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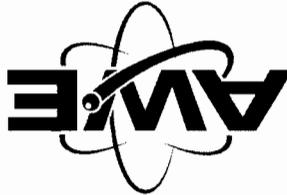
EMERGENCY RESPONSE PLAN

VOLUME 1

EMERGENCY ARRANGEMENTS

EXPLOSIVES TECHNOLOGY FACILITY

STOCKPILE MANAGEMENT
EXPLOSIVES BUSINESS UNIT



Aldermaston

Atomic Weapons Establishment

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Issue Status

Controlled Copies of this Facility Emergency Response Plan (FERP) are distributed in accordance with the Distribution List held within the XBU DMC and will be clearly marked UNCONTROLLED COPY
Uncontrolled copies are to be made readily available but shall not have a Copy Number

Document Control

This is a Category A as defined in the Company Quality Manual.

Document Category

<p>Originator: _____ Date: 28/01/09</p>	<p>Operations Manager _____</p>
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**EXPLOSIVES TECHNOLOGY FACILITY
EMERGENCY RESPONSE PLAN
VOLUME 1 - EMERGENCY ARRANGEMENTS**

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Contents

1 INTRODUCTION

1.1 This Facility Emergency Response Plan (FERP) supports the Safety Case for the Explosives Technology Facility (XTF), part of Stockpile Management's Explosives Business Unit (XBU).

1.2 It fulfils the requirement of Company Safety Instruction (CSI) 1001 (Emergency Arrangements), for the compilation and issue of a FERP.

1.3 It meets the emergency planning, instruction and information requirements of the following regulations:

- Management of Health and Safety at Work 1999 [R9]
- Control of Major Accident Hazards 1999 (as amended) [R9]
- Dangerous Substances & Explosive Atmospheres 2002 [R8]
- Manufacture & Storage of Explosives 2005 [R4(1)(c)]
- Electricity at Work 1989 [R25]
- Ionising Radiation 1999 [R12]
- Pressure Systems Safety 2000 [R11]
- Control of Substances Hazardous to Health 2002 (as amended) [R13]
- Control of Asbestos 2006 [R4(9)(c)]
- Construction (Design & Management) 2007 [R39]

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DOCUMENT OVERVIEW

2.1 The complete XTF FERP consists of a compendium of 4 documents. It is controlled and distributed in this way to allow emergency response actions and procedures to remain unclassified and freely available, while any supporting detail that may attract a higher security classification can be kept separate. Individual documents also allow for easy and cost effective amendment when necessary.

2.2

The FERP compendium consists of:

- Volume 1 - Emergency Arrangements
- Volume 2 - Emergency Response Actions
- Volume 3 - Information for Facility Emergency Responders
- Volume 4 - Supporting Information (Emergency Equipment)

2.3

Volume 3 also provides information to XTF Work Control Centre (WCC) and emergency response staff on the appropriate action required when contacted in support of an out of facility, but explosives related or off-Site incident, e.g.:

- explosives transport problem or emergency
- unexpected discovery of Explosives Substances or Articles (ESA)
- incident at off-Site location involving XBU or Facility lodger personnel

7.2 Formal changes will be issued to all registered holders of this FERF via the XBU DMC. Holders are required to incorporate the changes into their copy of the FERF as directed and may be required to certify that the FERF is up to date.

7.1 Any change to this Plan shall be authorised through the XBU Facility Modification Control process.

7 INCORPORATION OF CHANGES

6.2 The XBU Document Management Centre (DMC) shall hold a record of all changes to this FERF.

6.1 The copy number and issue status of each part of the FERF is shown on the cover page of each document.

6 STATUS

5.1 Enquiries relating to this FERF should be addressed, in writing, to:
 Facility Manager
 Explosives Technology Facility
 AWE Aldermaston

5 ENQUIRIES

4.3 Where revisions are necessary, every effort should be made to keep the overall classification of the document as low possible to ensure prompt availability at the time of an emergency.

