AFV vibration is in its early stages in order to understand the totality of the issue. It may take some time for the full extent of the problem to become apparent and it may be necessary to apply for a SofS exemption whilst future engineering methods are examined.

j. **Maritime Issues.** Development of an Army Water safety plan and resolution of safety case issues around obsolescent craft are currently under consideration. Whilst every effort is being made here, the JSPs underpinning maritime operations are still subject to revision.

8. **Air Safety – Joint Helicopter Command (JHC).** Air Safety Management plans and associated reporting structures are in place throughout Army Air Safety Duty Holders. Commander JHC (ODH for all Army aviation and including unmanned aerial systems) reports that the JHC Air Safety Management System (ASMS) is judged as “fundamentally compliant” by the MAA. JHC is performing well against its air safety objectives in most areas. JHC Safety has conducted 2 annual safety culture surveys with broadly encouraging results; personnel have also been recruited to fill some gapped FTRS posts and has a rolling programme of AS Assurance Visits to every UK and overseas JHC post. HQ JHC remains in the unique tri-Service position as the only ODH reporting to, and maintaining coherency with, all three SDHs. The identification of the most significant aviation RtL has helped enable the Helicopter Safety modifications programme with both analysis and RM data being utilised to ensure that strong business cases are developed.

Table of individual TLB/TFA performance against HS&EP Target 6: Compliance:	
Element of target 6: Compliance	Army
Applicable Legislation, Defence Regulations, Policy and Guidance	3
Information Management	4
Organisational Leadership, Culture, Capability and Change Management	4
Personnel Competence and Training	4
Risk Assessments and Safety Cases	3

⁹ Training; Equipment; Personnel; Information; Doctrine; Organisation; Infrastructure; Logistics; 'Safety'.

¹⁰ Control of Noise at Work Regulations – Regimental Pipes, Drums and Bugles (Army/COS/11/5 dated 21 Nov 13).

Equipment/Material and Infrastructure Design and Manufacture	4
Equipment/Material and Infrastructure Maintenance	4
Supervision and Control of Activities	4
Incident Management and Learning from Experience	5
Emergency Arrangements	4
Self-Assurance	5

* Para 4 of main report refers.

APPENDIX 1.3: AIR COMMAND

1. In accordance with Departmental Instructions, AIR Command (AIR) has developed a Total Safety construct which includes the requirements of Health, Safety and Environmental Protection. I chaired the first meeting of the Total Safety Command Board on 31 March 2014 at which the performance of both the Air and Functional Safety arrangements were reviewed. Accordingly, this report is informed by the Board's conclusions.
2. **Performance against HS&EP Targets.** In summary, during the reporting period:
 - a. There was one potentially safety/work-related fatality, summarised at Para. 4, and all significant incidents were reported in accordance with MOD policy (JSP 815);
 - b. There was a negligible increase in the rate of Major Injuries reported;
 - c. There was a reduction in the number of significant environmental incidents. One Major environmental incident occurred, namely a fuel spill at RAF Leeming, which is summarized at Para 7d;
 - d. All ODH areas have achieved the mandated MOD Safety Maturity Model Level 4 performance with the exception of compliance with Dangerous Substances and Explosive Atmosphere Regulations (DSEAR) across the Command, which is subject to DIO action.
3. **Achievements/Successes.** A review of AIR's Air Safety Organisation in mid-13 led to the formation of the RAF Safety Centre (RAFSC), to be headed at 1* level, which draws together the previously separate areas of Flight Safety, Airworthiness and Functional Safety. The RAFSC declared Full Operating Capability on 1 January 2014. The experience and success from the development of the Air Safety Management Plan and Functional Safety and Environmental Management System have been exploited to develop the Royal Air Force Safety and Environmental Management System (AP8000), which describes how the RAF manages Total Safety.
4. **Fatalities.** Sadly, an Air Force Cadet from 1838 (Elm Park) Squadron, Essex, died suddenly at Bramley Defence Training Estate in Hampshire while on a routine fieldcraft exercise. The cadet was discovered unconscious by staff and cadets on the morning of Sunday, 23 March 2014 and emergency action was immediately taken. The cadet was taken to hospital in Basingstoke by ambulance, where staff confirmed that the cadet had died. As per normal civilian police procedures, the police and HSE are investigating the cause of the cadet's death and the RAF are co-operating fully with their investigations. At present the cause of death is unknown. Results of the post-mortem examination are still awaited, which will establish the cause of death. The RAF will convene a Service Inquiry to look into the circumstances surrounding the cadet's death as a matter of urgency. This is being reported as a potentially safety related fatality until such time as the cause of death is known.
5. Update on fatalities from 12/13 report:
 - a. **Mid-Air Collision July 2012 – Moray Firth, 3 fatalities.**
The Service Inquiry (SI) into the Tornado GR4 mid-air collision on 3 Jul 12 (aircraft

ZD743 and ZD812), resulting in 3 fatalities, was issued on a LIMDIS by DG MAA on 8 Nov 13, and the SI Recommendations on AIR are being actioned, primarily affecting 1 Gp, but with appropriate action across all Gps.

b. Mountaineering Avalanche Feb 13 – Cairngorms, 2 x Service, 1 x Civilian.

The SI has completed its investigation, and the report has been approved by the Convening Authority (CA) and is now with the Reviewing Authority (RA) for final approval prior to redaction and release to the Next of Kin. An advance copy of the recommendations has been provided to all Sports Boards across the Department.

c. SAR Mountaineering Rescue Attempt Feb 13 – Ben Nevis, 1 x Civilian.

The SI has completed its investigation, and the report has been approved by the CA and is now with the RA for final approval prior to redaction and release to the Next of Kin, and subsequent release of recommendations.

6. Enforcement Action (Crown Censures, Notices and Other Regulatory Interventions). There was 1 Statutory Regulator and 24 Defence Regulator Notices (Prohibition or Improvement) served during the reporting period. In summary:

a. Statutory Regulator – Qty 1 served by the Environment Agency (EA). EA Notice Level B – to restore and remediate, issued to RAF Leeming in Jan 14 after a Major Fuel Spill. The SI is still ongoing (see para 7d for detail).

b. Prohibition Notices – Qty 6 served by the Fuels & Gases Safety Regulator (FGSR), at; RAF Valley, RAF Scampton, RAF Linton on Ouse, RAF Woodvale and 2 at RAF Henlow, all covering a failure to undertake Infrastructure related maintenance or safety inspections, the responsibility for which lies with the Defence Infrastructure Organisation (DIO). Prohibition Notices are served on the RAF Station Commander, which in this cases requires station staff to engage directly with DIO to expedite the outstanding. Of the 6 Prohibition Notices served, Air currently has 2 outstanding, both served on RAF Henlow at the end of March 2014, which are yet to be actioned by DIO.

c. Improvement Notices– Qty 20. Of the 20 Improvement Notices served, 4 have been cleared, and the remaining 16 have action and/or mitigation plans in place to ensure compliance by the agreed completion date, with 13 of these relating directly to DIO maintenance activity. These have been referred to DIO for action.

7. Issues and Risks. AIR's key issues are:

a. **DSEAR Non-Compliance.** AIR work to comply with DSEAR has now completed. The 11 remaining Stations¹¹ that required a Stage 2 Risk Assessment (RA) were completed during FY13/14. All remedial work arising from the DSEAR RAs will be added to each Stations Forward Maintenance Register, for DIO to address by Q4 14/15, agreed as part of the Departmental approach to resolution of the DSEAR compliance issue. AIR will not be fully DSEAR compliant until DIO complete this remedial work.

b. **RAF Leeming – Reduce to Produce (RTP) – Environmental Permit.** In Jan 12, Station Commander RAF Leeming was informed by the EA that the Tornado PT's

¹¹ 1 Gp: RAF Fylingdales, RAF Leuchars, RAF Lossiemouth, RAF Marham, RAF Scampton; 2 Gp: RAF Honington; 22 (Trg) Gp: RAF Linton On Ouse, MOD St Athan, HMS Sultan, Winterbourne Gunner, and 38 Gp: RAF High Wycombe.

RTP Facility, contracted to BAE by DE&S, required an Environmental Permit. Following a series of meetings, and after obtaining Regulatory guidance, DE&S entered into discussion with the EA to determine the level of permit required. Feb14 meetings between the EA and DE&S revealed that the EA may no longer require this activity to be permitted, and that it may be contained within an agreed Environmental Risk Assessment. Formal clarification of this decision is expected by the end of Mar 14. No formal Notice was ever served by the EA.

c. **RAF Brize Norton – Environmental Noise.** With the transfer of the C130 Hercules Force from RAF Lyneham to RAF Brize Norton in 2011, the level of environmental noise complaints has increased significantly (circa 20 to 1000 in a calendar year). Much effort and resource has been committed to try and resolve the issue, and active engagement with the local community continues. More recently the Centre for Aviation Medicine, Noise & Vibration Division, produced a Noise Amelioration Scheme assessment that was made public on 10 Feb 14. This contained unadjusted and administratively adjusted noise contours. Moreover, a contract has been let to produce a station wide Environmental Appraisal which will include environmental noise. This is due to complete by end Apr 14, and will establish a baseline to allow the quantification of any future changes at RAF Brize Norton.

d. **RAF Leeming – Major Fuel Spill.** On 14 Jan 14, a major fuel spillage occurred during a cross-base fuel transfer, resulting in the initial loss of approximately 122,000 litres of aviation fuel. Around 60,000 have since been accounted for in emergency containment facilities and other infrastructure. Therefore it is estimated that approximately 62,000 litres escaped to the River Swale. The EA issued an Enforcement Notice (Level B – to restore and remediate) to Station Commander RAF Leeming. An SI has been instigated, which is still ongoing and due to complete in summer 2014.

e. **Return of Dangerous Goods from Afghanistan.** Although of direct significance to AIR, with much of the Equipment returning via air freight, the issue is owned and managed by JFC. Both JFC and the DSEA Movements and Transport Safety Regulator have been working in theatre to provide education and oversight, ensuring the correct packaging and labelling requirements are being applied. Although still a concern, the situation is being actively managed.

f. **Safety Cases.** AIR has taken full responsibility for its equipment Safety Case management. Aircraft Safety Cases have been managed within AIR since the implementation of the Haddon-Cave report. Safety Cases for other equipment (Air Support Systems and other legacy equipments) are also being actively pursued and managed.

8. Air's key risks are:

a. **Mid-Air Collision.**

b. **A shortfall in Suitably Qualified and Experienced Personnel (SQEP).**

c. **Road Traffic Accidents.**

d. **The risks to deployed personnel from the Ordnance, Munitions and Explosives standards of Coalition Partners.**

e. Safety shortfalls arising from shortfalls in DIO Performance.

9. The safety impact of Organisational Change within AIR is covered by the Adjustment Process. This process covers any new measure or program, or one that alters an existing programme, project or affects the business as usual position through changes to either Organisation, Structure, Defence Final Outputs, Capability, 3rd Order Assumptions, financial profile or manpower requirements. The process passes the formal requirement through various streams to gain a full understanding of the impact. Such streams are; Flight Safety; HS&EP; Sustainability; DE&S; Manpower; Dstl; and Other TLBs etc. The RAFSC provides the Flight Safety, HS&EP, and Sustainability input to the development of the requirement, forming the Safety, Environmental and Sustainability impact assessment for the change. There are currently no major organisational or resource changes planned within AIR that require a safety assessment of the impact of change on HS&EP.

10. In terms of overall Safety Management, including Hazard, Risk and Issue management, AIR is content that there are suitable and sufficient safe systems of work in place, supported by robust risk assessments and demanding audit and inspection programs, to provide a high level of safety assurance, meeting the mandated Level 4- Compliant standard across all areas, with the exception of DSEAR compliance, which is a pan-Departmental issue.

Table of individual TLB/TFA performance against HS&EP Target 6: Compliance:	
Element of target 6: Compliance	AIR
Applicable Legislation, Defence Regulations, Policy and Guidance	3
Information Management	4
Organisational Leadership, Culture, Capability and Change Management	4
Personnel Competence and Training	4
Risk Assessments and Safety Cases	4
Equipment/Material and Infrastructure Design and Manufacture	4
Equipment/Material and Infrastructure Maintenance	4
Supervision and Control of Activities	4
Incident Management and Learning from Experience	4
Emergency Arrangements	4
Self-Assurance	4

*Para 4 of main report refers.

APPENDIX 1.4: JOINT FORCES COMMAND (JFC)

1. This report reviews the Safety, Health and Environmental Protection (SHEP) performance within Joint Forces Command TLB for the 12 month from 31 March 2013 to 01 April 2014¹². This report is based on contributions from the following organisations:

- Director Special Forces
- Defence Intelligence
- Surgeon General
- Defence Academy
- PJHQ
- COS HLB
- British Forces Cyprus
- British Forces South Atlantic Islands
- British Forces Gibraltar

2. **Performance against HS&EP Targets.** The management of safety and environmental protection continues to mature and become further embedded into the JFC's day-to-day activities. Senior managers are supportive and are aware of their responsibilities and of the need to demonstrate continual improvement. The JFC Command Board actively monitors JFC SHEP performance at quarterly board meetings.

2.1. Based on the assessments of Higher Level Budget Holders and Permanent Joint Operating Base Commanders, JFC achieved the target maturity level 4 against Defence Plan 13 targets:

- | | | |
|----|-----------------------------------|----------------|
| a. | Target 2 – Learning Organisation | Level 4 |
| b. | Target 3 – Leadership and Culture | Level 4 |
| c. | Target 4 – Competence | Level 4 |
| d. | Target 5 – Hazards and Risks | Level 4 |

2.2. The spread of scores across JFC is detailed below:

DP 13 Targets	PJHQ	DSF	DI	SG	DA	COS HLB	BFC	BFSAI	BF Gib	JFC Average
Learning	4	4	5	4	5	4	4	5	4	4.3
Leadership & Culture	5	4	4	4	5	4	3	5	5	4.3
Competence	4	4	4	4	4	4	4	5	5	4.2
Hazards & Risks	4	4	4	4	4	4	4	4	4	4.0

2.3. Two HLB level SHEP Audits were conducted by CESO (JFC) in the reporting period against the requirements of the MOD SHEP Audit Manual JSP 375 Vol 4. The results are indicated below:

- CJO – 85 % 'B' Rating
- BF Cyprus 86% 'B' Rating

¹² Based on the format provided by DSEA CPA.

These two reports were very positive and both close to achieving an 'A' rating (90%) and demonstrate an improvement from previous assessments.

3. **Achievements/Successes.** JFC made a number of notable achievements in the reporting period including the successful roll out of Duty Holder Construct; compliance with the requirements of the Dangerous Substances and Explosives Atmospheres Regulations by completing Stage 1 and 2 assessments for UK sites; production of the JFC Air Safety Management Plan and a positive report following the Defence Safety & Environmental Authority audit. In addition a trial of the SilverCloud online wellness and well being solution was launched across Defence Intelligence and Surgeon General HLBs in February 2014.

4. **Fatalities.** Sadly there were 5 non-combat related fatalities in the reporting period in JFC:

- 3 Reserve soldiers died during a training exercise on Brecon Beacons in July 2013, these fatalities are still subject to investigation by the Police and the HSE.
- A soldier died in Camp Bastion in Afghanistan in March 2014 following a crushing incident at the vehicle decontamination area. This incident was subject to formal investigation by the SIB, SEFIT and LAIT. The initial LAIT report identified the underlying cause was a failure of the safety management system. Action has been taken to address these failings and other recommendations contained in the LAIT report.
- A soldier was found to have drowned in a small lake within the boundaries of DISC Chicksands in May 2013; this incident was investigated by the Police and HSE and the unit was found not to be at blame. However some minor changes to procedures and protocols have since been implemented.

