

CHAPTER 27**FREE FROM EXPLOSIVES REGULATIONS****CONTENTS**

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1 CERTIFYING FREE FROM EXPLOSIVES, PACKAGES, ARTICLES AND EQUIPMENT

1.1 Introduction

1.1.1 The Certification Free From Explosives (CFFE) regime is applicable to all packages which have contained explosives, arising from the firing or proofing of ammunition, munitions kept in museums or as souvenirs and displays etc, and for training aids, all arising from breakdown and disposal of ammunition and explosives and platforms and any other equipment expected to use or hold munitions. It is also applicable to equipment used to process explosives and subsequently in need of maintenance or repair. CFFE is required when such items are to be transported as non-explosives or sent to recipients for re-cycling who, because of a complete lack of knowledge of explosives, would be at risk if explosives were to be inadvertently left in a nominally empty article or package. Those at particular risk are people outside of the MoD and those who receive items for scrap. The same regime should also be used to ensure the absence of other hazardous substances e.g. White and Red Phosphorus and CS which may be associated with the Munitions.

1.1.2 CFFE is to be treated as an explosives process. It is to be carried out in a licensed site or building wherever possible. In particular the risks must be assessed and work instructions prepared before the commencement of work. CFFE, if possible, is to be carried out in a site, building or designated quarantine area that is separate from the main process area. In some instances, such as Sophisticated Weapon Processing, this instruction is not physically possible to apply and therefore this process should be conducted as part of normal processing, taking into account any potential risks which may be encountered. Where the CFFE process involves more than one item, separate areas within the CFFE area are to be designated for:

- (1) Articles and packages awaiting CFFE.
- (2) Processing the articles and packages.
- (3) The isolation of any live articles found during inspection.
- (4) Articles and packages which have been certified as free from explosives.

1.1.3 The only exception when CFFE cannot be treated as an explosive process is when it is carried out by units in the field, or under adverse conditions. In this instance an assessment of the risks involved should be undertaken, including what munitions were previously held in the packages/platform, article or equipment.

1.2 Competences

1.2.1 CFFE is only to be carried out by a competent person who is authorised to do so. This is defined as:

- (1) By virtue of Training and Experience with a specific nature of ammunition.
- (2) Authorised by virtue of written authority by the unit Commanding Officer or an Officer with the Powers of a Subordinate Commander.

2 IMPLEMENTATION

2.1 Generic CFFE Process - Packages

2.1.1 All packages are to be inspected and a thorough examination carried out to ensure that they are free from explosives. This is to include the removal and inspection of all internal packing fitments and furniture, although they can be subsequently replaced if required. If it can be stated with certainty that the package is free from explosives a CFFE certificate must on all occasions be issued by a competent individual. If it can not be stated with absolute certainty that an item is completely free from explosives or an explosive item is found during this process

contact must be made with the appropriate explosives authority for clarification, appropriate certification or removal of the item to licensed explosive storage. Second or multiple CFFE inspections may be necessary dependent upon the respective risk assessment and CFFE process employed. An example of this requirement is when unsealed packages are received at a unit that operates a Returned Empties Group (REG), or similar procedure, and are required to pass on consolidated consignments for a particular theatre or region.

2.1.2 Further specific advice is given in the Annexes to this chapter but contact can also be made with the DOSG Munitions Incident Database (MID) Cell. Contact details are provided at Annex F.

2.2 Pre Certification of Empty Packages

2.2.1 Pre certification of packages with the use of MoD Form 2261 is a useful process to permit the early identification of empty packages awaiting formal CFFE inspection, sealing and certification. Pre certification is carried out after firing activities and an initial gross check of ammunition packages prior to their removal from the range. During this process MoD Form 2261 should be placed over the HCC Labels on the ammunition packages. The Pre certification process does not preclude the safety and security duty to manage such containers appropriately until such a time as they have been formally certified free from explosives and sealed.

2.3 Markings

2.3.1 Hazard Classification Code markings, Supplementary Symbols, Proper Shipping Name and UN Serial Number details are to be removed or obliterated as part of the CFFE process. Obliteration can be in the form of simple use of paint to obscure these markings. Consideration must be given to the likely refurbishment of all packages and use of strong adhesives and labels which could prove difficult to remove are not recommended. For all packages CFFE certificates are to be prepared for each item and are to be signed by the person carrying out the inspection. This person is to be present during the whole process to ensure that it is correctly conducted.

2.4 Documentation

2.4.1 MOD Form 2257 CFFE certificates are accountable documents. The Certificate must be placed inside the package so as to remain legible

2.5 CFFE Certification

2.5.1 Details from the CFFE Certificates of a consignment of CFFE packages are to be summarised on the Consignment Note. A copy of the Consignment Note must be kept by the issuing unit for three years. The Consignment Note must be signed by a Competent person as defined at para 1.2. and annotated with the words:

"The items in this consignment have been subjected to a method of checking such as to exclude the possibility of the consignment containing any explosives material".

2.6 Sealing of Packages

2.6.1 Once packages have been subject to the CFFE process they must be sealed. The Head of Establishment/ Unit is responsible for ensuring that there is a management system to ensure that these arrangements are put in place and remain so until dispatch of the items from the unit.