4.2 Volumes 2, 3 and 4 are **UNCLASSIFIED**.

4.1 The complete FERF compendium carries the overall Protective Marking of **RESTRICTED** and must be appropriately protected in accordance with the requirements of the Company Security Manual.

4 SECURITY CLASSIFICATION

3.2 Volumes 2, 3 and 4 of this FERF are specifically intended to be freely copied and used as free-standing, uncontrolled documents.

3.1 This Volume of the FERF provides General Requirements including information regarding: security classification, document control and review periodicity.

3 USING THE FACILITY EMERGENCY RESPONSE PLAN

- 10.4 For ease of control and update, a list of Company, Business Unit and Facility documentation is provided in Annex B.
- 10.3 Amendments to the FERP shall be issued under the Incorporation of Changes procedure defined in Section 7.
- 10.2 It should also be reviewed immediately following any real emergency event and after a major Command Post or Field Training Exercise (CPX or FTX) as part of the exercise review process.
- 10.1 This FERP shall be reviewed every two years and at any time coincident with the formal review of the XTF Safety Case.

10 DOCUMENT REVIEW

- 9.3 Where there is a need to distribute uncontrolled copies of the document as a whole, or of individual volumes, they shall be clearly marked "UNCONTROLLED COPY". These copies must always include the full reference and issue status information from the original document to ensure that a check can be made of their currency against controlled copies.
- 9.2 Changes to any registered holder's details should be notified to the XBU DMC in writing. Applications for further controlled copies of the FERP should be made to the XTF Facility Manager in writing. Where a controlled copy of the FERP is no longer required, it should be returned to the XBU DMC.
- 9.1 Distribution of the printed document as a whole, or of the distribution of individual documents in isolation, shall be in accordance with the authorised Distribution List held by the XBU DMC.

9 DISTRIBUTION

- 8.1 Any requirement for an immediate change to the content of the FERP, or its interpretation, shall be promulgated by an appropriate means. The change shall take effect at once and shall be incorporated in the next formal issue.

8 IMMEDIATE CHANGES

11 SCOPE

11.1 This FERP covers the following:

- The area enclosed by, and all those premises and installations within, the XTF security fence [redacted] excluding the separately fenced areas comprising of:
 - buildings: [redacted] the associated part of the external fence and gate 15
 - the Hydrus construction enclave (to the North of the Facility), associated part of the external fence and gates: [redacted] & Hydrus
 - the HEFF construction enclave (between [redacted]), approach corridor and compound (south-west of [redacted]), associated part of the external fence and gate W
 - Buildings [redacted] and [redacted]
 - The area enclosed by all those premises and installations within the AWE(A) Burning Ground security fence.

11.2 The identified fenced out areas are neighbouring Facilities with their own emergency response plans. This FERP considers them in that context.

11.3 The hazards identified, and the emergency response actions as detailed, assume that all XTF associated operations are conducted strictly in accordance with the requirements of the safe operating envelope limits and conditions as defined within the Facility Safety Case.

11.4 The arrangements detailed within this FERP are complementary to the AWE Aldermaston emergency response arrangements and provide for the activation of the Site Emergency Response Plan when required.

11.5 Local instructions cover the immediate action responses of those at the scene of the incident, initial and subsequent actions by line management, and the notification/call out of the Site Emergency Services (Fire, Police, Medical, Safety Shift Manager (Engineering Services) and Health Physics).

11.6 Some incidents require notification to regulatory authorities "forthwith" or "without delay". This is included in the incident responses outlined in Volumes 2 and/or 3 as necessary.

11.7 This FERP is primarily intended as a collection of procedures and check lists for all personnel with key roles to play in the event of any emergency situation associated with XTF. Volumes 2 and 3 have been produced such that they can be easily copied and distributed as free-standing documents for immediate emergency reference.

11.8 The document as a whole provides useful background and supporting information for general emergency response planning, training and exercise requirements.

12.1 This FERP defines the arrangements for dealing with all reasonably foreseeable emergency incidents associated with XTF. The emergency scenarios considered are derived from, but are not limited to, those identified within the XTF Safety Case risk assessments.