5. **Enforcement Action (Crown Censures, Notices and Other Regulatory Interventions):**

5.1 Crown Improvement Notice and Notice of Contravention:

- A Crown Improvement Notice was issued by the HSE for a lack of Suitable and Sufficient Risk Assessments following the three fatalities on Brecon Beacon in July 2013. This notice was removed in December 2013 following a revision of the Risk Assessments.
- A Notice of Contravention was issued by the HSE in February 2013 for a lack of Suitable and Sufficient Risk Assessments relating to a Cobalt 60 source at the Defence Academy; this notice was removed in July 2013 following a revision of the Risk Assessments.
- A Notice of Contravention was issued by the HSE in February 2013 for a lack of Suitable and Sufficient Risk Assessments relating to hand arm vibration syndrome for dental professionals. This notice was removed in July 2013 following a revision of the Risk Assessments.

5.2 Defence Prohibition Notices:

- 14 Defence Prohibition Notices were issued by the Defence Fuels and Gases Safety Regulator in the reporting period for infrastructure failings at various fuels installations across JFC. 6 of the Notices have been removed due to

infrastructure improvements but 8¹³ of the notices remain extant awaiting funding or completion of works.

5.3 Defence Improvement Notices:

- 9 Defence Improvement Notices were issued by the Defence Fuels and Gases Safety Regulator in the reporting period for infrastructure failings or non DSEAR compliant equipment at various fuels installations across JFC. 8 of the notices remain extant awaiting infrastructure improvements or completion of works.
- 1 Defence Improvement Notice was carried forward from the previous reporting period relating to a lack of “suitable Environmental Risk Assessment” in BFSAI. An ERA was produced on behalf of JFC and submitted to the Regulator for consideration but this was also recently rejected. CESO will therefore liaise directly with the Regulator to address the problem.

6. **Issues and Risks.** HLBs/PJOBS reported a wide range of issues and risks, many of which were site specific, rather than TLB wide. The most commonly reported or potentially significant SHEP issues and risks identified in JFC were:

- A lack of maintenance/ failure of DIO to identify/ fund essential infrastructure maintenance is presenting a risk of infrastructure failure/injury and the ability of JFC to maintain outputs. These deficiencies resulted in a number of Defence Prohibition and Improvements Notices being issued as the safety at some JFC fuel facilities was no longer considered to be ALARP. JFC Commanders currently have Duty Holder responsibility for infrastructure failings but lack the direct authority to rectify them.
- The Defence Movement and Transport Regulator identified an issue with hazardous goods, such as lithium ion batteries being improperly transported by aircraft back to the UK from Ops. JFC has put in place numerous additional control measures to address these concerns and the Regulator has acknowledged the improvements; however given that around 200 tonnes of equipment is shipped from Ops every week there is still a potential for problems to occur. Therefore continued vigilance is required to mitigate this risk and JFC continues to work with the Regulator and others to do so.
- The Defence Movement and Transport Regulator identified an issue with equipment, such as vehicles and other material being transported by aircraft and ship to the UK from Ops and the PJOBS having been incorrectly packed or restrained. JFC has put in place numerous additional control measures and continues to work with the Regulator to mitigate the risk.
- The lack of suitably qualified experience personnel (SQEP) and gapped posts was identified by most organisations within JFC and also in CESO audits. The impact of this shortfall has resulted in a reduction in the number of competent personnel to provide SHEP advice/ cover safety critical posts and could potentially result in a failure to meet regulatory requirements. However, gaps have been covered by HLB and CESO team members providing cover as required so that this remains a risk and not yet an issue.

¹³ RAF Wyton and Kings Lines Prohibition Notices not included as this is a technical requirement as the facility has been closed.

- JFC continues to develop and undertake organisational change including Defence Primary Health Care moving to SG and ISS moving from DE&S to JFC. There is a risk that safety standards could suffer as a result of the changes. Risk Assessments have been completed, which are being used to help JFC to mitigate those risks identified.

Table of individual TLB/TFA performance against HS&EP Target 6: Compliance:	
Element of target 6: Compliance	JFC
Applicable Legislation, Defence Regulations, Policy and Guidance	4
Information Management	4
Organisational Leadership, Culture, Capability and Change Management	4
Personnel Competence and Training	4
Risk Assessments and Safety Cases	4
Equipment/Material and Infrastructure Design and Manufacture	4
Equipment/Material and Infrastructure Maintenance	3
Supervision and Control of Activities	4
Incident Management and Learning from Experience	4
Emergency Arrangements	4
Self-Assurance	4

* Para 4 of main report refers.

APPENDIX 1.5: DEFENCE EQUIPMENT & SUPPORT (DE&S)

1. **Performance against HS&EP Targets.** Defence Equipment & Support (DE&S) assesses itself as at:

- Level 4 for the targets on 'Leadership and Culture', and 'Learning'; and
- Level 3 for the targets on 'Competence', 'Hazards and Risks' and 'Compliance'.

Competence: Recruiting and retaining competent people into Safety Critical posts remains a challenge and therefore attracts senior-level attention and direction. Where vacancies exist, they are filled temporarily with competent manpower substitution or safety decision-making is transferred to other competent people. Substantial effort is being made to grow safety competence via system-safety courses with associated professional accreditation.

Hazards and Risks and Compliance: DE&S's assessment of its performance against these targets balances its substantial proactive work on safety management, including ensuring that hazards are identified and risks mitigated to ALARP and the mitigations beneath corporate Equipment Safety Risk No 12918 (Annex B), and recent audit findings and HSE enforcement. Achieving these targets is about delivering the desired outcome and not a measure of commitment or effort; thus, DE&S assesses itself based on outputs and not just inputs.

DE&S's Delivery Plan sets out the work necessary to meet the DP13 targets and its aspirations as set out in CDM's Vision Statement for Safety¹⁴. DE&S expects to declare maturity Level 4 against all targets during 2015. Director Technical reports progress against this plan to each DE&S 3-star Safety Board and quarterly to the DE&S Board.

2. **Achievements/Successes.** DE&S highlights the following achievements and successes:

a. **Safety Vision and Key Safety Message.** CDM's "Vision for Safety" has been communicated across the TLB. He describes DE&S's safety-related ambition to be better than any other Defence organization across the world at preventing unintended harm to people and the environment arising from our business activities. Thus, 'best in class' for Defence across the world'.¹⁵ This aspiration is underpinned by 8 Key Safety Messages, which describe the behaviours expected in DE&S staff and the way that DE&S will conduct its business. In sum, **DE&S: Delivery focused; Safety driven.**

b. **Learning from Experience (LFE) Events.** Considerable effort has been expended across DE&S into exploiting learning opportunities. These include a rolling monthly programme headed by Operating Centre (OC) Directors of staged DE&S-wide safety-focused LFE events. This successful initiative is being built upon in 2014 to sustain and embed learning.

¹⁴ CDM's Vision Statement link: <http://cui6-uk.diif.r.mil.uk/r/666/safetyboard/CDMs%20Vision%20for%20Safety/Forms/AllItems.aspx>

¹⁵ A best in class organization exhibits exemplary best practice. Such an organization is singled out from the pack and is recognized as a leader for its arrangements for dealing with all the aspects of safety including acquisition and processing of materials and the delivery of safe products or services to its customers.

c. **Defence Standard 00-56 for safety contracting.** DE&S has reviewed, developed and re-issued Defence Standard 00-56, which defines how to effectively contract for safety across the MOD. The correct use of this standard is fundamental for safety and capability across the Department.

d. **Growing competence:** DE&S has delivered a suite of Acquisition Safety and Environmental courses designed for its staff, which is also widely accessible to Front Line Commands and industry. These are accredited by the International Institute of Risk and Safety Management (IIRSM) and the Institute of Environmental Management and Assessment (IEMA), providing a step change in growing safety competence and benchmarking the practitioner status across the Defence sector.

3. **Fatalities.** Regrettably, there was a fatality on the DE&S estate last year. On 19 Nov 13, a DE&S contractor employed as a co-driver delivering to DE&S Kineton was crushed between a reversing vehicle and a parked trailer. HSE has served a Crown Improvement Notice (IN) (see below) and continues its investigation. DE&S has initiated a number of actions, including: an internal transport review across all relevant sites; assurance from all sites that their risk assessments and control measures are controlling workplace transport risks; and is seeking an independent expert to audit all sites to identify and advise on workplace transport improvements.

4. **Enforcement Action (Crown Censures, Notices and Other Regulatory Interventions):**

a. **Crown Enforcement Notice:** On 12 Dec 13, the HSE served a Crown IN on the MOD, because no risk assessments were in place relating to the risk to employees and others arising from the movement of large goods vehicles at **Kineton**, which expired on 31 Mar 14 and was extended to accommodate corrective action until 27 Jun 14.

b. **DSEA: Defence Maritime Regulator: Aug 13:** Two Prohibition Notices (PN) served on Serco Denholm for diving operations with no written scheme of examination for fixed-high pressure breathing air systems, no safe systems for maintenance/management of breathing gas, and failure to have suitable and sufficient plant to carry out the diving project safely and without risk to health; PN complied with and rescinded Jan 14. **Feb 14:** PN served on the Chief Salvage and Mooring Officer on 21 Feb 14 relating to maintenance of fixed equipment and out of date documentation; PN complied with, notice rescinded 28 Feb 14.

c. **DSEA: Land Systems Safety Regulator- May 13:** IN served due to Director Land Equipment's publications not reflecting the latest safe build standard and/or safety case. Resourced plans to improve Publications now in place with a Safety Panel review and priorities set. A performance indicator has been agreed that if met will signal the lifting of the notice.

d. **DSEA: Movement and Transport Safety Regulator – Oct 13:** IN served on Head Logistics Services in respect of rail safety management, and equipment care and maintenance: no SQEP (Suitably Qualified and Experienced People) appointed as Equipment Safety Officer; no evidence of formal qualifications or competence of fitters; overdue permanent way inspections; and failure to fully implement an internal audit and inspection regime. IN complied with and rescinded 30 April 14.

e. **DSEA: Fuels & Gases: Apr 13:** IN served on Tower barracks, for Certificates of Conformity not completed correctly; IN rescinded May 13.. **Jul 13:** IN served on the Bustard Flying Club, Boscombe Down as DSEAR risk assessment not met satisfactorily; IN complied with in Aug 13. **Jul 13:** PN served on MOD Boscombe Down (run for DE&S by Qinetiq) on the storage of bulk fuels and lubricants and a lack of inspection and testing of electrical systems; PN complied with Aug 13. **Dec 13:** IN served on LCS Bicester to improve an oil water interceptor; agreed plans with Regulator are in place to resolve concerns by 1 Nov 14. **Jan 14:** PN served against DM Beith due to lack of SQEP Fuels & Lubricants manager on site and inadequate inspection of fuels infrastructure and flammable goods stores; PN rescinded 20 Mar 14.

f. **DSEA: Major Accident Control Regulations: Singapore:** Two INs were served on the Oil Fuel Depot (OFD) in 2010 and 2013 due to inadequate secondary bunding and lack of environmental risk assessment (ERA). DIO has been approached to deliver the bunding improvement engineering works (DE&S to fund) and depot staff have provided ERA to MACR in Mar 13. **LCS West Moors:** Lack of ERA and lack of bunding in tank farm. An ERA was sent to MACR Jan 14, and response expected May 14; a survey of bunding is in progress. **DM Gosport:** Updated ERA sent to MACR Nov 13, response awaited. **DM Kington:** Lack of ERA, and storage of munitions too close to Explosives Storehouse walls; both have now been complied with.

g. **Long Term Partnering Arrangement (LTPA)- Dec 13:** HSE served IN on Qinetiq Shoeburyness due to lack of suitable and sufficient risk assessment, and failure in provision of information to employees involved in disposal of explosives articles by cage burning. IN complied with and rescinded in Jan 14.

5. **Issues and Risks;**

a. **Fuel infrastructure.** Enforcement against DE&S shows the challenges that DE&S faces in ensuring that its fuels infrastructure is compliant. This will require considerable investment following years of under-investment. If not, further degradation may lead to safety and environmental incidents affecting MOD's capability and reputation.

b. **Organisational Change.** From Apr 14, DE&S became a bespoke central government trading entity. A key element of the MatStrat programme has focussed on safety matters. DE&S will focus on delivering CDM's Vision and making its 8 x Key Safety Messages the way "we do business around here". Existing policies and processes will underpin future activity, systems safety training will be continued and embedded, and the role of Head of Profession (Safety) will be enhanced linking DE&S safety practitioners into a stronger matrix for delivery. Cultural change will not happen overnight, and the senior leaders are determined to make CDM's Vision a reality.

c. **Competence.** The filling of Safety-Critical posts remains a concern, but application of new HR freedoms gained by becoming a trading entity should address the shortfall. Additionally DE&S is considering how best to develop a targeted approach to recruitment of competent people into scarce disciplines, e.g. Naval Architects, Software Engineers, Chief Electrical and Mechanical Engineers to support future competence requirements such as the Successor programme. DE&S will also develop a response-plan to its Zero Based Review, where early evidence is that a significant amount of subject matter experts' time is taken up with general management/administration. DE&S is determined to use all its new freedoms to address these challenges.

d. **Safety SQEP in MOD.** The development of DE&S into a trading entity of the MOD with a hard charging between it and the Department may require other TLBs subsequently to develop its safety SQEP to a greater degree.

e. **LFE.** DE&S will ensure wide learning from the fatal accident at Kineton, and is checking to ensure that workplace transport and all its higher hazard activities are being appropriately controlled.

Table of individual TLB/TFA performance against HS&EP Target 6: Compliance:	
Element of target 6: Compliance	DE&S
Applicable Legislation, Defence Regulations, Policy and Guidance	4
Information Management	3
Organisational Leadership, Culture, Capability and Change Management	4
Personnel Competence and Training	4
Risk Assessments and Safety Cases	4
Equipment/Material and Infrastructure Design and Manufacture	4
Equipment/Material and Infrastructure Maintenance	4
Supervision and Control of Activities	3
Incident Management and Learning from Experience	4
Emergency Arrangements	4
Self-Assurance	4

* Para 4 of main report refers.