2.7 Standing Orders

2.7.1 Establishment/ Unit Standing Orders are to include detailed procedures to ensure CFFE Procedures are strictly observed. The names of unit personnel

authorised to inspect items to ensure that they are free from explosives and to sign the CFFE Certificate are to be published in Unit/Establishment Routine Orders not less frequently than every three months.

3.1 Generic CFFE Process - Articles/Platforms.

3.1.1 All articles/platforms are to be inspected and a thorough examination carried out to ensure that they are Free from Explosives. With platforms this is to include a thorough search of the platform including those places where items could have been inadvertently mislaid or dropped either during training or on operations. If it can be stated with certainty that the article/platform is free from explosives a CFFE certificate must on all occasions be issued by a competent individual. If it can not be stated with absolute certainty that an item is completely free from explosives or an explosive item is found during this process contact must be made with the appropriate explosives authority for clarification, appropriate certification or removal of the item to licensed explosive store. Second or multiple FFE inspections is permitted dependent upon the respective resources available and risk assessment and CFFE process employed.

MOD FORM 2257 VERSION 1 12/10	
ITEM CERTIFIED FREE FROM EXPLOSIVES (CFFE)	
1. This certificate may only be signed by a Competent Person as defined by JSP 482 Chapter 27 - MOD EXPLOSIVES REGULATIONS.	
2. I, NAME.....	
SIGNATURE: _____	
3. UNIT/SHIP/ESTABLISHMENT*:	
4. UIN	
Certify that I have personally examined: A. THE CONTENTS OF THIS CONTAINER* B. THE CONTENTS OF THIS ARTICLE/VEHICLE*	UNIT STAMP <div style="border: 1px solid black; height: 40px; width: 100%;"></div>
and confirm that at the time of checking/certification that it does not contain any live ammunition or other explosive matter. I understand that should any live ammunition or explosive material be found the fact will be reported to higher authority for investigation and such action as may be considered necessary.	
WARNING: THIS CONTAINER/PLATFORM/ARTICLE MAY BE SUBJECT TO FUTURE REPAIR/REFURBISHMENT/MAINTENANCE AND A FAILURE TO COMPLETE THE FFE PROCESS COULD ENDANGER OTHERS.	

Figure 1 – MOD Form 2257 – CFFE Certificate.



Figure 2 – MOD Form 2261 – Empty packages Awaiting FFE Certification.

4 FREE FROM EXPLOSIVE (FFE) VIOLATION REPORTING AND PROCEDURES

4.1 General

4.1.1 When any live explosives are found to be present in any package, article or part of a consignment etc. Certified as Free From Explosives, the facts are to be reported so that an investigation can be carried out to prevent a recurrence. The report must be accompanied by copies of all documentation concerning the consignment. Similarly the discovery of contamination by other hazardous substances or items certified as being free from contamination, must also be reported.

4.2 Notification of FFE Violations

4.2.1 If, during processing, any live ammunition and / or explosives are found, a Violation Report MOD Forms 1671 or 1671A are to be raised as applicable. Examples of completed forms are shown at Figure 2 and 3. Each violation report is to be forwarded, together with copies of the documentation accompanying the consignment, to MID Cell, Fir 3a, #4304, MOD Abbey Wood South, Bristol BS34 8JH. Enquiries can be made with the MID Cell, contact details at Annex F.

4.3 Action to be Taken by MID CELL

4.3.1 On receipt of a violation report, the details of the violation are entered onto the Munition Incident Database (MID) where it is allocated a unique register number. As an FFE violation is classed as a reportable Near Miss in accordance with RIDDOR, a letter is then raised requesting that an investigation is to be carried out by the unit involved.

4.4 Action to be Taken by Unit/Establishment

4.4.1 The unit is to complete the Unit FFE Violation Investigation Report, following investigation. The report is to be returned to the MID cell within 8 weeks of issue. Due to different Chains of Command, Investigation Reports should be made using the most appropriate format, an example of which is detailed below. For all Serious Violations or those Units which persistently incur violations the relevant Inspector of Explosives (IE) will be requested by the MID Cell to carry out a full review of Unit procedures and ensure that they are effective.

4.4.2 To ensure that appropriate investigation action is taken, the following categories have been applied to FFE Violations. A response from the Unit/Establishment should be made against each assigned category:

CATEGORY	EXAMPLE	LEVEL OF INVESTIGATION REQUIRED	REQUIRED RESPONSE
SERIOUS	Multiple explosive Items, items Attractive to Criminal and Terrorist Organisations (ACTO), any gun ammunition above 12.5mm or any other significant find.	Full investigation of the circumstances and proposals from the Unit/Establishment for active measures to prevent re-occurrence.	From Unit Commanding Officer or Head of Establishment.
SIGNIFICANT	Any violation viewed as significant by the MID Cell. This would mainly occur when clear evidence exists of a lack of correct procedures or negligence.	Full investigation of the circumstances and proposals from the Unit/Establishment for active measures to prevent re-occurrence.	QM or equivalent
REPORTABLE	All other violations.	No investigation required by the offending unit. However personnel involved in FFE procedures should be reminded of responsibilities and Unit/Establishment Procedures reviewed.	Acknowledgment from the QM or equivalent.