12.2 The XTF is a Hazard Category 5 Facility used for the following processes involving Explosives Substances and Articles (ESA):

- Explosives production (mixing & pressing)
- Explosives characterisation (formulation & hazard properties)
- Explosives engineering (assembly, climatic trials & machining)
- Electronic explosive devices (manufacture, proofing & trials)
- Storage and transport (within the Aldermaston Site)
- Disposal (burning ground)
- Inspection (metrology & radiography)

12.3 The XTF consists of 174 buildings or other identifiable structures spread over an area of 300 acres, representing 40% of the Aldermaston site with a perimeter of 5km. Few of these buildings are manned on a permanent basis.

12.4 During normal working hours the Facility functions under the control of the Facility Manager (FM) organisation. During silent hours, control of the Facility is transferred to the AWE(A) Site Control, Safety Shift Manager.

12.5 Various physical and managerial controls are used to limit access to the Explosives Areas and keep the number of personnel present in the Facility to a minimum. The Explosives Areas are totally enclosed by fencing and access is only available through controlled entrances.

12.6 Personnel wishing to enter the area must do so via prescribed access control points which are either manned or controlled via a card access or combination security lock system. These access points are all secured during silent hours. In an emergency there are numerous other entry gates that may be used by the fire brigade or emergency response teams.

12.7 Direct access between the Hydrodynamics Division (HD) Facility and XTF is via the Transit Bay. The automated roller shutter doors of are controlled from the HD Facility WCC.

12.8 Occupied buildings, generally used for administrative and local supervisory management, are: and the main entrances. A further 3 administrative buildings, are situated to the south of the main Explosives Area.

12.9 The facility spans 2 isolation and evacuation zones. The majority of buildings are within zone 7, whilst those accessed through , or north through internal gate 33, are in zone 8.

12 FACILITY OVERVIEW

12.10	There is a network of hydrants fed from a dedicated fire-main for fire fighting purposes. This is supported by two emergency water supply tanks [REDACTED] each with a capacity of 12,000 gallons.
13 EMERGENCY RESPONSE SCENARIOS	
13.1	Safety Case Generic Scenarios
13.1.1	Generically applicable fault sequence end points for which emergency arrangements are considered:
	• Fire (including Vehicle Fire)
	• Security Incident
	• Site Emergency
	• Structural Collapse
	• Personal Injury/Illness
	• Electric Shock
13.2	Safety Case Specific Scenarios
13.2.1	The Facility Safety Case (including Environmental Addendum) identifies 19 significant fault sequence end points specific to the Facility for which emergency arrangements are considered:
	• Thunderstorm (or adverse weather conditions)
	• Explosion
	• Damaged or Endangered Explosives
	• Damaged Radioactive (RA) Material Container
	• RA, beryllium or [REDACTED] Contamination
	• Chemical Spillage
	• Oil Leak/Spill
	• Gas Leak
	• Flooding
	• Oxygen Depletion
	• Loss of Breathing Air
	• Electrical Power Failure
	• Ventilation Failure
	• Loss of Steam Supply
	• Loss of Compressed Air or Vacuum Supply
	• Loss of Shielding
	• Vehicle Breakdown
	• Laser Eye Strike
	• Intruder