APPENDIX 1.6: DEFENCE INFRASTRUCTURE ORGANISATION (DIO)

1. This report measures DIO Performance in conducting activities against Defence Plan targets for Health, Safety and Environmental Protection (HSEP). This includes DIO's role as infrastructure enabler for Defence in providing sustainable, safe and legally compliant infrastructure and infrastructure services.
2. **Performance against HS&EP Targets.** Assessment of performance against DP13 Targets has been completed. For Target 1, details are included at Paragraph 13 and 14. noting DP targets 1.b (reduction in rate of major injuries) and 1.c (reduction in number of significant environmental incidents) were not met.
3. For Targets 2 – 6, this has been assessed in accordance with DSEA guidance as follows: for Targets 2 to 5, performance has been assessed using the Safety and EP Maturity Model as advised in DSEA/CPA/04-07-07 Dated September 2013; for Target 6, compliance is separated into topic areas and has been assessed using the revised performance assessment model in JSP815 Leaflet 10.
4. The Defence Plan requires TLBs and TFAs to achieve Level 4 Maturity for all targets by end March 2014. Overall, DIO considers that it has sufficient evidence to show an improvement against last years scores, although it is clear that Level 4 has not been achieved across all areas.
5. The evidence provided demonstrates Maturity and Performance scores with the majority at Level 3 with one (Compliance – Equipment/Materiel and Infrastructure Maintenance) at Level 2. Each evidence section contains a DIO self-assessment statement. Where Level 4 has not yet been achieved, details are included to indicate how the shortfall is being addressed. Supporting evidence is also included to demonstrate aspects of interest to the appropriate Defence Regulator.
6. It can be seen from the Maturity Scoring that even through the significant change that has been undertaken within DIO, there has been progress made towards a Departmental target of Maturity 4. This was recognised through the DSEA Audit of DIO in December 13 which noted the progress made across the HSEP areas and found DIO to be essentially compliant with JSP 815.
7. **Achievements/Successes.** DIO has undergone a significant transformation and this level of change will continue over the next twelve months. That said, significant progress has been made in a number of areas, for example the Leadership and Culture element has seen a step change with the creation of an Infrastructure Domain Health Safety and Environmental Protection Committee which forms a sub committee of the Executive Committee of DIO; and the visibility and discussion of HS&EP Data at all Senior Committees. Whilst some aspects achieve Level 4, it has been scored at Level 3 pending completion of work on delegations.
8. Progress has been made in recruiting into the organisation and this should help alleviate a number of resource challenges although there remain some difficulties in recruiting into deep specialist posts.
9. Much work has been undertaken to define the specific roles and responsibilities at a working level with documents produced in conjunction with the Joint User Group and the published Site Guidance Documentation. It was recognised at the DESC in December

2013 that perhaps the perceived confusion still being reported at Senior Levels within the Department was an education issue which would need TLB's to drive. This had been recognised in the Navy who stated that they were embarking on a training programme to ensure that their Heads of Establishment understood their responsibilities and where DIO fitted into the Duty Holder Facing space. In support of this DIO has led a Duty Holder Facing piece of work and a draft paper has been submitted to DSEA for circulation to the DESC WG. This paper suggests that the level of detail contained within JSP 815 is not sufficient to define the roles sufficiently and that further detail should be included in the MOD's top level policy.

10. Good progress has been made for Incident Management and Learning from Experience and this would have achieved Level 4 pending evidence of a maturing feedback loop from the Incident Notification Cell to the 1* Delivery Committees.

11. DIO carries out certain estate responsibilities and provides contractual support for US Visiting Forces operations, with DIO USF as the "Appropriate Authority of HMG" under the NATO Status of Forces Agreement (SOFA) 1951 (and subsequent amendments) and the UK/US Cost Sharing Arrangement 1973. The split of responsibilities is defined within the Base Facility Management Agreement and there is a requirement for Host Nation Stewardship Reporting, this is enshrined in both the SHEP Policy Statements of the Secretary of State and CE DIO.

12. As DIO continues its transition into its new operating model, the DIO USF assurance team are developing a reporting format which provides separate annual reports covering DIO service delivery USF Sub-Regions East & West; which together cover all the MOD locations utilised by the US Visiting Force. The Reports identify the state of compliance with UK Host Nation statute and the assurance criteria determining achievement of stewardship of the Defence Estate. A number of compliance and longer term issues have been identified and, generally, this relates to the acceptance of Host Nation standards where there are significant differences in approach between the host and visiting standards or where there is no US near-equivalent to the Host Nation requirements. In a number of these cases, consideration has been given to risk implications, and separate funding arrangements have been implemented to secure compliance. Work continues in the development and resourcing of the Host Nation Stewardship Assurance programme as implementation of the Next Generation Estates Contracting programme commences.

13. **Fatalities.** Defence Plan Headline Target 1 places an aspiration on TLBs to minimise work-related, non-combat fatalities, major injuries, ill health and adverse effects on the environment. During this reporting period, DIO performance is as follows:

a. The target to achieve no statistically significant increase in fatalities over a rolling 12-month period **continues to be met** with no fatalities attributable to DIO activities during this reporting period.

b. The target to achieve a reduction in rate of major injuries from the previous year **has not been met**. There has been an increase in major injuries to DIO staff with a total of 5 resulting in an Accident Incidence Rate (AIR¹⁶) of 89.29 against a target AIR of 54.35. In response, two new risks have been added (Risk 6: Organisational

¹⁶ Measured as number of major injuries per 100,000 employees

Change and Risk 9: Occupational Health and Welfare) to investigate the changing DIO risk profile and focus on promoting staff wellbeing. It is noted that DIO statistics now include the MOD Guard Service (MGS). This represents an overall increase in number of reported incidents and reflects a greater number of staff operating within a differing role for DIO. This impacts on the overall risk profile and action is planned to include guarding activities within site monitoring visits by Regional H&S support staff; with findings feeding the DIO assurance programme.

14. **Enforcement Action (Crown Censures, Notices and Other Regulatory Interventions);**

a. The target to achieve a reduction in number of significant environmental incidents from the previous year **has not been met**. There has been an increase with a total of 5 reported; this is an increase from 3 reported in the 2012-2013 period. In response, emphasis is being placed on the intelligent use of data to more effectively identify and target priority remedial works.

b. There has been a significant increase in the number of Prohibition and Improvement Notices issued by the Fuel and Gas Regulator in the 2013-2014 reporting period. In response, a revised and strengthened reporting and assurance mechanism is currently being implemented to target outstanding actions.

15. **Issues and Risks.** The DIO Report for January 2012 to March 2013 contained a Table of Risks comprising ten number Risks and Issues. Of these, one of the actions¹⁷ has been closed out and removed; the remainder have been reorganised, carried forward and updated to indicate the current status.

16. Two elements are considered as Red (Very High Risks). These are Risk 4 Fuel Infrastructure Compliance Management - Increasing Regulatory Intervention and Risk 11 Competency and Suitably Qualified and Experienced Personnel (SQEP). There are four elements considered as Amber (High Risk) and six elements considered as Yellow (Medium Risk). Green – Low Risk aspects are not included in this Report.

17. Defence Internal Audit (DIA) conducted a review of Health and Safety responsibilities for Sites in Disposal and this resulted in an action plan being implemented to address the concerns in the report; including how Head of Establishment duties are to be effectively discharged for the circumstances on transfer from TLBs. This is being led by a Working Group which reports progress to ECIB.

18. Work continues to clarify Duty Holder responsibilities and this includes work to detail the DIO Duty Holder Facing aspects as a key enabler to Defence activities. Infrastructure Duty Holder Facing is being led by DIO in conjunction with the DESC Working Group.

Table of individual TLB/TFA performance against HS&EP Target 6: Compliance: DIO

Element of target 6: Compliance	DIO
Applicable Legislation, Defence Regulations, Policy and Guidance	3
Information Management	3
Organisational Leadership, Culture, Capability and Change Management	3
Personnel Competence and Training	3
Risk Assessments and Safety Cases	3

¹⁷ Electrical Power Safety, Resilience and Availability. The HSEP aspects have been addressed and as the outstanding aspects are specific to resilience and availability and not HSEP, they will be addressed separately.

Equipment/Material and Infrastructure Design and Manufacture	3
Equipment/Material and Infrastructure Maintenance	2
Supervision and Control of Activities	3
Incident Management and Learning from Experience	3
Emergency Arrangements	3
Self-Assurance	3

APPENDIX 1.7: HEAD OFFICE AND CORPORATE SERVICES (HOCS)

1. Since the formation of the Head Office and Corporate Services Top Level Budget (HO&CS TLB), work has continued to ensure that appropriate and suitable safety arrangements especially in regard to reporting performance and compliance, are in place to meet both statutory and departmental requirements. The SHEP audit of the TLB which was undertaken by DSEA in September 2013 provided the TLB with this assurance. Minor recommendations made in the audit have already been implemented to reinforce the TLB's overarching SHE arrangements.

2. As reported last year, the primary focus within the HO&CS remains Occupational Health & Safety and Environmental Protection being a mainly office based TLB. However exceptions to this are the MDP, which is the only operational element in the TLB and PINDAR, which presents a potentially hazardous environment, although the stringent controls in place reduce the risks. In recent months, the PINDAR SHEP team has been augmented to reinforce the delivery of a safe working environment.

3. Since the last report, the TLB Holder has put in place a 6-monthly assurance report regime to monitor progress across all Business Units, highlight any potential areas of weakness and identify risks in order to provide an overview of how SHEP is being delivered and managed at the various sites where HO&CS staff are based. At the 7 UK sites where HO&CS holds Head of Establishment roles, the TLB Holder obtains assurance that these sites are statutorily compliant and adhere to departmental guidelines and best practice. In the last 12 months, JFC (CESO) has completed 5 audits of HO&CS Business Areas. Only relatively minor observations were noted and where re-visits were made, improvements have taken place.

4. **Performance against HS&EP Targets;**

Leadership & Culture: With the exception of MOD SAP, which is at Level 3, all other Business Areas within HO&CS, have achieved Level 4. The MOD SAP Management Board is fully committed to leading by example on matters of safety and has introduced a range of policies and procedures to develop and enhance existing arrangements to achieve the Level 4 criteria. This is judged to be a minor weakness and Level 4 should be achieved in a short time-frame.

Competence: The impact of VERS and organisational change has had an adverse impact on SQEP in some parts of the TLB. Whilst the vast majority of Business Areas have attained Level 4, DSEA has so far only attained Level 3 due to the lack of SQEP within areas such as DMR.

Hazards & Risks: Level 4 has been achieved across the majority of the TLB. Due to organisational changes, some Business Units are still evolving, only achieving Level 3, and work to define the areas Risks and Hazards and the creation of an overall TLB Risk Register, is starting to take shape. Work is underway to identify risks and put a process in place to monitor progress and mitigate risks for all outlying parts of the TLB. Risks and Hazards for Main Building have been identified and are kept under continuous review by the Head of Establishment.

5. **Achievements/Successes.** In their role as the Defence Authority for safety, DSEA have issued SofS's Safety, Health and Environmental Protection policy statement along

with JSP 815 and reviewed all other DSEA sponsored Joint Service Publications. The TLB continues to build on implementing the Duty Holder framework. For example Chief Constable MDP, an Operational Duty Holder, has formally appointed Delivery Duty Holders for his organisation. The TLB has contributed to the development of a generic Duty Holder training course by DSEA to support Duty Holders in carrying out their duties.

5.1 Whilst issues remain regarding the completion and capture of mandatory SHE related training courses, 83% of DBS staff have completed and recorded the details on HRMS, which is a marked improvement. MDP has also reported a significant improvement with safety related training with 11 IOSH Managing Safely and 14 Dangerous Goods courses having been delivered. Further work to now improve the position across the rest of the TLB remains ongoing.

5.2 The accident rate across the TLB remains comparatively low, which reflects the generally low risk nature of work undertaken, but efforts continue to ensure that accidents and near misses are reported. Working in conjunction with JFC (CESO), a new and revised TLB Safety Health and Environmental management System (SHEMS) was produced to provide improved guidance on the TLB SHEP structure (which includes the Duty Holder construct), safety reporting and governance arrangements.

5.3 Arising from the DSEA Audit recommendations, the TLB organised and held its first SHEP peer review group. Using the SHEP Links meeting the TLB SHEP focal points met to discuss their individual Business Areas contribution to the main Annual SHEP report.

6. **Fatalities.** For a successive year there have been no work-related, non-combat fatalities.

7. **Enforcement Action (Crown Censures, Notices and Other Regulatory Interventions).** For a successive year there have been no Regulatory Interventions to report.

8. **Issues and Risks.** As reported in last year's report, the lack of suitably qualified and experience personnel (SQEP) remains an ongoing risk and concern. The loss of SQEP as a result of the Department's Voluntary Early Release Scheme (VERS) is one factor as well as organisational changes. To mitigate these, DBS are reshaping their SHEP resources to respond to the emerging DBS organisation and the challenges arising from VERS. Within the MDP Headquarters, attention is being given to the effects of restructuring. DSEA are also facing a shortage of SQEP in some of their specialist areas such as the Defence Maritime Regulator area which will need to be addressed. The departure of the trainer for the Safety for Senior Executives course on VERS has created a gap in capability and alternative sources of training are being urgently sought.

8.1 With regard to the planned amalgamation of DSEA and MAA into one organisation, a number of challenges will arise. In order to assess and minimise the impact any risks, a Joint Working Group has been set up. The HO&CS Resources Board will monitor the progress and implications of this merger and will manage and address any associated risks to current safety arrangements. Through the 6-monthly SHEP assurance report introduced by the TLB Holder, it has become apparent that an improvement in SHEP reporting arrangements and communication with all elements of HO&CS Business Areas is required. Guidance and instructions have been produced and issued and closer monitoring

is being carried out to ensure all HO&CS areas are fully supported and appropriately managed to maintain a duty of care.

8.2 Anxiety, Stress and Depression (ASD) are the cause of most of the TLB's long term absences, accounting for nearly 20% of all days lost, although there is no information to conclude that absences were attributable to workplace stress. The publication of the Department's wellbeing strategy will assist but in the meantime local initiatives are being put in place. Notably DBS has introduced a pilot 'workplace wellbeing charter' which will be rolled out across the rest of DBS if it proves to be successful. The MDP has reported an increase in sickness level due to muscular skeletal issues and this is being actively monitored by the MDP Management Board.

8.3 The MDP have recently commenced a hearing programme with ATOS alongside the work being undertaken by the OHS nurse to capture relevant medical data and monitor the hearing requirements for all firearms officers and dog-handlers by undertaking audiometric testing. Fitness testing for all operational MDP personnel and the reinstatement of the OHS nurse on a full-time basis, with an assistant at MDP HQ, will help enable the situation to be kept under surveillance.

Table of individual TLB/TFA performance against HS&EP Target 6: Compliance:	
Element of target 6: Compliance	HOCS
Applicable Legislation, Defence Regulations, Policy and Guidance	4
Information Management	4
Organisational Leadership, Culture, Capability and Change Management	4
Personnel Competence and Training	3-4
Risk Assessments and Safety Cases	4
Equipment/Material and Infrastructure Design and Manufacture	3-4
Equipment/Material and Infrastructure Maintenance	None given
Supervision and Control of Activities	4
Incident Management and Learning from Experience	4
Emergency Arrangements	4
Self-Assurance	4

* Para 4 of main report refers.

APPENDIX 1.8: DEFENCE SCIENCE AND TECHNOLOGY LABORATORY (DSTL)

1. **Performance against HS&EP Targets.** DSTL as a Trading Fund of the MOD, has continued to improve its performance with respect to Health, Safety and Environmental Protection (HS&EP) over the last financial year whilst operating in hazardous environments over 3 main sites. Dstl strives to be a high performing organisation recognised for our safe delivery of important project work for our customers. The ability to assess our performance means Dstl is well aware of the different aspects of operation with respect to HS&EP; where we are nationally leading the way and areas for improvement.

1.1 Dstl assessed internally in February 2014 that a performance score of 4 has been achieved for the majority of the MOD criteria, room for improvement and assessment of scores below the target of level 4 was identified in the following areas.