Table 1 – FFE Categories

4.5 Confirmation of Action

4.5.1 On receipt of the completed Unit FFE Violation Investigation Report the FFE Violation database is updated and the incident is generally closed. Any incident where a violation investigation is not concluded satisfactorily will be referred back to the Unit and copied to the next higher authority for action and information.

4.5.2 If the completed Unit FFE Investigation Report is not received by the MID Cell within 8 weeks of issue, a hastening letter will be sent. Further hastening will be carried out via normal staff channels should this be necessary.

4.5.3 The originator of the violation report will be informed of received reports and closure action on a bi-monthly basis.

4.6 **Land and Air Unit FFE File**

4.6.1 All Land and Air units must maintain an FFE file, which details all violations as well as any action taken to prevent re-occurrence. This file should be made available to the authorised inspection teams.

FFE VIOLATION REPORT (COMPLETED EXAMPLE)

MoD Form 1671 (Revision 07/08)

Part A – Unit Details (See note 1)

1. Reporting Unit:	DM LONGTOWN	2. UIN :	N5101A
3. Unit Ref No:	FFEV/01/2009 ALLOCATED BY MID CELL	4. MID Ref No:	
5. Date Time Group	01/01/2009	6. Place of	
BUILDING 1		occurrence:	
of the occurrence:			

Part B – Munitions Detail (See note 2)

7. ADAC:	11901 - 01	8. NSN:	1305 - 99
9. Designation:	Round 5.56mm Ball Carton L2A1 (SA80)	10. BKI:	RG-0809 - 000001-
11. Qty Found:	150	12. Hazard Division:	1.4S
13. Box Type	H83		

Part C – Consignment Details (See note 3)

15. Consignor:	1 Blank shires	16. Issue Voucher No:	12134
17. Date of Issue:	21/07/2009		

Part D – FFE Details (See note 4)

18. Did the package contain YES/NO* YES/NO* FFE Cert:		19. Did other packages contain FFE Cert:	an
20. Did the consignment Contain an FFE Cert:	YES/NO*	22. Found By:	

Part E – Reporting Unit Remarks (See note 5)

23. Found during CFFE process

Part F – Reporting Officers Details (See note 6)			
24. Rank:	<input type="text"/>	25. Name:	<input type="text"/>
26. Appointment:	<input type="text"/>	27. Date:	<input type="text"/>
28. Signature:	<input type="text"/>	29. Contact No:	<input type="text"/>

Part F – Supervisors Officers Details (See note 7)			
30. Rank:	<input type="text"/>	31. Name:	<input type="text"/>
32. Appointment:	<input type="text"/>	33. Date:	<input type="text"/>
34. Signature:	<input type="text"/>	35. Unit Stamp:	<input type="text"/>

NOTES

- (1) *Full Unit Details required including Post Code and UIN.*
- (2) *Full munitions details are to be listed. Where an ADAC cannot be ascertained a Generic ADAC is to be used where possible. Where details are not known, insert NK. Where more than one ADAC and or BKI is involved insert various and list full details as an Annex. Where exact quantities are not known, prefix with approx.*
- (3) *Insert all details of the consignment.*
- (4) **Delete where necessary.*
- (5) *Insert any remarks which may be of relevance, e.g. How the violation was found. If the space is insufficient please use a separate sheet.*
- (6) *Insert details of the reporting Officer.*
- (7) *Insert details of the supervising Officer.*

Completion Notes:

It is essential that as much detail of the outer and inner packaging (as applicable) is given for trend purposes and possible packaging re-design.

Figure 3 Completed Example of CFFE Violation MOD Form 1671

PLATFORM FFE REPORT (EXAMPLE)

MoD Form 1671A (Revision06/09)

Part A – Reporting Unit Details (See notes 1 and 2)

1. Reporting Unit:	DM LONGTOWN	2. UIN :	N5101A
3. Unit Ref No: (ALLOCATED BY MID)	FFE/01/2009	4. MID Ref No:	9011
5. Date Time Group BUILDING 7 of the occurrence:	01/01/2009	6. Place of occurrence:	

Part B – Munitions Detail (See note 3)

7. ADAC:	11901 - 01	8. NSN:	1305 - 99
9. Designation: 0908 - 0000001	Round 5.56mm Ball Carton L2A1 (SA80)	10. BKL:	RG -
11. Qty Found:	150.	Hazard Division:	1.4S

Part C – Consignment Details (See note 4)

15. Consignor:	1 BLANKSHIRE RGT
17. Date of Issue:	01/01/2009
18. Platform Type and Reg:	VG 02 KL MASTIFF

Part E – Reporting Unit Remarks (See note 5)

23. FOUND IN DRIVERS FOOTWELL – PICTURES ATTACHED

Part F – Reporting Officers Details (See note 5)

24. Rank:		25. Name:	
26. Appointment:		27. Date:	
28. Signature:		29. Contact No:	

NOTES

- (1) Full Unit Details required including Post Code and UIN.
- (2) The MID number will be completed on receipt of the Violation by the MID Cell.
- (3) Full munitions details are to be listed if possible.

ADAC = AMMUNITION DESCRIPTIVE ASSET CODE

Details of this number can be found at the Defence Intranet Link below:

<http://defenceintranet.diiweb.r.mil.uk/DefenceIntranet/Library/CivilianAndJointService/BrowseDocumentCategories/EqtMat/WeaponsMunitionsAndWeaponSystems/Munitions/AdacCatalogue.htm>

OR TYPE ADAC ON THE SEARCH PANEL OF THE DEFENCE INTRANET
BKI = BATCH KEY INDICATOR

This can generally be found on the Ammunition. These examples are actual violations.