13.3	Communication System Failure
13.3.1	Failure of communication systems is not identified in the Safety Case. However, action is required because these systems are relied upon for an effective emergency response capability within the Facility; either for an initial response (alerting people or the ECP) or subsequent command and control.
13.4	Asbestos Release
13.4.1	Asbestos is a common legacy material found within the facility. Action is required to restrict the spread of asbestos and potential adverse health effects if materials are damaged or suspect materials found unexpectedly.
13.5	External Incidents
13.5.1	The XTF Emergency Response telephone number is identified as contact point for a number of scenarios outside the Facility: explosives transport, unexpected explosives find and general off-Site working. This is to provide a contact point for communication of information relating to hazards and possible response actions at the location.
14	EMERGENCY CONSIDERATIONS (GENERIC SCENARIOS)
14.1	Fire (COMAH/Environmental)
14.1.1	The conventional hazards from a fire are: thermal radiation, smoke, explosion, degradation of structures (load-bearing, shielding and containment), and the possible destruction of instrumentation and control systems. In addition, fire in a facility may give rise to the release of radioactivity or the formation of especially toxic smoke.
14.1.2	There are few potential sources of fire within the XTF Explosives Areas due to the stringent controls on sources of ignition and the control of flammable/combustible materials. Where explosives storage or processing is carried out, building infrastructure, process tooling and operations are specifically designed to reduce the risk of fire or explosion.
14.1.3	Fire presents a particular hazard with ESA and precursor materials. The extent of any fire or explosion is expected to be limited by the application of Separation Distances (SD) and the deliberate absence of significant amounts of combustible materials other than explosives.
14.1.4	Staff should raise the alarm and evacuate the building promptly. First aid fire fighting appliances are provided because quick action may prevent explosives becoming involved in a fire and avoid a subsequent explosion. They should only be used if considered safe to do so and never if explosives are already or about to be involved.

14.2	Security Incident	14.2.1	Bomb, chemical, biological or radiological threats can be physical, usually in the form of suspicious parcels or vehicles, or by message, usually as telephone or e-mail communication. Suspicious parcels may be found within or adjacent to the Facility, or may be received through the post.
14.2.2		14.2.2	If considered safe to do so, make a brief visual inspection of the object to locate any positive identification markings. If the owner cannot readily be identified, restrict access to the immediate area but do not sound the fire alarm. Call for the Ministry of Defence Police (MDP) and alert the ECP, but do not use mobile telephones or radios within 25m of the item.
14.2.3		14.2.3	Telephone threats or warnings may be intended to be confusing and inaccurate. It is important that the person receiving the call extracts the maximum amount of useful information from the caller and if possible records the message verbatim.
14.3	Site Emergency	14.3.1	None of XTF is located within an Immediate Evacuation Area.
14.3.2		14.3.2	However, personnel anywhere on Site, may be endangered by an immediately adjacent critically incident, or from an explosion, radioactive or toxic material release from any other facility or within XTF.
14.3.3		14.3.3	In any such event, the Site Undercover warning will be broadcast over the site public address system requiring all personnel to seek immediate shelter in the nearest suitable building outside the immediate evacuation area, to close all external doors and windows, and to remain at that location until instructed otherwise. Putting the site under cover gives managerial control and clears the way for the site emergency services.
14.4	Structural Collapse	14.4.1	There are a number of potential causes of either a full or partial structural collapse of a building or maintenance scaffolding. The collapse may be effectively spontaneous, due, for example, to an explosion or the degradation of structural materials. Alternatively, the collapse may have an external cause such as extreme weather, seismic activity, or vehicle or aircraft impact.
14.4.2		14.4.2	Some of these more serious external events may well affect more than one facility or building, and the consequent response at facility level will then form part of the larger site emergency response effort.
14.5	Personal Injury/Illness	14.5.1	Personal injury could result from a range of non-radiological hazards including: exposure to toxic materials/chemicals, manual handling and lifting operations, exposure to diesel fumes, fire, electrocution, working at height, vehicle movements, slips, trips and falls etc.

14.5.2 Where the use of engineering measures cannot assure safety alone, appropriate Personal Protective Equipment (PPE) is selected and used in accordance with Company and local safety rules to mitigate hazards. All operators and maintenance staff must wear PPE as instructed. Staff shall not proceed with any work requiring Respiratory Protective Equipment (RPE) unless they are trained and fit to do so.

14.5.3 It is possible for personnel to fall ill for reasons not connected with their work. Under these circumstances, not only will they need medical attention for their condition, but, if they are performing an operation with safety or security considerations, their sudden incapacity may itself become the cause of a further incident.