- Information Management
- Personnel Competence and Training
- Equipment/Material and Infrastructure Design Maintenance
- Incident Management and Learning from Experience

1.2 Dstl is leading in some aspects of performance across the criteria, and feels it has particular strength in Self-Assurance.

1.3 Dstl's introduction of the Duty Holder construct during the performance year has strengthened the management and leadership of safety and environmental protection. This is supported by a mature structure of Safety Health Environment and Fire (SHEF) Management Committee and specialist sub-committees which look after high hazard areas of Dstl's operations. Good oversight is achieved in the management of HS&EP risk and a review of incidents and investigations.

1.4 Dstl has now completed the Health and Safety Laboratories Safety Climate Survey over the two last performance years, with consistent results displayed between the two surveys. The results from these surveys were used as evidence against the performance criteria. Dstl was at above average in 6 of the 8 elements. Action is being taken to improve the elements below average which covered engagement and resourced for Health and Safety.

1.5 High confidence in Dstl's management arrangements relating to self-assurance was evidenced in the self-assessment. Several internal and external audits (including by the HSE) of controls were conducted in the performance year, substantial assurance was achieved in most audits, with corrective action completed for audits which provided limited assurance.

1.6 Dstl has a comprehensive management system containing information related to HS&EP, which is reviewed frequently. However, a plan has been put in place to address weaknesses in Information Management; which includes an enhanced communication strategy, a review of HS&EP documentation in consultation with users and computer based environmental awareness.

1.7 The mixed high hazard nature of the work undertaken at Dstl means there is a high reliance on employing and training suitably qualified and experienced personnel (SQEP). Significant efforts have been placed on formally documenting competency across Dstl over the past performance years. All staff working with explosives have been assessed against the Explosives Substances and Articles National Occupational Standards (ESANOS) which is seen as best practice. Work is ongoing within the other hazard areas to bring the documentation up to similar standards.

1.8 The site rationalisation programme which Dstl is investing in will provide an opportunity to improve the operational infrastructure and replace ageing building stock. Active engagement has taken place across the HS&EP community in the design of the new facilities. This investment should result in reduction in the maintenance schedule and defective equipment/plant due to high hazard work being conducted in modern purpose built facilities.

1.9 Dstl's investigation process has been the focus of improvement over the performance year; the incident data has been used more extensively and communicated more widely across the organisation. Dstl wishes to improve its sharing of lessons after incidents and has made enhancements, based on the communications strategy, in the last two months of the performance year but needs to consolidate and sustain this improvement into the future.

2. **Achievements/Successes.** Dstl has achieved a lot with respect to HS&EP over the reporting year. There have been no major accidents or incidents on-site, although one major injury during support to operations in Afghanistan. Dstl has worked hard to continually improve its safety performance whilst maintaining successful delivery of customer work in high hazard environments.

2.1 Dstl have initiated improved safety performance reporting as part of the Executive Business Performance report which covers such topics as inspection, audit compliance, processes and safety culture which greatly supports an evidence-based approach to safety risk management.

2.2 In the Microbiological area there was a successful HSE inspection of the containment level 4 area, with particular praise given to the workplace supervisors.

2.3 12 Dstl staff volunteered to be externally trained to conduct ISO14001 audits. This has helped to raise environmental awareness across Dstl and demonstrates the desire to continually improve the environmental performance.

2.4 All accounting for Dstl's holdings of explosives has successfully migrated to a single electronic accounting system. The system enables accurate and timely reporting of holdings of explosives.

2.5 Competency profiles continue to be established for roles working in high hazard environments. In year, profiles have been established for senior managers with explosives responsibilities, trials managers, and chemical handlers.

3. **Fatalities.** There have been no fatalities as a result of work conducted at Dstl in this or the last reporting period. Dstl continues to thoroughly investigate any incident which has the potential to result in a fatality to ensure that improvements can be made to prevent serious injury in the future.

4. **Enforcement Action (Crown Censures, Notices and Other Regulatory Interventions).** Dstl received an improvement notice on the 17 January 2014 as a result of a Major Accident Control Regulations (MACR), JSP 498 audit of the Fort Halstead site. The action plane to remedy the non-conformances is being completed to the satisfaction of DSEA; at the time of writing only 2 remain outstanding.

4.1 During the previous reporting period in July 2012 the HS Area was subject to a Formal Notice of Prohibition. The corrective actions required have now been completed and the Formal Prohibition Notice has been lifted. The HS area started training and rehearsals using inert munitions at the end of the performance year.

5. **Issues and Risks.** Dstl has a corporate risk relating the HS&EP, which is that a significant, avoidable Safety Health, Environment or Fire incident occurs. This risk is managed by the Executive Director led Safety Management Committee, which monitors the performance of the control measures and mitigation plans put in place to minimise the risk occurring.

5.1 Risks related to Health, Safety and Environmental protection are captured operationally and by the specific safety consultative committees and escalated where appropriate. The corporate risk is currently being managed to reduce the risk to a tolerable level, the mitigation plans do not identify any significant issues and risks.

Table of individual TLB/TFA performance against HS&EP Target 6: Compliance:	
Element of target 6: Compliance	DSTL
Applicable Legislation, Defence Regulations, Policy and Guidance	4
Information Management	3
Organisational Leadership, Culture, Capability and Change Management	4
Personnel Competence and Training	3
Risk Assessments and Safety Cases	4
Equipment/Material and Infrastructure Design and Manufacture	4
Equipment/Material and Infrastructure Maintenance	3
Supervision and Control of Activities	4
Incident Management and Learning from Experience	3
Emergency Arrangements	4
Self-Assurance	4

*Para 4 of main report refers.

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APPENDIX 1.9: DEFENCE SUPPORT GROUP (DSG)

1. This report covers the activities undertaken by the Defence Support Group (DSG) in providing the Ministry of Defence (MOD) with secure access to assured onshore capacity and capability for the through-life maintenance, repair, overhaul, upgrade and procurement of support services for defence equipment. DSG operations are carried out at ten main locations with detached teams located in army units across the UK; DSG also continues to maintain a significant presence in Camp Bastion, providing continued support to front line operations. There are no nuclear, explosive or bulk fuel type activities within DSG.
2. In reporting year 2013/14, DSG staff carried out a full review of business system policies and processes and management reporting, to confirm continued compliance with customer, statutory and legal requirements, and to identify and implement opportunities for improvement.
3. **Performance against HS&EP Targets.** Following continued monitoring and assessment of performance, it is considered that DSG has achieved level 4 performance for all of the DP13 targets. DSG has a robust HS&EP management system in place which is certified to ISO 14001 and BS OHSAS 18001. The incident reporting system is mature and the internal audit function has been recently reviewed, with improvements implemented to incorporate a renewed focus on product and process audits.
4. **Achievements/Successes.** DSG has had an extremely challenging year in terms of supplying UOR equipment to the front line, supporting Op Herrick in Camp Bastion in particular. An area of focus has been the newly formed Herrick Exchange Point (HXP) situated at DSG Warminster and the old RAF Lyneham site, acting as a repository for returning vehicles from the front line. To satisfy the contractual requirement for DSG to conduct an annual independent governance audit of DSG operations at Camp Bastion, an audit was carried out in March 2014. The audit was carried out to ensure compliance with DSG Business System requirements; it was confirmed that DSG operations at Camp Bastion continue to meet the requirements of the DSG Business System.
5. The Agency was subject to two surveillance visits by our third party assessor, LRQA. There was no significant rise in the number of non-conformances, and no major issues identified in relation to HS&EP, all sites continue to maintain their certification to ISO 14001 and BS OHSAS 18001 as required by the Corporate Strategic Plan.
6. DSG has initiated a Stress Management working group comprising representation from Corporate Compliance, HR Strategy, Management and Trade Unions Representatives. The group meets regularly to review Stress Risk Assessments and management system arrangements in place for both adequacy and effectiveness.
7. There have been no significant environmental issues this financial year and all consents and permits have been renewed without issue. Where considered possible, waste is reused or recycled. Energy continues to be monitored to identify opportunities to reduce the carbon footprint, taking into account additional UOR workloads.
8. **Fatalities.** There have been no fatalities in DSG during the reporting period. The Major RIDDOR's reported have reduced from six in 2012/13 to three for this reporting year; reported incidents being two fractured elbows and a fractured wrist. The RIDDOR reportable events have reduced from last year, whilst reported incidents (non-RIDDOR) have reduced by 15% in comparison to 2012/13. There have been no significant

environmental incidents on any of the DSG sites.

9. Enforcement Action (Crown Censures, Notices and Other Regulatory Interventions. DSG was subject to one HSE visit in the reporting period, following a Hand Arm Vibration Syndrome F2508A RIDDOR at DSG Donnington in April 2013. The visit was a routine investigation, and other than a few minor administrative issues, which were rectified immediately no concerns were noted and no further action taken.

10. Issues and Risks. Risk recorded in DSG Risk Management System relating to the potential loss of third party certified standards, i.e. ISO 14001 and BS OHSAS 18001, continues to be monitored at risk management meetings and remains designated as low.

11. An Organisational Safety Assessment (OSA) relating to the potential sale of DSG has been prepared and has been submitted in draft format to the Defence Environment Safety Committee (DESC). The OSA will be subject to continued monitoring at DESC meetings, and will be updated as necessary to detail organisational arrangements to minimise the impact on HS&EP arrangements resulting from any potential sale of DSG.

12. There are no significant risks for evaluation at present; all business risks related to HS&EP systems and performance are controlled and present a low risk. DSG is on target to meet all of the Greening Government Targets for 2015. Evaluations of legal compliance continue across the business and no major findings have been highlighted.

Table of individual TLB/TFA performance against HS&EP Target 6: Compliance:	
Element of target 6: Compliance	DSG
Applicable Legislation, Defence Regulations, Policy and Guidance	4
Information Management	4
Organisational Leadership, Culture, Capability and Change Management	4
Personnel Competence and Training	4
Risk Assessments and Safety Cases	4
Equipment/Material and Infrastructure Design and Manufacture	N/A
Equipment/Material and Infrastructure Maintenance	4
Supervision and Control of Activities	4
Incident Management and Learning from Experience	4
Emergency Arrangements	4
Self-Assurance	4

* Para 4 of main report refers.

APPENDIX 1.10: UK HYDROGRAPHIC OFFICE (UKHO)

1. UKHO is a Trading Fund Agency with 1000 staff across a broad range of disciplines including; chart compilation; sales & marketing; production & despatch; defence geographic intelligence, programme & project management; Information Management Technology (IMT) and Corporate Services. Safety, Health & Environmental Protection is part of an Assurance and Resilience Division whose Head sits on the Executive Committee and which also includes Risk, Security, Information Assurance, Business Continuity and Product Safety and Quality. The site occupies 32 acres on the outskirts of Taunton in Somerset and is predominantly an office based environment with print production; finishing and warehouse facilities (numbering approximately 200 staff) being concentrated in one building. There are a total of 13 inhabited buildings with an approximate total working floor space of 32,000m².

2. The following summary report describes our HS&EP status to be submitted to the Defence Board in July 2014.

3. **Performance against HS&EP Targets.** The UKHO has achieved an overall compliance rating at level 4 for 2013/14.

4. Compliance with each of the six target criteria is fully appraised and evidenced in the performance matrix document summarised below:

1. **Learning:** Maturity Level 6
2. **Leadership & Culture:** Maturity Level 4
3. **Competence:** Maturity Level 4
4. **Hazards and Risks:** Maturity Level 4
5. **Compliance:** Maturity Level 4 overall.

5. **Achievements/Successes:**

For the third year in succession Hawse has received a Gold Award standard with RoSPA . Implementation of a web hosted H&S management toolkit is now in its second year. Coordinating and monitoring records and reports over a wide area is now much simpler where before they were organised manually; it includes Accident & Incident reporting and recording; completion of DSE self assessment forms; Fork Lift Truck maintenance; Auditing and Inspection management; compiling monthly reports to senior management.

6. **Fatalities.** Nil return. (Minimum to zero likelihood). Risks where potential harm to individuals have been identified are fully mitigated. The consequences of failure do not include an increase in the likelihood of death.

7. **Enforcement Action (Crown Censures, Notices and Other Regulatory Interventions).** Nil return.

8. **Issues and Risks.** SPOF for SH&EP advisors is being included in a succession plan report currently being compiled by ExCo Board.

No major organisational changes affecting HS&EP are being undertaken. BAU risks are recorded in local Risk Assessments.

The following details have been included in the corporate risk register; they are ongoing and fully mitigated.

Risk

Non compliance with the Health & Safety at Work Act (HASWA) 1974 and Management of Health and Safety at Work Regulations 1999; these impose a legal obligation on all organisations to provide a safe working environment, conduct risk assessments throughout the business and protect those on the premises and those journeying on behalf of the organisation from harm SFAIRP.

Impact

I:

Could potentially be found liable for incidents arising from unsafe working practices or environmental breaches

Could be in breach of my delegated responsibility to the Secretary of State to ensure a healthy, safe and secure working environment

The UKHO could suffer:

Significant adverse publicity for UKHO (reputation)

Crown censure

Risk of compensation claims at County Court

Mitigation

I delegate responsibility for ensuring safe working practices and for implementing environmental safeguards to my Line Managers who are to conduct risk assessments accordingly. Policy and guidance is issued to ensure they understand this.

Delegated responsibility is also made to SQEP in my HS&EP team to oversee and monitor general compliance with H&S.

HS&EP team are to: communicate procedures and policy to staff via embedded communications procedures; conduct audits and inspections; provide training for staff; arrange and attend committee meetings. I also personally conduct regular site rounds accompanied by the Head of SH&EP.

Residual Risk = Green.

Table of individual TLB/TFA performance against HS&EP Target 6: Compliance:	
Element of target 6: Compliance	UKHO
Applicable Legislation, Defence Regulations, Policy and Guidance	6
Information Management	4
Organisational Leadership, Culture, Capability and Change Management	4
Personnel Competence and Training	4
Risk Assessments and Safety Cases	4
Equipment/Material and Infrastructure Design and Manufacture	4
Equipment/Material and Infrastructure Maintenance	Not scored
Supervision and Control of Activities	4
Incident Management and Learning from Experience	4
Emergency Arrangements	4
Self-Assurance	4

* Para 4 of the main report refers.

APPENDIX 1.11: OIL AND PIPELINES AGENCY

1. The Oil and Pipelines Agency (OPA) manages the Government Pipeline and Storage System (GPSS) and the Oil Fuel Depots (OFDs) in the UK, on behalf of its Departmental Stakeholder, the Ministry of Defence (MoD). In addition to fulfilling its defence obligations, the agency provided commercial access to the GPSS for supply of the jet fuel to most major airports in England.

The final report on the Buncefield incident published in 2011 highlighted a number of lessons learned and changes in regulatory oversight. For OPA, whilst initiating the Industry recommendations for Process Safety Leadership, there has been a continual programme of Competent Authority interventions following the issue of several Enforcement Notices in the previous year. The sustained focus on its Control of Major Accident Hazards (COMAH) compliance and improvement programme has seen substantial upgrading of its operating practises and asset integrity. The ongoing aggressive timetable, commitment, investment and improving relationship with the Competent Authority has brought the GPSS and OFD operations and assets more in line with the rigorous application of the standard in hazardous industries. We and Costain, our O&M contractor, are working closely together and are fully committed to achieving the standards expected of a modern COMAH operation.