For SAA this example shows the type - Rd 5.56mm L17A2 and the batch RG 07.



For other ammunition types the designation can be found on the ammunition as well as the BKI – Grenade Hand HE L109A1 BKI = SM 2 02 7

- (4) Insert all details of the consignment.

(5) Insert any remarks which may be of relevance, e.g. How the violation was found. If the space is insufficient please use a separate sheet. Please provide photographs of the platform involved as well as the munition.

(6) Insert details of the reporting Officer.

Figure 4 Completed Example of CFFE Violation MOD Form 1671A – (platforms)

FIGURE 4 - BLANK FFE VIOLATION INVESTIGATION REPORT

The following is an example of the minimum information required when an FFE Violation Investigation Report is requested. This is for reference purposes only and Units and Establishments should use this as a guide only.

UNIT**MID CELL REF NO**

1. Confirmation is required that the FFE Violation has been fully investigated.
2. Provide confirmation that current procedures for the disposal of ammunition salvage, including fired cartridge cases, fired tubes and primers, ammunition packages and recoverable fitments have been reviewed and are considered to be satisfactory.
3. Provide confirmation that procedures are in accordance with applicable regulations e.g. JSP 482, JSP 862 etc.
4. Confirmation is required that all personnel involved with this incident have re-read and full understood local Operating Procedures and have signed an appropriate auditable document to say that they have done so.
5. Confirmation is required that details of this violation have been entered on the Unit/ Establishment FFE Violation file.
6. Confirmation of any Disciplinary action taken. If disciplinary action was taken what form did it take?
7. Provide a summary of any other relevant details found in the investigation.

DATE

.....

Signature

.....

Name

.....

Rank

.....

Appointment

MARITIME ENVIRONMENT VIOLATIONS

To be copied to FLEET EXP when completed.

The report does not override the requirement for a Ships immediate investigation to be forwarded in accordance with FLAGO 1685.7.

LAND ENVIRONMENT VIOLATIONS

Report to be signed by OC/CO

Report to be copied to Division/District HQ Once completed.

AIR ENVIRONMENT VIOLATIONS

To be copied to AC A4 – Arm when completed.

Report to be signed by OC/CO

CIVILIAN ESTABLISHMENT/ORGANISATION VIOLATIONS

Report to be signed by Head of Establishment involved.

Report to be copied to the contract authority.

FIGURE 5 - Blank FFE Violation Investigation Report for MOD Forms 1671 and 1671A.

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CHAPTER 27**ANNEX A****CERTIFICATION FREE FROM EXPLOSIVES OF EXPENDED CARTRIDGE CASES****CONTENTS**

Para

- 1 PROCEDURES FOR THE DISPOSAL OF CARTRIDGE CASES ABOVE 12MM
- 2 PROCEDURES FOR THE DISPOSAL OF SMALL ARMS AMMUNITION (SAA) EXPENDED CARTRIDGE CASES UP TO 12MM
- 3 EMPTY SAA PACKAGING

1 PROCEDURES FOR THE DISPOSAL OF CARTRIDGE CASES ABOVE 12MM

1.1 All Cartridge cases are to be certified Free From Explosives in accordance with the generic instruction included in this chapter. A CFFE Certificate must be included with the consignment.

1.2 Cartridge cases should not be returned grossly contaminated. Care is to be taken to remove all grit and dirt.

1.3 Cartridge cases other than brass are to be segregated and returned separately by metal type.

1.4 All arisings must be forwarded to **JSCS, E1, E Site, Bicester** for onward shipment to QinetiQ for final FFE, recovery and recycling. Overseas theatres may have different arrangements. See Annex B.

2 PROCEDURES FOR THE DISPOSAL OF SMALL ARMS AMMUNITION (SAA) EXPENDED CARTRIDGE CASES UP TO 12MM

2.1 Due to the large quantities involved, there is potential for the inadvertent mixing of live rounds with expended SAA cartridge cases up to 12mm. SAA cases up to 12mm can only be declared FFE after they have been formally recovered as scrap.

2.2 This procedure **does not** remove the need to physically check SAA cases for live rounds, both at the point of collection, packing or at recovery facility. No CFFE certificate is to be completed using this process.

2.3 All fired SAA cases up to 12mm (0.5inch not included) should be returned as contaminated arisings in approved metal ammunition packaging from the unit. These packages should normally be the packaging in which the ammunition was issued. Only if metal ammunition packages are unavailable should strong wooden boxes be utilised. Suitable packing materials such as sandbags should be used to fill the void in part filled packages. Post pallets can be used to aid the storage and transport of packages filled with fired SAA. If these are unavailable steel banded wooden pallets may be used. Consideration of weight and future movement implications must be undertaken.

2.4 All arisings must be forwarded to **JSCS, E1, E Site, Bicester** for onward shipment to QinetiQ for final FFE, recovery and recycling. Overseas theatres may have different arrangements. See Annex B.

2.5 Packages with contaminated cartridges under 12mm must be closed and fitted with wire or plastic cable ties to prevent inadvertent opening. All original markings are to be obliterated or obscured using paint and the packages are to be marked "Contaminated Brass under 12mm". All accompanying paperwork is to be similarly endorsed. These brass arisings are not classified as dangerous goods, therefore hazard markings and dangerous goods notes are not required.

2.6 The packed arisings can be stored in any secure MOD premises, and may be stored in an ammunition store with HD 1.4S if necessary but physically separated from the ammunition. For transport the vehicle does not require hazard marking, placarding or vocationally trained drivers or attendants.

3 EMPTY SAA PACKAGES

3.1 All empty SAA packages and internal furniture are to be returned to JSCS (N) Longtown for re-use and will continue to require full FFE certification at the point of dispatch in accordance with this chapter. Any surplus internal furniture, removed from packages used for the return of fired cases, should also be returned. More than one set of internal furniture may be placed in each package as appropriate to achieve this.

3.2 Current high demand for refurbishment and re-use of packages, particularly those containing Small Arm Natures have reached unprecedented levels and all Units are requested to expedite return to JSCS (N) Longtown as quickly as is reasonably practical or economic to do so.

CHAPTER 27

ANNEX B

DISPOSAL OF AMMUNITION BOXES/ARTICLES IN OVERSEAS THEATRES

CONTENTS

Para

1 GENERAL

Example

1 Overseas Theatre FFE Example Working Instructions

1 GENERAL

1.1 Units in overseas theatres may dispose of ammunition boxes/articles through recognised local disposal routes (where local disposal has been properly authorised and delegations have been issued by the Defence Sales Agency). The CFFE process must be designed to ensure that no live ammunition enters the disposal route and therefore a second CFFE of the ammunition/boxes/articles should always be considered.

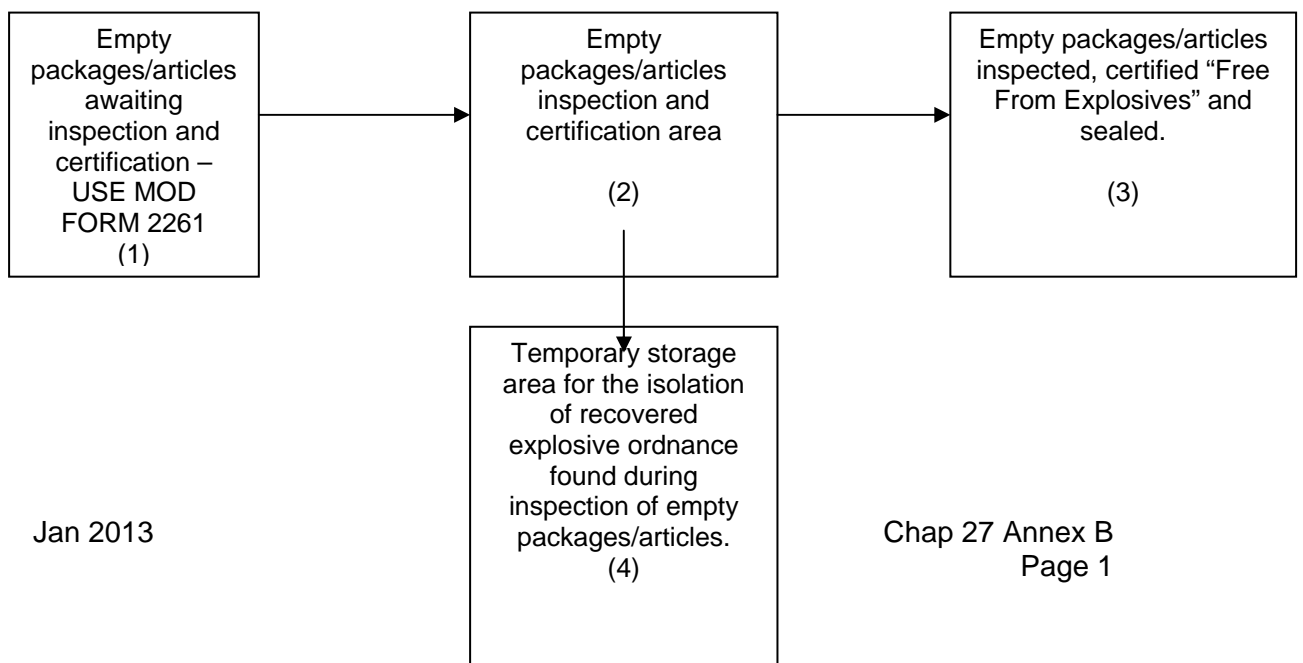
1.2 For this purpose CFFE is to be treated as an explosives process and the risks must be assessed and work instructions prepared before the commencement of work. It is to be carried out in a licensed site or building wherever possible. CFFE is to be carried out in a site, building or designated quarantine area that is separate from any main process or storage area. Where the CFFE process involves more than one item, separate areas within the CFFE area are to be designated for:

- (1) Packages/articles awaiting CFFE.
- (2) Processing the packages/articles.
- (3) For packages/articles which have been certified as free from explosives.
- (4) The isolation of any live articles found during inspection.

1.3 Each area is to be separated from the next by distance and a physical barrier. Each area is to be signed with the activity/process. The separation of activities must be sufficient and robust enough to ensure that there is no accidental passage of un-inspected packages/articles mixing with inspected packages/articles. See diagram below.