Background

Government Pipelines and Storage System (GPSS) – The GPSS comprises 2,000 kilometres of operating pipelines and 16 COMAH registered storage sites. The operational storage depots are connected to the pipeline system which receives supplies from some of the major refining centres and port areas in England. The GPSS receives, stores, transports and delivers light oil petroleum products for military and civil users.

Naval Oil Fuel Depots (OFDs) – There are 6 COMAH registered Oil Fuel Depots (OFDs) in the UK owned by the MOD but managed and operated by OPA since 2011. The OFDs receive, store and issue middle distillate fuels to support Naval Command.

Operation and Maintenance – OPA's asset is national, stretching from Cornwall to Scotland, and requires ongoing operations, maintenance and capital investment programmes to warrant its safe and efficient continued operation. Costain is responsible for the operations and maintenance for the entire GPSS network and statutory maintenance only on the OFDs, where operations are managed by OPA.

2. Achievements/Successes.

2.1 Continuous Improvement Project. Due to a number of interventions from the Competent Authority (CA), related to Control of Major Accident Hazard (COMAH) regulations, the Agency acted urgently to improve its processes, procedures, and systems in order to mitigate further enforcement activity and to prevent unsafe occurrences (major accidents). This action is to be delivered via a three year change programme (the Continuous Improvement Programme (CIP)), supported by external Subject Matter Experts (SMEs). As a compliance-type programme the CIP has been instigated at considerable pace, and to a tight schedule. As a result the programme has delivered on plan significant improvements with many projects/processes being recognised as industry exemplars by the Competent Authority.

2.2 Safety Coaching & Leadership. This Safety Coaching & Leadership work-stream is working to ensure the CIP is gaining traction and becoming embedded within the OPA and Costain organisations. In addition the one to one mentoring provided to leaders and employees alike provides the ability to not only articulate the key fundamentals of COMAH through discussions with the CA but increases the level of adherence to policies, procedures and processes ultimately achieving greater compliance in a tighter timescale.

2.3 Risk Management Enhancement. The enhanced risk register process developed in consultation with key stakeholders as well as utilising the findings from a recent DIA audit provides greater assurance due to visible risk management and delivery of mitigating actions to reduce the risk profile of the business.

2.4 Competent Authority Relationship. Formal communication with the Competent Authority has markedly improved, achieved through delivery of programmes and actions but also through improved personal relationships, preparation for intervention meetings and management of communications.

2.5 Operational Performance. Even with the high levels of workload and Competent Authority scrutiny the Agency has continued to supply fuel through its GPSS system without disruption to military and commercial customers.

3. Fatalities. None to report.

4. Enforcement Action (Crown Censures, Notices and Other Regulatory Interventions). Currently there are 5 open improvement notices, with 6 improvements notices closed out during the period.

5. Issues and Risks.

5.1 Current Level of Risk. The current level of risk will increase over the coming months due to the number of concurrent programmes being run, specifically the potential sale of the GPSS and potential extraction of the OFD operations. The risk management process has been reviewed and updated to deliver active engagement in the process at all levels within the organisation.

5.2 Containment . A key area of significant activity relevant to COMAH compliance is focusing on storage tank containment systems and a programme of activity focusing on further improvements to assure asset integrity is ongoing.

5.3 Environmental Risk. As part of a Chemicals and Downstream Oil Industries Forum (CDOIF) Working Group the OPA has been party to a new methodology to assess the environmental risk posed by process industry storage assets. The Agency is leading the industry in using this new methodology to inform the improvements required in primary, secondary and tertiary containment systems; see above. The output from this work is funded and delivery is ongoing and will extend over several years. The Environment Agency is working closely with us to prove the efficacy of the approach.

APPENDIX 2.1: MILITARY AVIATION AUTHORITY (MAA)

Introduction

1. The following is the MAA's comment on the air related safety issues outlined by TLBs in the provision of their annual HS&EP assurance reports. Their scope is considerable and, in comparison with the previous year, they show increasing attention and comment on the air domain. This is to be commended. In focussing on the submissions, this paper provides comments in advance of the MAA's more detailed Annual Assurance Report to the Secretary of State. While making reference to some of the details it will identify the notable trends and shared issues.

Issues

2. A number of themes can be drawn from this year's reporting:

a. **SQEP.** The issue of SQEP shortfall permeates through all of the reports and is clearly identified by the TLBs as a significant issue. Understanding the issue is but one step to resolving it and while there are positive signs that progress is being made in this area, it is too early to suggest that it is being resolved effectively. This is an area where the MAA will provide more detail in its Annual Assurance Report and is also the focus of the ongoing assurance activity being conducted by the MAA on the manning organisations. Recognising the potential safety implications and mitigation is critical activity hence greater detail here is to be encouraged.

b. **Duty Holder Facing.** The support provided by Duty Holder Facing organizations has been challenged by some of the TLBs. The ability, or lack thereof, of aviation Duty Holders to influence these areas has created concern in the regulated community and it is now identified as a risk; infrastructure maintenance, development and compliance are examples. With current resource constraints the solution will not be quick, but the reports show that this issue is clearly identified and is being grappled with. Similarly, Duty Holder Facing organization reporting acknowledges this; their change models and the adoption of Duty Holder constructs are steps towards a remedy. The DIO is one example where the MAA will remain closely engaged with this issue; infrastructure support has been discussed at the MAA Operators Council and is an element of planned assurance activity.

c. **Air Safety Culture.** The reports make encouraging comment on the maturity of safety culture. This reflects accurately the MAA's oversight and reporting of this area. TLBs should however be encouraged to provide greater evidence of the root and branch uptake of this change in culture. The provision of evidence appears, on occasion, a little too reliant on higher level statements and is less clear on how this permeates through the management layers. Nonetheless, all areas reflect an improvement while accepting more is to be done.

d. **Safety Enhancements – Equipment.** Some of the TLBs have commented on future Air Safety equipment enhancements. Support to the Helicopter Safety modifications programme or the adoption of Collision

Avoidance Systems make encouraging reading but the output is still to be realised. The rate of delivery and adoption of such equipments will require close attention from the Duty Holders if it is not to slip. This is also an area where the MAA will continue to monitor closely.

e. **Reporting and Analysis.** There continues to be increased air related reporting and the Air Safety Information Management System remains the focal point for this activity. However, while rates are up, the investigation and closure of reports remains a pace behind. This is an area that the regulated community is slowly closing but it will be critical if the community is to fully exploit the analysis of information provided. The effective and shared analysis of information is also an area where the MAA will seek improvement over coming months. The assurance reports identify improvements in this area and this has been noted by MAA oversight activity.

f. **Risk Management Training.** Assurance activity across the regulated community has shown a lack of consistency with regard to risk management and more specifically, its training delivery. The MAA identified the issue this reporting period and has begun consultation with the air community in order to address this through the provision of bespoke Defence training. It is an area of in-year activity and the MAA, in consultation with the TLBs, intends to develop a pilot course for delivery by the end of the year.

Conclusion

3. Generally the reports reflect the current position in a balanced manner though there is a natural tendency to reflect 'a glass half full rather than one that is half empty'. The evidence provided is not unreasonable and on occasion hints at some of the future challenges. From an Air Safety perspective, the issues of a lack of SQEP and the supporting role of the Duty Holder Facing organizations are clearly identified in the assurance reports. Both are areas where the MAA is actively engaged. The reporting of incidents, the analysis of associated information and the ability to use this to fully support effective risk management are all showing development and will continue to draw support and oversight from the MAA.

APPENDIX 2.2: DEFENCE NUCLEAR SAFETY REGULATOR (DNSR)

Defence Performance

1. The arrangements and management of nuclear safety across the Defence Nuclear Programme (DNP), comprising both the Naval Nuclear Propulsion Programme (NNPP) and the Nuclear Weapon Programme (NWP), must meet the exceptionally high standards required by applicable legislation, Defence policy and of the nuclear industry. DNSR has made an evidence based judgement that those responsible for delivering the DNP, over the period 1 April 2013 to 31 March 2014, have satisfactorily achieved these exceptionally high standards of nuclear and radiological safety for the submarine crews, the defence workforce, the public and the protection of the environment.

Issues

2. The 2 key strategic issues from regulation of the DNP in 2013/14, requiring sustained attention to ensure continued safe delivery of the DNP over the medium to long term are:

a. Nuclear Competent Personnel. The ability of the Department to sustain a sufficient number of nuclear suitably competent personnel, also termed nuclear suitably qualified and experienced personnel (NSQEP), is a long standing issue and is again raised as the principal threat to the maintenance of safety in the DNP. A number of focussed initiatives continue but pressure from the civil nuclear market will continue to drive vulnerability in this small and highly skilled group. Safety has not been compromised, but the loss of resilience increases the likelihood of project delays.

b. Organisational Capability. The risk from strategic Organisational Change has reduced from last year. A process has been implemented to allow the safety implications of such strategic changes to be reviewed, prior to implementation, at an appropriate level within the MOD and the way ahead with 2 significant strategic organisational change projects has been agreed. However, continued Duty Holder involvement is required to ensure that organisation capability remains robust and that any changes to organisational arrangements are assessed for their impact on safety prior to implementation.

3. As per the DNSR Annual Report 2012/13, additional strategic issues are: Ageing Plant, Facilities and Infrastructure; Safety Case Improvement and Safety Management Arrangements; Quality of Product; Transport and Package Approval, Nuclear Liabilities and Fukushima Response. Recognising the strategic nature of all 8 of these issues, it is to be expected that improvements will be delivered over a number of years. DNSR will continue to undertake targeted inspections and audits to confirm appropriate action is being taken and to monitor progress.

Regulatory Health

4. Overall, the health of the DNSR is assessed as satisfactory: DNSR has the resources, both internally and by contract, to undertake the full range of its responsibilities and has an appropriate regulatory framework, as assessed by an external regulatory review. The objective of the external review, which was based upon the established practice of the International Atomic Energy Agency (IAEA) Integrated Regulatory Review Service (IRRS), was to compare the DNSR regulatory framework with relevant national and international guidelines. The review team considered that the regulatory framework is appropriate, that DNSR is operating effectively and that resourcing was then adequate. As

expected, the review team identified some opportunities for improvement, particularly relating to strategic planning and consistency of approach within DNSR. An independent reviewer had oversight throughout; he considered that the report is a fair and reasonable summary and agrees with its conclusions and recommendations. Work is well underway to address the review team recommendations and suggestions.

5. One of the key challenges to DNSR, as it is to the wider DNP, is the availability of suitably qualified and experienced personnel to regulate all aspects of the DNP. To mitigate this risk, DNSR has had a training placement to the civil regulator, the Office for Nuclear Regulation (ONR), to gain experience and develop one of its more junior inspectors. In addition, a development post has been established that will place a trainee in various aspects of the NWP, starting in DNSR, to develop his/her nuclear weapon NSQEP across the programme. A further placement from ONR into DNSR is being actively pursued to enhance the understanding and coherence at the inspector level between DNSR and ONR.

6. Over the reporting year, DNSR has undertaken over 60 planned inspections, reviewed over 110 documented safety submissions, approved 7 transport packages for the transport of Defence nuclear materials, permissioned 50 significant nuclear activities and assessed 19 Nuclear Emergency Response demonstration exercises. DNSR has also produced updates of Joint Services Publication (JSP) 518 for the Regulation of the NNPP and JSP538 for the Regulation of the NWP with publication due by July 2014.

APPENDIX 2.3: DEFENCE MARITIME REGULATOR (DMR)

1. **Defence Performance.** This is the Regulator's report on Defence-wide performance in safety and environmental protection for all maritime activity posing a risk to life or the environment. The DMR's Annual Report addresses the DMR's three Regulatory Regimes (MOD Shipping, Diving and Ports) and considers the regulatory health of each DMR Regime between 1 April 2013 and 31 March 2014. It is summarised here.
2. The DMR consists of a MOD Shipping team and a Diving Standards Team (DST). The MOD Shipping team consists of the SSMO (policy and secretariat) and an embryonic MOD Shipping Inspectorate. The DST is led by the Superintendent of Diving. Assurance of Port safety is gained from the Director Naval Bases staff, in Navy Command. DMR's ability to deliver assurance is reported under Regulatory Health.
3. TLB's Annual Reports offer summaries of significant progress within the year, allowing movement to maturity Level 4 compliance to be claimed by many Senior and Operating Duty Holders. The DMR Report draws its evidence of the health of MOD Shipping from published studies and information supplied by Operating and delivery level Duty Holders (incl. 2nd party Assurance from Duly Authorised Organisations¹⁸ (DAO)). This data includes some evidence discussed in this Annual Report that Level 3 compliance is patchy. The embryonic DMR cannot offer direct objective evidence, by independent 3rd Party Assurance as to which is the more accurate view. It is therefore prudent to remain vigilant and to challenge assumptions.
4. **Issues.** The themes within this report remain are consistent with DMR's first Annual Report and are:
 - a. *Adventurous Training:* The DMR has supported the Service Inquiry (SI) following the death of Lt Moran in Egypt. Adventurous Training (AT) is conducted on duty and therefore, under statute, this was a death at work. The SI has prompted several lines of wider investigation into the Governance of AT: the consistency of material support, the clarity of Duty Holding, impact of reducing numbers of SQEP, what standards are appropriate and the reporting burden;
 - b. *Diving inspections:* The DMR has supported Army, Navy and Joint operations. DMR's supply of BR9147 Level 2 Assurance to support Op KIPION within a 32-week cycle, has been at the expense of DMR's own 3rd party audit and inspection programme (BR9147 Level 5 Assurance). Additional demands in support of specialist military capabilities, responses to the SI above and to earlier audit findings across all Commands (incl. earlier SI) lead DMR to conclude that there is insufficient numbers of divers within each Command to deliver their assurance and operational outputs;
 - c. *Organisational Assurance:* DMR has supported change programmes including the DE&S Material Strategy and work to define Duty Holder roles and responsibilities. Access to these change programmes has allowed robust discussion on safety liabilities and governance. The maritime safety & environmental protection implications of each organisational change are yet to be fully demonstrated but draft Organisational Safety Arrangements are under active review by the DMR;

¹⁸ The Duly Authorised Organisations supporting DMR are the Naval Authority Group, Flag Officer Sea Training (SARC/BOST) reports and Naval Base Waterfront Coherence & Assurance Inspector.