1.4 The CFFE process must be supervised.

1.5 Inspection of items recovered from inspected ammunition packages is to be by a Competent and Authorised person.



Overseas Theatre FFE Example Working Instructions

1 Un-inspected Ammunition Package area:

1.1 All packages to be opened. Removed all previous seals. Open any inner packaging.

2 Ammunition Package Inspection area:

2.1 All inner packing to be removed. All packing to be inspected for live or expended ammunition. If any is found it is to be removed. Ammunition items suspected of being live or whose condition cannot be confirmed is to be removed to the segregated storage area await further inspection and disposal by a competent person.

2.2 Once packages are confirmed to be empty they are to have all inner packing repacked.

2.3 Signed FFE Certificate attached to the ammunition package.

3 Ammunition Packages that have been inspected:

(1) Confirm presence of FFE Certificate.

(2) Close and seal ammunition package.

(3) All Fire Hazard Division Labels are to be removed/obliterated.

4 Isolation Area:

4.1 Where doubt exists as to the condition of the recovered article it is to be inspected by a competent, authorised person.

4.2 If the recovered article is confirmed as being an expended article of ammunition it is to be disposed of in accordance with orders.

4.3 If the condition of the recovered article still cannot be ascertained to be FFE then treat as "Live Ammunition"

4.4 Recovered articles suspected or found to be "Blind Ammunition" are to be disposed of in accordance with the relevant disposal procedure. Note. If normal range procedures are followed there should be no instances of "Blind Ammunition" items found.

4.5 Recovered articles found to be "Live Ammunition" are to be repacked in an authorised pack, held in an authorised ammunition store and disposed of in accordance with local instructions. This may require shipping the item back to UK with any other unexpended ammunition.

CHAPTER 27**ANNEX C****MUNITIONS KEPT IN MUSEUMS OR AS SOUVENIRS, IN DISPLAYS ETC.****CONTENTS**

Para

- 1 GENERAL
- 2 MUSEUMS

1 GENERAL

1.1 All munitions kept in Museums or as souvenirs, in displays or items that could have or did contain munitions must be examined by a competent person to ensure that all components of the munition are entirely Free from Explosives and other hazardous substances. Any item that may be confused with a live store, such as a training round (but not purpose manufactured training aids obtained from official sources), will be subject to this process. A formal CFFE certificate will then be issued, by the person carrying out this examination, to the keeper of the munition. All organisations holding such munitions must keep a register with details. Those items that have been de-activated by a certified Proofing House as FFE do not require any further examination or certification as this level of expertise is considered sufficient and renders further examination unnecessary.

1.2 Where there are a number of identical and small items all requiring certification, this may be completed on one certificate collectively, provided the number of items to which it refers are clearly recorded.

1.3 A display or unit collection Register is to be maintained. The Register should record the Item Number, Designation, Location held and be cross-referenced to the FFE Certificate and supporting documents. Alternatively, if relatively few items are held, the FFE Certificate and supporting documents may be used instead of the Register. If there are many items, the Register may be subdivided further into sections, to group the types of item held (e.g. grenades, mines, shell etc) for ease of reference.

1.4 The purpose of the Register is to provide a summary of the items held, their certification status and actual location. If there are less than 10 items there is no requirement to maintain a register and production of the FFE Certificates will suffice.

1.5 Items on temporary loan from other Units should be recorded by reference number and signed for in a temporary loan book or similar record.

1.6 Accounting and stocktaking procedures for inert display items/training aids should follow the guidelines laid down in JSP 862.

1.7 Units are to ensure that all security requirements are met and should seek the advice of their local security advisor.

1.8 An inspector may ask to see the Register (if held) and evidence of FFE inspection and certification. If items are seen that are not certified and recorded properly, then the inspector will expect remedial action immediately. Where an accident has occurred that involves serious injury through handling an uncertified item, then prosecution could follow.

1.9 MOD Form FFE Certificate must be used on all occasions.

MOD FORM 2258

FREE FROM EXPLOSIVES CERTIFICATE FOR DISPLAY ITEMS

**ITEM CERTIFIED FREE FROM EXPLOSIVES
(CFFE)**

- a. Unit/Establishment:
- b. Item Number (s):
- c. Description: To include nomenclature of item, mark or model number, where known and dimensions. Photographs and radiographs (where practicable) should also be attached.
- d. Technical Notes: As applicable. Additional background information of the item described, e.g. safety devices, explosives filling that would have been used etc where this is helpful and relevant.
- e. References: As applicable, e.g. may refer to obsolete publications.
- f. Location: Location where item is currently held.
- g. Origin: Origin where known.

The above described and recorded item has been inspected and certified Free From Explosives by the undersigned and authorised person

Name	Rank/Grade	Signature
------	------------	-----------

Unit	Date
------	------

Unit Stamp:

**WARNING: THIS ARTICLE MUST BE FFE. FAILURE TO COMPLETE THIS
PROCESS COULD ENDANGER OTHERS.**

FIGURE 5 – MOD FORM 2258 - FREE FROM EXPLOSIVES CERTIFICATE FOR DISPLAY ITEMS

2 **MUSEUMS**

2.1 The MoD has three categories of museum.

2.1.1 MoD Sponsored museums

These are the national museums and consist of:

- a. The National Army Museum
- b. The Royal Air Force Museum. Embraces two sites, - London & Cosford (with reserve storage at MOD Stafford)
- c. The National Museum of the Royal Navy.