d. *Situational Awareness, Openness, Metrics and Management Information (MI)*: All Duty Holders need sufficient information to show they are meeting Regulations (e.g. Risk Control Systems of JSP430), appropriate tools to assess risk and collate evidence for annual assurance (e.g. Goals of JSP815, Leaflet 8). DMR seeks better visibility that management systems are properly working. The lessons already gained (see e, f & g) highlight the importance of each ODH developing better MI and analysis tools than has proven possible in the “Smart Contract 14” between DE&S and Commands. Better situational awareness will improve understanding of cause and effect. DMR recognises its own role within the current year; in supporting designers of governance arrangements to define better metrics from 2015; in publishing guidance; and in Duty Holder training, so the appropriate tools are available;

e. *Safety Cases*: It was stated that all TLB areas reached maturity Level 3 in 2012/13, with full safety cases in place. Tasks under the DE&S’ Maritime Safety Development Programme (MSDP) to identify management system and safety case best practice, have identified inconsistencies in platform-level evidence and several ship systems and equipments with no summary Safety Case Report¹⁹. There are also significant omissions in Boat (Platform) safety cases²⁰. The ACNS (Support) has commissioned work, proportionate to the risk, to address identified shortfalls and with the backing of DMR. This approach should be adopted universally so that other ODH know and accept the risks they carry for the activities they conduct. DMR will be writing to each ODH accordingly;

f. *Vessel Fragility*: The withdrawal of a high-readiness frigate from tasking following a serious fuel spill and the subsequent ODH Investigation attracted DMR’s attention. An initial and targeted ODH investigation made good progress but its conclusions highlight significant issues around conflated risks from manpower gapping, shortages of competent persons (aboard and ashore), high incidences of low-level material defects all on an ageing platform. The ODH is addressing both the tactical level recommendations and drawing lessons of the organisational implications. This is evidenced through the significant volume of work being conducted on minimum manning levels, Duty Holder constructs, revised risk frameworks, Operating Safety Cases and Risk Cases, the assurance processes, and the support improvements being made under the Support Improvement Programme & Project Faraday. All these, and other work strands, contribute directly to addressing the apparent systemic weaknesses and reversing the normalised acceptance of deviance identified. Noting any individual incident can be easily dismissed as a one-off, DMR considers the attention given to the incident above to be merited. Each phase has been closely monitored and the ODH’s findings that each area is not uncommon, suggest an Organisational Fragility to DMR.

g. *Organisational Fragility*: The core themes of vessel fragility, aging systems, SQEP shortfalls and high operational tempo reflect patterns noted by other recent independent audits and noted by DMR’s own Advisory Visits. There is evidence that the lessons of Haddon Cave have been taken onboard by Navy Command in that the system of Duty Holders did prevent a more serious incident, but the root causes of

¹⁹ MSDP Task 219 recommends refreshed safety cases to identify the activity and high-level systems safety cases that underpin it

²⁰ JSP430, Issue 2, (2002) required 100% of all projects to hold safety cases by 2005. Correspondence between DMR Navy Command and DE&S shows, in early 2014, only 13 of the 90 classes of boats and small craft held any form of Safety Case. This is despite assurance that compliance had been previously achieved. DShips has demonstrated a get-well programme is now in hand.

the Haddon Cave Review²¹ must not be forgotten. In particular, it is concluded that the current understanding of risk aggregation is inconsistent and safety & environmental risks cannot be managed in isolation from wider activity as they are closely coupled and interact with each DLOD. To this end, DMR intends to engage with each ODH to discuss their risk management protocols and understand what levels are currently tolerated and what should exist; this will be done in parallel with the ongoing work by NCHQ to address the strategic implications arising from the ODH Inquiry.

5. **Regulation Policy.** The DMR holds Regulatory responsibility for all Maritime Activities but limits its focus within three previously defined Regulatory Frameworks. Strong support from stakeholders throughout the review of the Regulatory models allowed:

- a. Publication of the new regulatory framework for MOD Shipping in Dec 13 as JSP430 Part 1, issue 5 and Part 2, issue 4. This work programme revised and aligned MOD Shipping policy with the International Safety Management Code (ISM Code), SOLAS and MARPOL. Further guidance will be published in the Autumn.
- b. The largest DMR Duly Authorised Organisation (the Naval Authority Group) to continuously assure the Regulatory requirements for the materiel certification of MOD ships. The NAG reviews its policy annually (JSP430 Part 3 and MOD Maritime Explosive Regulations in JSP862).
- c. The second framework for Diving regulatory policy to be delayed due to DST's constrained resources. These Regulations will be published in the autumn²².
- d. The third framework formed from the Dockyard Port Marine Safety Policy of Director NBOC, will be republished as a DMR authorised JSP. This policy formalises a common approach across the three UK Dockyards and military bases overseas.

6. **Regulatory Health:** In the reporting period, the DMR's Diving Standards Team (DST) has issued five Prohibition Notices (PN) and two Improvement Notices (IN) in 2013. The team is resourced to conduct 3rd Party Assurance but is stretched, due to delivery of several layers of 2nd Party assurance simultaneously. The effects on their output and their morale require this situation to be resolved urgently. Although the approval of JSP430 Parts 1 and 2 allows Regulation of MOD Shipping to commence, the DMR's MOD Shipping Inspectorate has itself been significantly under resourced, rendering it unable to deliver Regulatory activity against the themes reported above. Consequently, DMR cannot offer fully independent assurance, react to risks identified by MI systems or other intelligence sources, conduct audit, inspection or assurance of compliance to the Regulations. A business case for the necessary extra resources has recently been approved and recruitment will commence from mid-2014.

²¹ The Haddon Cave Review's 7 pillars are: the intelligent customer (10 principles); Parallels to Columbia space shuttle (12 principles); Safety Culture (learning, questioning, flexible, just, reporting); constant sense of unease; The LIPS Principles; the SHAPED Safety Case; the risk of the comfort blankets of Consensus, Compliance, and Complexity.

²² Diving Regulations will be in JSP433 (replacing the existing JSP375 Leaflet 29), The supporting Defence Codes of Practice (DCOPS) will also be republished as JSP917 (Diving for Adventurous Training) and BR2806 (Military Diving) in the autumn.

APPENDIX 2.4: DEFENCE ORDNANCE, MUNITIONS AND EXPLOSIVES REGULATOR (DOSR)

1. I am required to issue an annual regulator's report that provides an assessment of safety and environmental protection performance for OME activities within Defence and dangerous substances present on MACR qualified Defence Establishments. This report covers the activities of the DOSR from 1 Apr 13 to 31 Mar14 and the executive summary provides a general statement of performance, key issues and a summary of regulatory health.
2. DOSR regulates explosives activities in accordance with JSP390, laser safety, JSP403 land ranges safety JSP482 MOD explosives regulations, JSP520 OME Safety management system. In addition DOSR regulates activities involving dangerous substances including explosives which are present on MACR qualified establishments in accordance with JSP 498 Major Accident Control Regulations.
3. With the exception of Nuclear propulsion and weapons, OME represents the single greatest potential for hazard generation within the MOD. How OME safety is managed and delivered should be of concern to almost all the TLB areas. The lack of accidents involving OME (other than in training or use) probably results in most TLBs not appreciating perhaps the potential for hazard from their OME, but it should be realised that it is the attention to detail at the working level which maintains this happy state of affairs. Situations have arisen within the commercial sector where safety management failings have led directly to realisation of hazard in circumstances where otherwise one could have justifiably assumed that everything was under control. The MOD cannot afford to rest on its laurels as far as explosives safety is concerned.

Defence Performance

4. Within the OME and MACR community those responsible for delivering OME safety have maintained a generally acceptable standard. Many of the issues raised in this report continue themes from the previous DOSR Annual Report. Whilst progress with resolving issues has been made, duty holders will need to sustain priority for those issues until they deliver benefits.
5. All DOSR JSPs are being reviewed and reformatted to meet the new format given by DRU and the changes mandated in JSP815. This is being coordinated by the DOSR Technical Author's Forum
6. DOSR have been involved in the comprehensive HSE review of UK Explosives Legislation (ELR) over the past 24 months. It is anticipated that the forthcoming Statutory Instrument called "Explosives Regulations 2014" will come into force in October 2014. DOSR do not expect any difficulties arising from the introduction of the new legislation since the ELR is primarily bringing together most of the civil explosives regulations under one banner. The major effect on our regulations is where we make specific reference to existing regulations. There are no substantive changes to the civil policy or standards.
7. EU Directive Seveso 3 came into force in July 2013 as a result of which the Control of Major Accident Hazards Regulations (COMAH) are being revised. MOD procedures will require improvement in a number of areas particularly with respect to information for the public. COMAH CA is in the process of developing methodology and guidance on a

number of issues and the MACR CASG will make use of these to develop the MOD systems. MACR guidance will be issued via JSP 498 and DOSR Safety Notices prior to the June 2015 implementation date for COMAH 2015.

Issues

8. Audits and/or inspections have continued across the DOSR JSP spectrum to provide assurance that TLBs/TFAs are complying with the appropriate MOD regulations. This activity has highlighted issues as follows :

- a. Competence and the use of the National Occupational standards;
- b. The quality of risk assessments is very variable. Recent guidance issued by DOSR should help those preparing risk assessments to concentrate on the key OME issues;
- c. The quality of Environmental Risk assessments produced in pursuance of MACR still needs to be improved. The lack of suitably qualified and experienced personnel at the establishment level is the key driver;
- d. There continue to be major issues with the funding of improvements to the fuels infrastructure, particularly at Senoko, Singapore;
- e. Use of overseas ports facilities for movement of explosives where no assessment has been conducted to determine whether UK rules have been applied appropriately.

9. Although SQEP remains an issue within the OME area, it is being dealt with and the initiatives instigated by the WOC should, in time, result in an improvement in both the quality and quantity of SQEP. The WOC is implementing an OME Skills Strategy across DE&S and, building on D Tech's Engineering Skills Framework, is introducing generic governance and delivery role profiles mapped against the National Occupational standards for OME. The WOC's requirements for SQEP are now better understood; however, there remains a dependence on the ability to recruit and retain SQEP against the ongoing overall reduction of experienced OME personnel both within the MOD and Industry.

10. There is an ongoing issue with the use of overseas ports and naval bases for the loading and unloading of ammunition which have no equivalent of MOD port explosives regulation. There is no confidence that the relevant duty holders are ensuring that the appropriate MOD standards are being applied to such circumstances leading to situations that would not be allowed in UK. This is a problem that has been recognised by DOSR. A limited number of port surveys have been undertaken, where DOSR have been made aware of the circumstances and resource has been available, to identify what would be allowed under MOD regulation. This has resulted in improved compliance and where such surveys have been undertaken the UK rules are now being followed.

Regulatory Health

11. The following audit/inspection activity has been undertaken by DOSR against the relevant JSPs

- a. 16 MACR audits against JSP 498
- b. 2 primary audits against JSP 520
- c. 480 independent inspections against JSP 403
- d. 11 inspections against JSP 482

12. ESTC has issued 166 new classifications and amended a further 605.
13. MACR has issued 3 Improvement Notices during this period. A further 4 are still outstanding from previous periods.
14. Of concern is the lack of technical support generally within DOSR, which is very dependent on support/expertise from DE&S, and DIO. Although there are JBAs in place which allow for the provision of the necessary technical support it leaves DOSR very vulnerable. The JBAs with DOSG and DIO continue to operate satisfactorily under the current arrangements. It would not be practical for DOSR to maintain such support within DOSR and provided the current arrangements continue the level of support is satisfactory. However if there are changes to DE&S and/or DIO in the future then the arrangements will have to be revisited.
15. There is no Laser Safety expertise within DOSR, which is completely dependent on support/expertise from DE&S. Regulation under JSP 390 has not suffered but the only control that DOSR has over the resource is through a JBA with DOSG which continues to operate satisfactorily under the current arrangements. Again if there are changes to DE&S in the future then the arrangements will have to be revisited.
16. The independent inspection activities of the RM, Army and RAF ranges are being centralised with the move of the Army Range Safety Inspection team into DOSR.

APPENDIX 2.5: DEFENCE LAND SYSTEMS SAFETY REGULATOR (LSSR)

1. The LSSR Annual Regulator's Report provides an assessment of safety and environmental protection performance for Land Systems²³ within Defence. This report covers the activities of the LSSR, Vehicle Certification Branch (VCB) and Serious Equipment Failure Investigation Team (SEFIT) from 1 Apr 13 to 31 Mar 14 and provides a summary of regulatory health, key issues for TLBs/TFAs and a general statement of performance.

2. LSSR is responsible for regulating the acquisition and safe use of Land Systems in accordance with JSP 454 Land Systems Safety and Environmental Protection. VCB maintain policy covering the maintenance, inspection, certification and testing of wheeled and tracked vehicles in accordance with JSP 930. SEFIT investigate serious equipment failures or incidents where component failure has occurred or the engineering integrity of equipment is questionable.

Defence Performance

3. During the reporting period, compliance with Defence Regulations for Land Systems has been broadly satisfactory with only one Improvement Notice issued during the reporting period.

4. LSSR does have pan-Defence concerns that impact on Land Systems:

a. TLB Duty Holder arrangements differ with the intent of JSP 815 and each other. Whilst there may be practical reasons for this, how TLB Duty Holders will interface effectively with each other is unclear in areas of joint training and operations.

b. Suitably Qualified and Experienced Personnel (SQEP) in safety critical posts is an issue that affects all TLBs. Whilst there is evidence of plans to address this widely acknowledged gap, the time to fill vacant posts and raise the competence levels of those to the required standards is set against the background of under resourced TLBs. LSSR will audit to assess whether safety critical posts are being sufficiently resourced.

c. The number of Part 3 Safety Cases that require joint sign off between DE&S and the Army is approximately 1000+ and this is a significant resource and competence issue for Capability Directors and their staff. The requirement to jointly sign Part 3 Safety Cases is accepted as demonstrating formal confirmation that the residual risks of using equipment are communicated and controlled. This is a resource intensive activity, with 5% jointly signed to date, that will remain unfulfilled if not resourced adequately. LSSR would expect 80% completion of this activity within 1 year, with high risk Land Systems the priority and the remaining 20% within 3 years.

These concerns will provide the focus for regulatory oversight in the next reporting period in addition to the issues outlined below.

²³ Land Systems include armoured and support vehicles; communication and information systems; integrated weapons and general support equipment.

Issues

5. Some Land Systems do not comply with the exposure limits contained within the control of noise or vibration at work regulations. Claims for damages for Noise Induced Hearing Loss (NIHL) are being brought against the Department relating to the use of small arms, mortars and artillery, as well as other operational factors such as Improvised Explosive Devices (IEDs). Equipment is being assessed for non-compliance so that exemption from the relevant legislation may be sought, where appropriate.
6. Investigations have highlighted growing concerns in areas of equipment support management in British Forces Cyprus and British Army Training Unit Kenya (BATUK). Inspections will look to examine these concerns in detail in the next reporting period.
7. VCB visits to MOD vehicle examiner training facilities, along with general enquiries from unit staff, indicate that the training package for Army vehicle examiners is suboptimal. Training elements considered as inadequate include dynamic testing, Dangerous Goods (DG) vehicle constructional requirements and 'platform role equipment capability' inspections. A lack of refresher training, essential to maintain competence, is also of concern. A review of this training and associated facilities is required, especially in light of the transfer of the training schools to Lyneham as part of project ROWCROFT.
8. There has been positive collaboration between VCB and the DSG Sales Team to address the issue of roadworthiness and DG inspections on transfer of DSG functions to a non-crown servant body. Further work with the Driver and Vehicle Standards Agency (DVSA) is planned in early May 14 to better inform the outsourcing project.
9. The continued operation of DG vehicles is reliant on retaining an effective DG vehicle inspection capability. However, MOD's ability to conduct these inspections may be detrimentally affected with the potential outsourcing of DSG and loss of the integral DG inspection team. This issue may be compounded with the possible loss of the Germany based DG inspection team on withdrawal of British Forces from Germany. Given these issues, action must be taken by Army Command to ensure the continued effectiveness of MOD DG vehicle inspection capability.
10. The implementation of safety modifications and the configuration control of these modifications on armoured tracked vehicles is an issue within DE&S and an action plan to rectify this has been implemented. LSSR intends to monitor progress and assess whether this is a wider issue for Land Systems.