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CHAPTER 27**ANNEX D****CERTIFYING FREE FROM EXPLOSIVES, BUILDINGS AND LAND NO LONGER USED FOR THE STORAGE, HANDLING AND PROCESSING OF EXPLOSIVES****CONTENTS**

Para

1 GENERAL

1 **GENERAL**

1.1 It is essential that buildings or land that may at any time have been used for the storage, handling and processing of explosives should be rendered free of all explosives contamination and formally certified as such before being used for other purposes. These buildings and areas of land are to be treated as contaminated until proven otherwise. Further advice on the remediation of contaminated land is available in JSP 418 – The MOD Environment Manual. Defence Estates would normally be involved in the hand over of MOD land to other agencies.

1.2 When buildings, or land, previously used for explosives are to be sold or pass out of the immediate custody of the Head of Establishment, e.g. on the closure of a depot, or when the buildings, etc are released for use by a different Department, the following procedure is to be adopted:

- (1) A thorough visual search of the buildings or areas involved is to be organised to ensure that no explosive items have been overlooked. Additional instrumental searches are to be undertaken where this is considered necessary. Staffs capable of identifying and disposing of any items discovered are to form part of the search party. Great care must be exercised when undertaking clearance operations.
- (2) Any places where exposed explosives could have been handled are to be decontaminated. Technical advice is to be sought as necessary.
- (3) A joint inspection by Establishment staff and the appropriate Technical Professional is to be arranged as a final check. For Cat A/B buildings it may be necessary to swob/examine and physically check for explosive dust or explosive contamination. For buildings of Cat C and Cat D an inspection by Establishment staff only is required.
- (4) Certificates of Freedom From Explosives are to be prepared and copies held at the Establishment and the appropriate Headquarters.

1.3 When buildings or land previously used for explosives are re-allocated to other functions and remain under the direct control of the Head of Establishment they are to be formally certified. Records of these procedures, and all relevant evidence is to be retained.

DE&S SUPPORT

ESG provides a full range of Explosive Ordnance Risk Assessment (EORA) services.

The initial EORA process is contained in one phase;

- Phase 1: a desktop study to research all sources of information related to a site; local/national military and civilian archives, current/historical maps and aerial photography. The study will also include a site visit. The report will identify all ordnance related risks (Areas of Potential Concern) and recommend a risk mitigation strategy. This strategy may only require the issue of a Statement of Known Hazards by the site facilities management prior to the commencement of any intrusive works or may recommend an EORA Phase 2 (Survey) or Phase 3 (Investigation).

Following on from the EORA Phase 1 report there are two possible further phases of EORA work which may be recommended if a risk from UXO contamination is identified;

- Phase 2: surveys of the Areas of Potential Concern which will identify and record any areas of contamination. The data produced can then be used to provide further information to support the conclusions of the previous Phase 1 or to justify the requirement for a Phase 3.
- Phase 3: this investigation and remediation phase of EORA involves intrusive works; either investigation/remediation of any Areas of Potential Concern identified by the Phase 2 or where ordnance contamination has already been confirmed by the Phase 1, a structured hand held magnetometer search and investigation (Explosive Ordnance Clearance). In some specific cases, it may be acceptable to reduce the risk from the UXO contamination to an acceptable level by targeted removal of ordnance but this is dependant on the proposed end use for the site.

For Buildings and Land

- Phase 1 would identify the requirement for a CFFE, the building/area having been used for explosive processing, storage, manufacture etc.
- Phase 2 would test the building/area its surrounds and facilities for contamination – if tests proved positive an EORA Phase 3 would be required.
- Phase 3 would be the remediation phase, in plain terms the removal/decontamination/cleanup of any contamination before the building/area can be transferred to other uses, sold off or demolished.

Contact:

DESFacilities-ESGOffice@mod.uk or TELEPHONE 9355 67944 - 01225 467944.

MOD FORM 2259

FREE FROM EXPLOSIVES CERTIFICATE FOR BUILDINGS AND LAND

CERTIFIED FREE FROM EXPLOSIVES (CFFE)

- a. Unit/Establishment:
- b. Building Number:
- c. Description:
- d. References: As applicable, e.g. may refer to obsolete publications.
- e. Method of FFE employed:
(e.g. X ray or visual examination)

FREE FROM EXPLOSIVES CERTIFICATION

The above described building/land has been inspected and certified Free From Explosives by the undersigned and authorised person

Name	Rank/Grade	Signature
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Unit	Date	
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Unit Stamp:

FIGURE 6 – MOD FORM 2259 - FREE FROM EXPLOSIVES CERTIFICATE FOR BUILDING/LAND

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CHAPTER 27**ANNEX E****INSPECTION AND CERTIFICATION OF EXPENDED PYROTECHNIC ARTICLES****CONTENTS**

Para

- 1 INSPECTION AND CERTIFICATION
- 2 DISPOSAL/DEMILITARISE

1 INSPECTION AND CERTIFICATION

1.1 All recovered expended pyrotechnic articles must be inspected and certified FFE prior to disposal. The recovery of such articles is not without risk. The risks are from the inadvertent recovery of either Blind or unidentified munitions that may have an explosive content and consequently the process must be fully risk assessed and undertaken only by those personnel familiar with the natures of pyrotechnic ammunition used.

1.2 This instruction is to be used where range orders require units training to recover any expended pyrotechnic articles and arrange for subsequent disposal. They are to be read in conjunction with local range orders and are designed to compliment them.

1.3 Any articles found that are "Blind" must be disposed of in accordance with the relevant user instructions.

1.4 Any unidentified article must be reported to the range staff who will arrange for its disposal in accordance with local instructions.

1.5 The recovery of any expended pyrotechnic articles must be under the control of a Junior NCO or equivalent, as a minimum rank with known competence. The NCO in charge must be familiar and competent with the natures of ammunition to be recovered.

1.6 All recovered pyrotechnic articles are to be held segregated, as live ammunition, until inspected and certified as Free from Explosives (FFE). During this process there is no requirement for them to be stored in a Licensed Explosive facility, however storage during this process must be safe and secure to prevent possible tampering or inadvertent use. Recovered articles awaiting inspection are not to be mixed with serviceable ammunition in storage. Recovered articles are to be inspected as soon as reasonably practicable and not allowed to accumulate for protracted periods.

1.7 For this purpose CFFE is to be treated as an explosives process and the risks must be assessed and work instructions prepared. The CFFE inspection process is to follow the same principles as those employed for the CFFE of ammunition packages. It is to be undertaken by a Competent Authorised person.

1.8 In order to determine if the remains of fired ammunition can be disposed of locally the materiel must be considered on a case by case basis. If the materiel is CFFE, and it is intended to dispose of it locally, then in the first instance European

Waste Acceptance Code (EWC) 15 01 06 (mixed packaging that are not significantly contaminated) should be used as the default code for all FFE material when handing over to a disposal contractor.

1.9 It is sometimes difficult to visually determine if enclosed stores are fully expended e.g. fired smoke grenades. However there are almost always indicators that the store is expended (less any stores separately notified). It may be assumed that if a pyrotechnic store functions, i.e. is not a blind or a misfire, then for disposal purposes, the energetic material will have expended and it may be regarded as FFE.

1.10 The burnt out remains of an individual pyrotechnic store, e.g. a smoke grenade, would not contain any pyrotechnic material but may contain residual ash that might present a hazard in some circumstances. Unless there are specific warnings that the ammunition it is likely to contain some significant residual hazard then it may be assumed that there are no other significant hazards and the appropriate EWC code 15 01 06 (mixed packaging that are not significantly contaminated) should be applied.

1.11 For a single fired smoke grenade there would be no residual hazard and it would be acceptable to dispose as non hazardous under the EWC code. If for some reason a consignment were large enough to suspect that the cumulative effect might present a hazard, for instance, 1,000 fired smoke grenades, then further advice should be sought from the disposal contractor or the chain of command. Further advice may be obtained from the munition PT who hold detailed information on the chemical compositions and associated hazards. Ultimately a sample of the material could be assessed by one of the hazardous waste contractors who offer such services. The contractor should still accept a hazardous consignment but under EWC Code 15 01 10* (hazardous but unspecified) or 15 01 10 (hazardous with specific hazard noted). If 15 01 10 is proposed then the full hazard assessment including knowing the composition of the waste and if it contains any of the hazardous properties H1-H14. There would be very few fired munitions with a specific hazard. Where it is known that there is a significant residual hazard, this will be noted in the In-Service documentation.

1.12 When the consignment is sent for final disposal in accordance with local instructions it is to be issued with a Consignment note.

2 DISPOSAL/DEMILITARISE

2.1 In addition there is a requirement to demilitarise materiel prior to its release to a waste contractor. The degree of demilitarisation will depend on the final disposal option taken. If the material is to be collected in specific receptacles and passed as fired but CFFE materiel, then there will be minimal requirement for demilitarisation. If the materiel is to be released to a non-specific disposal option and resembles a live store (can easily be mistaken by the civilian waste contractor as a live store) it must be visually demilitarised before release. Demilitarisation must render the item unrecognisable as the live item and may include crushing, breaking apart, burning, obliterating the markings etc. An appropriate risk assessment must be carried out prior to carrying out any physical demilitarisation during which process, appropriate controls are to be in place (e.g. PPE). Care must be taken to ensure that any packaging that could be mistaken by a civilian waste contractor as containing live stores is adequately demilitarised.

2.2 Remnants of fired munitions, e.g. the plastic remains of a fired hand held rocket body are only plastic and may be disposed of as plastic under local procedures. Note that they may still have to be visually demilitarised.

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CHAPTER 27

ANNEX F

MID CELL POINTS OF CONTACT

E MAIL :

DES WPNSDOSG-MID MAILBOX (MULTIUSER)

TELEPHONE NUMBERS:

CONTACT MID D FFE AS PREFERENCE.

MID C2 – 0306 79 80468 (CIV) 96 79 80468 (MIL)

MID D – 0306 79 80471 (CIV) 96 79 804671 (MIL)

MID D FFE – 0306 79 80469 (CIV) 96 79 80470 (MIL)

ADDRESS:

MID CELL
FIR 3A
#4304
MOD ABBEY WOOD SOUTH
BRISTOL BS34 8JH

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