Regulatory Health

11. The re-issue of JSP 454 Issue 6 with Defence Regulations and Defence Codes of Practice (DCoPs) and new policy in JSP 930 presents strong regulatory foundations upon which robust audit and inspection activity can continue. New procedures have also been produced setting out the policy and methodology for audit, inspection and enforcement.
12. A number of exemption certificates have been issued to allow military vehicles to operate on UK public roads. Those vehicles procured under Urgent Operational Requirement (UOR) arrangements will have the validity of their exemptions re-assessed when they return from Op Herrick and are taken into 'Core'.

13. An end-to-end review of the Serious Equipment Failure (SEF) investigative function has resulted in an improved training package that better prepares the investigators for the rigours of legal settings. A change to the SEF report format brings it into line with industry good practice together with a more focused report distribution.

14. LSSR served one Improvement Notice in this reporting period on Director Land Equipment (DLE) for inadequate support publications. The Improvement Notice required that these publications were brought up to date as soon as reasonably practicable to reflect the equipment's latest build standard and safety case. A resourced plan was received on the 31 Jul 13, and LSSR is content with the level of response so far; however the Improvement Notice will remain in place until an acceptable level of compliance is demonstrated.

APPENDIX 2.6: DEFENCE MOVEMENT & TRANSPORT SAFETY REGULATOR (MTSR)

1. The MTSR Annual Report provides an assessment of safety and environmental protection performance for Movement and Transport (M&T) activities across Defence. This report covers the activities of the MTSR and Defence M&T performance from 01 Apr 13 to 31 Mar 14 and provides a general statement of performance, key issues and a summary of regulatory health. The assessments are based on a combination of observations from audit/inspection programmes, reports provided to MTSR and from direct engagement with TLBs.

2. MTSR regulates all defence M&T activities including the movement of personnel, vehicles and equipment by all modes of transport, across all environments (land, sea and air). It also addresses road transport management, the transport of Dangerous Goods (DG) and biosecurity requirements.

Defence Performance

3. During this reporting period, compliance with Defence regulations for M&T activity has been broadly satisfactory with evidence of continuous improvement in most areas. For those areas where statistics are captured and there is suitable Information Management in place to communicate performance, the indications are that Defence continues to reduce cases of non-compliance and the number of negative observations recorded against M&T activity. For the Transport of DG, 58% of units inspected were graded as fully compliant, compared with only 14% during the previous reporting period.

4. Assessment of M&T performance across Defence is made difficult by the diversity and range of activities involved and, while the reducing trend of reported non-compliances is positive, MTSR has concerns with:

a. The implementation of the Duty Holder (DH) concept as defined in JSP 815 has identified some concerns. Although in its infancy, the DH concept and its implementation is different in each of the TLBs and diverges from the intent of JSP 815. As a result, MTSR has encountered difficulty in identifying the appropriate DH for M&T activity, particularly in the DE&S domain and for Joint Operations.

b. The provision of accurate safety information and movement data to the user community and to those involved in movement and transport activity, including commercial carriers, is critical. Despite the regulatory requirements being clearly defined and information being readily available, there are repeated failings within TLBs to provide this information. Impending changes to Defence internet service provision presents a risk to the availability of M&T safety critical information; MTSR is engaged with the service provider to ensure continued delivery.

Issues

5. There are a number of issues that emerged during the reporting period that are common across the M&T domain. Whilst the number of non-compliances reported has reduced during this period, evidence gained from inspections undertaken during the actual conduct of functional activity reinforced concerns raised in previous reports. In particular:

a. **Safety Culture.** While technical functional competence levels of those conducting and supervising M&T activities appear high, there appears to be a lack of understanding and demonstration of the levels of safety management associated with the activity. The development of M&T Regulations and Codes of Practice, providing clearly defined requirements, roles and responsibilities, combined with inspection activity, has seen a change in cultural behaviour across Defence, but there are still improvements to be made; TLBs must ensure that all activity is adequately supervised with robust, safe systems employed.

b. **Dangerous Goods**

(1) **Undeclared DG.** Undeclared DG remains a concern. During this reporting period, there were 51 incidents reported, where Cargo Transport Units were found to contain undeclared items of DG. Undeclared DG carries a serious risk to personnel, equipment and the environment; this is a clear breach of legislative requirements.

(2) **Non-compliance.** The number of recorded non-compliances, including air freight rejection, remains high with 324 reports raised (546 non-compliances). The main areas of non-compliances remain the same as previously reported: packaging, marking, labelling and documentation problems.

(3) **Lithium Batteries.** The safe transport of Lithium Batteries continues to be a major concern. Inspection of the first 35 containers returned identified issues with both DG compliance and load restraint. It is essential that lessons are learnt from the experiences of Op HERRICK and used to improve procedures.

Regulatory Health

6. MTSR activity throughout this reporting period has focussed on identifying, separating and developing logistic policy and safety regulation. In order to set the right conditions for future governance and MOD regulation of M&T, priority was given to ensuring that M&T policy was accurate, in accordance with legislation and in line with the Secretary of State's (SofS) directive for safety regulation. Additionally, MTSR put considerable effort towards acquiring the skills necessary to carry out the regulatory role, inspection functions and the requirement to communicate the regulatory regime and expectations across Defence.

7. Having implemented a full regulatory regime across the M&T domain, it is already clear that MTSR Inspections have driven improved safe M&T activity and culture. For the mature DG inspection regime, performance continues to improve across TLB due in the main to continuous engagement and transparent reporting. In the movement and road transport disciplines, where the inspection programme is relatively new, progress has already been made and the inspection regime is demonstrating early benefits. A concerted effort by the team has realised 29 Movement inspections, 44 Defence Licensing and Testing Authorities (DELTA) inspections, 138 DG inspections and three inspections in support of a HSE investigation. It is already apparent from inspections conducted that cultural changes are necessary at the working and management level in order to promote safety conscious and safety aware supervision of M&T activity.

8. This reporting period has seen significant progress with the development of regulations and Defence Codes of Practice, revised to accommodate a clear distinction between legislation and Defence standards, while clearly defining H&S requirements. MTSR remains fully engaged with TLBs to develop and communicate the required standards with Front Line Commands (FLC) routinely providing Subject Matter Expert (SME) input.

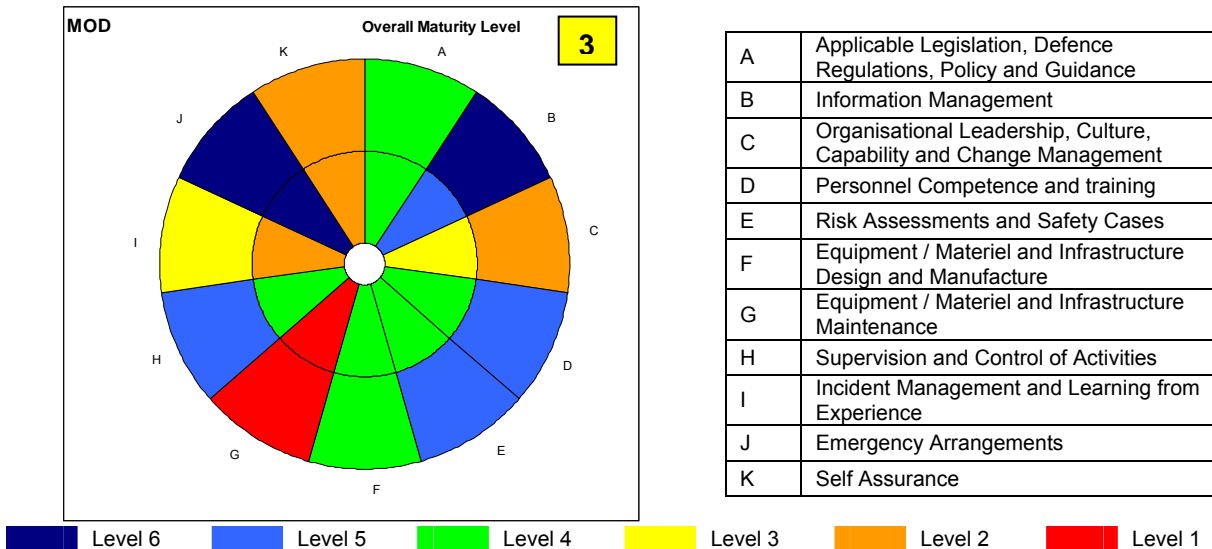
9. During this reporting period MTSR has served one Improvement Notice to DE&S Logistic Services for failings in Rail Safety Management and Rail Equipment Care and Maintenance. Additionally, HSE served one Improvement Notice (MOD Kineton) and one Notice of Contravention (MOD Bicester) for failures in the provision of suitable and sufficient assessment of the risks associated with the movement of Large Goods Vehicles, and risks associated with driver and attendant activity.

10. MTSR uses every opportunity to promote best practice through M&T forums, input into training courses, industry days and stakeholder engagement at all levels. This is clearly having a positive effect in promoting safe activity and improvements are evident; however there remains a gap in pan Defence information sharing and learning lessons in the M&T domain. MTSR is working to define reporting requirements and develop a database to facilitate the sharing of M&T data; however process owners and those organisations engaged in pan TLB activity must also look to better communicate issues.

APPENDIX 2.7: DEFENCE FUEL AND GAS SAFETY REGULATOR (FGSR)

Defence Performance

1. Within the Fuel and Gas Safety domain there has been an improvement in safety assurance in most elements across the MOD. Based on data collected from site inspections, FGSR assess overall maturity to be Level 3²⁴. This is largely attributable to fuel infrastructure issues which have brought Element G down to Level 1 and has attracted considerable Enforcement Action from FGSR during the reporting year.



Issues

2. **2012 Issues.** The main issues identified in last year's report are showing good progress towards resolution, these being:

- a. **DSEAR.** Following PUS focus and interest, MOD has commenced a coordinated process to achieve compliance with the 2003 DSEAR legislation. Stage 1 Risk Assessments were substantially complete by 31 Dec 13, with subsequent Stage 2 Risk Assessments largely²⁵ completed by 31 Mar 14. DIO is committed to commence rectification non compliant infrastructure within FY 14/15.
- b. **Unregulated Fuel and Gas Storage.** In 2012 an emerging theme was the presence of clubs and activities on Defence land which had escaped MOD Regulatory assurance. Recognition of the issue, and realisation of responsibilities by TLB Duty Holders has allowed these organisations to be brought under the MOD Regulatory regime throughout 2013.
- c. **SQEP.** A shortfall of mandated competent personnel in positions to manage and operate fuel and gas facilities was identified in 2012. TLBs have addressed the issue and the incidents of gapped posts have reduced sharply in 2013, and only isolated incidents were encountered.

²⁴ The inner ring has been generated from 2012/13 data, 2013/14 is shown in the outer ring.

²⁵ As at Apr 14 Spot Report, Stage 1 Risk Assessments were 96% complete, Stage 2 88% complete.

3. **2014 Issue - Infrastructure.** FGSR enforcement action has increased in 2013. Almost 90% of identified hazards are the result of infrastructure issues. Since Sep 13, the condition of MOD fuel infrastructure has escalated to Defence Board level with personal interest from PUS. The issue is expanded in the main report but the headlines are:

a. Failure to anticipate annual mandatory tests and inspections, specifically the electrical inspection, professional infrastructure inspection, and FGSR licensing inspection. The two DIO inspections are conditions of licence for FGSR as they demonstrate the infrastructure is safe and fit for continued use, non-compliance indicates contravention to DSEAR and warrants prohibition from use.

b. The DIO professional infrastructure inspections have identified an increasing number of defects; largely due to the age of the infrastructure, saving measures taken against maintenance programmes since 2010, and a historical legacy of inter-TLB discord over life cycle replacement. If the DIO inspection does not certify the facility is fit for use, FGSR is compelled to prohibit its use.

c. The DIO professional infrastructure inspections and electrical inspections identify defects that are not rectified within the timelines specified by the inspector. This invalidates the certification that the facility is fit and safe to use and invalidates the FGSR licence to operate and warrants prohibition from use.

d. DIO and TLBs have recognised the issue and it has escalated to PUS. DIO have disseminated the issue to their site infrastructure managers. Anomalies with the electrical inspection paperwork are being addressed. The new infrastructure management software system due to be implemented in 2014 (TRIRIGA) provides an opportunity to anticipate mandatory inspections. The new DIO operating model provides an opportunity to coordinate allocation of resources towards maintenance and life cycle replacement more effectively than in the past. With timely anticipation of inspections both DIO and the TLBs can significantly reduce FGSR enforcement action in 2014/5.

Regulatory Health

4. **Inspection Regime.** In 2013, FGSR were responsible for licensing 233 MOD fuel sites, based on the inspection regime below:

FGSR Class 1 Fuel Annual Inspection	48
FGSR 3 rd Year Regulatory Inspection	56
Self Assessments	102
Sites not assessed	27

5. **Enforcement Action.** The table below shows the number of Prohibition Notices, Improvement Notices and High Hazards notified in 2013/4, by TLB:

TLB	PN		IN		High Hazards ²⁶	
	Issued	Extant	Issued	Extant	Identified	Extant
Navy	2	1	2	2	22	9
Army	5	2	6	3	162	43
Air	3	1	15	12	95	34
JFC	14	8	9	8	72	59
DE&S	1	0	5	3	36	25
DIO	1	0	1	0	43	32

²⁶ High Hazard Data is presented for Jan-Dec 2013. PN and IN is for Jan 13-Mar 14.

Totals	26	12	38	23	430	202
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6. **Future Development.** Throughout 2013 FGSR has developed a regulatory regime for the safe storage and handling of industrial gases on MOD sites, and also for fuel and gas environmental protection. During 2014 FGSR will incorporate these areas into the inspection programme and report results in next year's assurance report.

APPENDIX 2.8: DEFENCE FIRE SAFETY REGULATOR

Defence Performance

1. For the majority of locations across MOD, the level of compliance with fire safety regulations and MOD policy is satisfactory. From the available evidence, all premises have a Fire Risk Assessment (FRA) in place and Duty Holders are appointing one or more personnel with defined duties for managing fire safety measures. However, in a minority of cases, Duty Holders have not maintained suitable management arrangements and thus received regulatory enforcement notification from Defence Fire Safety regulators.
2. Defence fire resilience is assessed through the Fire Resilience Risk Assessment (FRRRA) process. Together with a Business Impact Analysis (BIA), this process measures and reports on the risks from fire, to high value and strategically important infrastructure, capabilities and assets. There has been a marked improvement in this area and the Defence Fire Safety Business Unit (FSBU) have facilitated through the Duty Holders, earlier engagement with DIO and the Project Teams when developing fire safety strategies and agreeing objectives and appropriate fire protection measures for new and upgraded platforms and buildings. The Lighting II and ongoing Combat Air rebasing projects are examples of where this improvement is having a positive impact.

Issues

3. Maintenance of fire safety systems still remains an ongoing problem across the estate. The consequential impact is that occupiers of premises and Defence infrastructure users are losing confidence in systems. There has also been a reported increase in persons tampering with life safety and other fire detection installations and the disabling of fire protection systems designed and installed to protect high value assets and military critical capability.
4. Fire statistics and investigations reveal a continuing trend of fires caused by faulty electrical devices such as white goods, portable electrical appliances and light fittings. This trend is mirrored within UK fire statistics. The significant factor is that large quantities of this type of electrical equipment is often located within sleeping accommodation. This emphasises the importance of having robust management systems in place across the Single Living Accommodation (SLA) estate that tends to be occupied mainly outside duty hours and endures periods when all the occupants are sleeping.
5. This electrical appliance theme extends across Service Families Accommodation (SFA) where incidents have also included the activation of Defence supplied cookers by domestic pets! Whilst on an electrical theme, lighting in both hangars and SLAs has recently been the subject of raised concerns due to an unusually high failure rate of newly installed equipment in SLA. Additionally, hangar lighting has failed on more than one occasion with near-miss consequences to critical military airframes.
6. The competency of persons appointed with fire safety duties is an area that the regulatory audits have been focussing on over the past year. This factor has been recognised nationally as a key area that will contribute to the reduction of fire incidents and preventable loss of life and injury. MOD fire safety policy has now been published detailing the minimum competency standards required for persons with fire safety duties operating on behalf of the MOD. Evidence suggests that the role and duties of Appointed Persons are not always clearly documented and defined and that training is not always suitable and sufficient.

Regulatory Health

7. The introduction of the new regulatory audit process in the form of the Risk Based Fire Safety Audits has provided the regulatory team the opportunity to sample the level of compliance on selected units. During the year, Defence Fire Safety Regulators undertook nine unit audits. These audits are focusing on sleeping premises with a sample taken across the TLBs. The outcomes of the audits using nationally agreed terminology was 'Broadly Compliant'. This, from the very small sample indicates a satisfactory level of compliance.

8. Formal enforcement activity focussed on the failure to have in place suitable and sufficient fire safety arrangements. Evidence for this was where Duty Holders failed to monitor and address occupiers tampering with fire detection systems and not following unit orders. The response from Duty Holders concerned was generally positive and the majority of notices were complied with and withdrawn within 2 weeks of issue.

9. **Formal Enforcement Action:** The table below details the formal enforcement action taken during the reporting period, April 2013 - March 2014:

TLB	Unit	Date Issued	Type of Notice	Date Withdrawn
Land Forces	Richmondshire Lines Catterick Garrison	24 Nov 13	Enforcement Action Plan	Not complied with and EN Notice issued on 29 Jan 14
Navy Comd	Hunter Block Faslane HMNB Clyde	2 Jul 13	Enforcement Notice	16 Jun 13
Air Comd	Ellington and Frost Bks RAF Cosford	23 Jan 14	Enforcement Notice	Still in force.
Land Forces	Richmondshire Lines Catterick Garrison	29 Jan 14	Enforcement Notice	Still in force.
Navy Comd	RMB Bickleigh Barracks Plymouth	10 Apr 13	Prohibition Notice/Restriction of Use.	22 Apr 13

10. While providing the regulatory report it must be recognised that the current DFRMO ownership, governance and construct creates an unhealthy regulatory situation; in that, alongside the regulatory and enforcement duties, DFRMO also delivers services to the TLBs that are essential to achieve fire safety compliance. It is therefore deemed inappropriate to comment using the maturity model methodology as this would include a degree of self-analysis.

11. Implementation of the proposed changes within DFRMO should improve the current situation to an extent that the current proposals take cognisance of the requirement to create internal separation between Fire Safety regulatory duties and the delivery of services to the TLBs. However with continued owning TLB pressure on DFRMO (including the Defence regulatory function) to achieve savings targets and the ongoing Defence Fire & Rescue Project (DFRP), considerable uncertainty and therefore risk still exists with regard to the future fire safety regulatory capability and suitable independence of the regulator.

APPENDIX 2.9: OFFICE OF NUCLEAR REGULATION (ONR)

1. Our Defence team regulates across the Defence Nuclear Programme in accordance with applicable legislation. In broad terms the programme comprises the construction, maintenance, operation and decommissioning of nuclear powered submarines together with the production and maintenance of UK nuclear weapons. Our team has a key interface with the Defence Nuclear Safety Regulator (DNSR), recognising DNSR's regulatory responsibilities where defence has exemptions from relevant legislation such as the Nuclear Installations Act 1965. Effective and efficient regulation is therefore achieved by us working closely with DNSR to ensure coherent, complete and seamless regulation of all Defence Nuclear Programme activities.
2. Our weapons sub-programme covers the regulation of the AWE licensed sites at Aldermaston and Burghfield. The submarine propulsion sub-programme covers licensed sites at Derby (manufacture and testing of UK submarine reactor fuel), Barrow (construction and testing of nuclear submarines), Devonport Dockyard (maintenance, repair, refitting and refuelling of the UK's nuclear submarines) and Rosyth Dockyard (largely decommissioned; some radioactive material in storage).
3. Our defence programme also regulates a number of sites that are not licensed but for which ONR has responsibilities under Health and Safety at Work Act 1974, Ionising Radiations Regulations 1999 and Radiation (Emergency Preparedness and Public Information) Regulations 2001. These are: HM Naval Bases at Clyde and Devonport, 5 Basin in Devonport Dockyard, Vulcan Naval Reactor Test Establishment and submarine operational berths.

Defence Performance

4. We have evidence that all sites across the Defence Nuclear Programme control the nuclear and radiological hazard well, meet the required safety standards and protect the safety of the public and their workforce. The Defence Nuclear Programme remains busy and faces the challenges of shortages of suitably qualified and experienced personnel in key areas. ONR judges that site safety is being maintained but these shortages may affect longer term programme delivery.

Issues

5. Devonport Dockyard was identified in the previous Chief Inspector's Report as receiving enhanced attention from ONR. This was due to the range of ageing facilities and the timeliness and quality of periodic safety reviews, a number of safety cases that do not meet expectations; required facility upgrades, new facility build to reinstate the ability to defuel submarines at the end of their service life, and stretched resources during a very busy submarine maintenance programme. During the year, progress has been made with developing a Through Life Management Plan for the facilities which recognises the investment that will be needed to ensure their safety and availability into the future. A number of improvements have also been made to the facilities in the Submarine Refit Complex which improve safety and which implement recommendations from Fukushima studies. There has been progress with construction of new defueling facilities and the approach to decommissioning of old facilities has been of good standard.
6. Also at Devonport Dockyard, we took enforcement action in relation to occasions where written instructions required for safe operation were breached (rated INES 0). None

of these affected the safety of the public or the workforce, but they potentially compromised one of the multiple barriers in place to ensure nuclear safety. The licensee responded effectively and addressed the issues within specified timescales. The Improvement Notice has been closed.

7. The AWE (Aldermaston and Burghfield) sites were identified in the previous Chief Inspector's Report as receiving enhanced attention from ONR because of the range of ageing facilities and the timeliness and quality of periodic reviews, a number of safety cases that do not meet expectations, and significant effort being expended on facility upgrades and major new build projects. Progress has been made this year but our enhanced attention on these matters will continue particularly at the Aldermaston site. The Burghfield site is less complex and we have this year judged the appropriate level of attention as 'routine'.

8. We are currently investigating AWE Aldermaston apparent failure to meet a formal regulatory requirement (specification) that required the reduction in volume and encapsulation of 1000 drums of intermediate level waste by February 2014. We are also in discussion with AWE about events relating to shortfalls in the operability and availability of building fire detection systems. For both matters we will consider whether enforcement action is appropriate in accordance with ONR's enforcement policy. However, we are satisfied that there are no immediate safety concerns.

9. The Derby fuel manufacturing site has a number of ageing facilities for which periodic reviews of safety have identified shortcomings against modern standards. ONR's regulatory focus is to ensure safe operation of these facilities until their replacement, which is in progress, with significant investment delivering new facilities that are being built to modern standards. ONR's interventions on the first of these facilities have identified issues with the construction method, assurance of the build quality and licensee oversight of the contractors. It is evident that the licensee is committed to addressing these issues.

10. At Barrow, 2014 will see the launch and commissioning of the latest Astute Class submarine, HMS Artful. ONR focus is to ensure that the licensed nuclear safety-significant activities are carried out safely, which has included reviewing the licensee's justifications relating to the structure of the Quay used for commissioning activities.

Regulatory Health

11. The following table summarises our regulatory attention applied to the defence nuclear licensed sites over the past year. Our judgement is that there are areas that require attention above the standard high level that ONR applies to all licensed sites. This judgement is informed by the level of hazard and risk posed by the installation. Our assessment is underpinned by indicators and additional qualitative measures that we use to analyse the information gathered through our regulatory activities. These include:

- number and significance of regulatory issues related to each site and their timely resolution.
- reportable events and follow-up investigations carried-out by our inspectors.
- enforcement actions.
- emergency preparedness and response capability.
- progress made with implementation of Fukushima Action Plans.
- progress made towards delivery of safety significant developments on site.

Table 1- Regulatory Priority attention for defence licensed sites

ONR regulatory attention level	Site (listed alphabetically within each attention level)	Judgement on whether performance is improving↑, maintaining level ↔, or declining
2 Enhanced level of regulatory attention.	Atomic Weapons Establishment, Aldermaston	↔
	Devonport Dockyard	↑
3 Routine level of regulatory attention expected, relative to the hazard on the site.	Atomic Weapons Establishment, Burghfield	↔
	Barrow	↔
	Derby	↔
	Rosyth	↔

Regulatory Milestones: Highlights

12. Our work over the past year monitored the continued safe operation of the defence nuclear sites and has enabled the licensees to achieve key milestones that contribute to long-term risk and hazard reduction. Key regulatory decisions included:

- **Permitting the commencement of equipment installation for the MENSA project** - MENSA is a major new-build project and will replace the existing assembly and disassembly facilities at AWE Burghfield. Our regulatory decision was supported by assessment of the Licensee’s safety cases for the design and construction of structures and systems.
- **Agreeing the pre-construction safety case for the Pegasus project** - Pegasus will replace an old facility at AWE Aldermaston and will be used to process radioactive materials. Our permission enables further construction and followed assessment of a number of safety cases and resolution of issues we had identified as part of the assessment process.
- **Use of “15 Dock” at Devonport Royal Dockyard Limited** – Our permission enabled the use of the facility for Trafalgar Class submarines after an extensive revision of the safety case by the licensee to address safety significant recommendations arising from its periodic review and implementation of the safety case within the facility.

Forward Look

13. The ageing infrastructure which supports the Defence Nuclear Programme needs to continue to be safely managed through effective maintenance and periodic reviews of safety. The commitment to replacement new facilities, to further improve safety, needs to be maintained and delivered in a timely manner, along with continued progress in decommissioning and disposal programmes. Recognising the expanding nature and national priority of the Defence Nuclear Programme, we will continue to ensure a suitable

level of ONR attention to assure ourselves and the public that it is being delivered in a safe manner.

14. Our strategy is therefore to continue our work to:

- Ensure sustained safe operation of the existing facilities, with appropriate ageing management and safety reviews.
- Ensure new-build projects are constructed to modern standards.
- Encourage production of “Right First Time” safety cases.
- Ensure duty holders have a positive safety culture with a focus on continuous improvement.

APPENDIX 2.10: CONTROL OF MAJOR ACCIDENTS AND HAZARDS COMPETENT AUTHORITY (COMAH CA) (non - MOD)

The following is a report from the COMAH CA on MOD owned operating assets in the UK.

Oils and Pipelines Agency (OPA) Health, Safety & Environmental performance

The COMAH Competent Authority (COMAH CA) has completed a range of proactive and reactive interventions with OPA during 2013-14. Concerns continue to be raised with regard to measures to ensure effective fuel containment and the management of ageing assets such as tanks and jetties, OPA remedial actions remain ongoing. OPA/Costain have developed plans to manage ageing assets but the challenges of significant legacy under investment is adversely impacting upon the nature and speed of site level improvements. The improved relationship between OPA & Costain is now evident, however, not always effective in all areas for example the testing of the containment capability of concrete tank shells.

COMAH CA interventions have led to further Environment Agency (EA) and Health and Safety Executive (HSE) enforcement action. Several CA investigations are currently ongoing relating to the failure of ageing assets e.g. Losses of containment at Backford North & Killingholme. Actions Legal with deadlines are in place on several sites including the more recently inherited Scottish Oils and Fuels Depots (OFDs). Improvement notices at Gosport were complied with on time and extensions have been agreed to the notices at Thanckes OFD following initial delays.

Communications between OPA, Costain & the CA are improving. Monthly telecons are proving effective and OPA are taking more of an active lead during six-monthly HQ CA liaison meetings.

OPA have taken positive steps to deal proactively with the recently published Chemical & Downstream Oil Industries Forum guidelines and EA and the Scottish Environment Protection Agency are considering using them as an industry exemplar in this regard. Good work has also been done on improving MATTE recovery arrangements in sensitive remote areas.

However, the COMAH CA remains concerned about OPA's level of resources to make the significant improvements still needed across a broad range of environmental and safety issues to achieve minimum levels of legal compliance within agreed timescales. This concern is exacerbated given the likelihood of asset ownership changes potentially on the horizon and how such change will be effectively managed.

APPENDIX 3: DETAILS OF DEFENCE SAFETY-RELATED FATALITIES

A summary of the 6 potentially work and safety-related fatalities during the period 01 Apr 2013 – 31 Mar 2014 is shown below;

- a. **JFC (Army) X 3** – 13 Jul 2013 LCpl Roberts and Trooper Maher, 31 Jul 2013 Cpl Dunsby – LCpl Roberts and Trooper Maher died whilst undertaking a selection exercise at the Brecon Beacons Wales. Cpl Dunsby died in hospital after the same selection exercise. Post Inquest Hearing held on Monday, 24th March 14. Subject to civilian police, HSE and LAIT investigation. JFC were issued a statutory improvement notice on the 24 Oct 13 for failing to provide suitable and sufficient risk assessments, which was subsequently removed following a review of risk assessments.
- b. **Navy** ²⁷ – 03 Aug 2013 Lt (RM) Moran -Marine from 40 Commando was on diving expedition training in Hurghada. He died whilst swimming back to shore following a snorkelling activity in the sea. The Coroner has not yet convened the hearing. Navy Command has established a Service Inquiry into adventurous training activities including diving.
- c. **DE&S** – 19 Nov 2013 Mr Wood (contractor) - Mr Wood was an agency worker working on behalf of Logistics Commodities & Services (LCS). He was crushed between a vehicle and a parked trailer within the stabling area. Subject to civilian police force and HSE investigation. DE&S received a statutory improvement notice on the 12 Dec 13 for failing to mitigate fully logistical transport risks.
- d. **JFC (Army)** ²⁸ – 05 Mar 14 Spr Moralee - killed as a result of non combat related crushing injuries whilst cleaning a vehicle for redeployment at Camp Bastion in Afghanistan. Investigations are ongoing into the fatality and its cause; they involve the Special Investigation Branch (SIB) of the Military Police, and the Land Accident Investigation Team (LAIT).
- e. **Air** ²⁹

²⁷ Lt Moran's death has been included by DSEA within the list of potentially work and safety-related fatalities during the period 01 Apr 13 – 31 Mar 14 as the post mortem was inconclusive and a Service Inquiry has resulted with several lines of enquiry which have yet to conclude. Lt Moran was also on-duty at the time of his death.

²⁸ The soldier's death mentioned on page 21 has been excluded from the list by DSEA of potentially work and safety-related fatalities during the period 01 Apr 13 – 31 Mar 14 as he was off-duty at the time of his death and no safety-related failings were identified.

²⁹ The Air Cadet's death mentioned on page 16 has been excluded from the list by DSEA of potentially work and safety-related fatalities during the period 01 Apr 13-31 Mar 14 as the Coroner has advised a natural cause of death result has been received.