14.6 **Electric Shock**

14.6.1 XTF contains high voltage as well as standard low voltage electrical equipment. Risk of electrocution is present during the setting up, maintenance and diagnostic testing of such equipment.

14.6.2 In addition to trained first aiders, many of the Approved Persons (Electrical) (AP(E)), Nominated Persons (Electrical) (NP(E)), and those people working with them are trained in resuscitation techniques and should be able to provide assistance. Posters outlining the response to an electrical incident, including resuscitation, are provided as an aide-memoir in electrical switch rooms and some other work rooms.

14.6.3 Conducting floors, present in some buildings for explosives safety, create an additional hazard for incidents involving electricity. If use of a defibrillator is required, the patient must first be removed from the conducting floor.

15 **EMERGENCY CONSIDERATIONS (SPECIFIC SCENARIOS)**

15.1 **Thunder Storm or Adverse Weather Conditions**

15.1.1 Thunder Storms are the result of an enormous build up and discharge of static electricity within the atmosphere. A build up of static electricity may occur in advance of other manifestations of storm conditions.

15.1.2 Buildings where explosives are processed are offered some protection by Lightning Protection Systems (LPS) which are intended to provide a safe pathway to earth for the electrical energy in the event of a lightning strike.

15.1.3 Advance warning from the Met Office Exeter Weather Centre is provided to Site and directly to XTF by fax. When conditions are forecast which may give rise to thunderstorms or other adverse weather conditions, the information is broadcast via the Site Public Address system. The local response should be initiated immediately on receipt of a warning fax, in accordance with Volumes 2 & 3, without waiting for the Site announcement.

15.1.4	Lightning warnings are provided as lightning risk levels:
	<ul style="list-style-type: none"> • Very high (risk 1) – lightning in the vicinity (≤23 miles from Site) • High (risk 2) – lightning in the area (>23 miles) and probable here • Low (risk 3) – lightning improbable • Very low (risk 4) – lightning extremely improbable • Nil (risk 5) – lightning extremely unlikely
15.1.5	<p>Only lightning risk 1 or 2 result in a Site announcement. Forwarning of a potential increase from a lower to higher risk provides an opportunity to avoid starting a lengthy process that may be difficult to stop should the weather deteriorate.</p>
15.1.6	<p>Certain buildings with frangible roofs may be susceptible to collapse due to high winds or snow loading. High winds can also make working at height dangerous and leave the access equipment (scaffold, ladder, etc.) vulnerable to collapse or damage. Lifting operations and equipment can similarly be affected.</p>
15.1.7	<p>High wind warnings are provided for conditions where gusts in excess of 35mph or 45mph are forecast. Working at height or lifting operations may be unsafe at lower speeds, which should be defined by the relevant risk assessment with appropriate controls, such as speed measurement, implemented.</p>
15.1.8	<p>Heavy rainfall is identified as a warning if >10mm is expected within 1 hour, or >20mm expected in 12 hours.</p>
15.1.9	<p>The depth of snow forecast is provided in the hazard summary (risk 1 for >1cm or 2 for <1cm), along with any indication of icy roads/paths.</p>
15.2	Explosion (COMAH/Environmental)
15.2.1	<p>The risk of an explosive incident external to any building within the Facility is low. The handling, movement and transport of explosives are conducted with care, precision, under strict control and when there are no prevailing adverse weather conditions.</p>
15.2.2	<p>All buildings containing explosives are designed and licensed for the purpose, with explosives limits set according to the proximity (separation distance) of other process, occupied or vulnerable buildings.</p>
15.2.3	<p>When it is known, or suspected, that RA material or beryllium is involved, the prime consideration is still protection of personnel from the effects of the explosion. However, if possible, given the circumstances at the time, any personnel who are located downwind of the RA or toxic aerosol should retire to an appropriate upwind evacuation building and advise the ECP of the situation.</p>

- 15.2.4 An explosion in a process building may create an asbestos hazard, both airborne and amongst debris. Evacuation to an upwind location should also be considered. Specialist advice from the Asbestos Focus Group must be sought before re-entry.
- 15.3 **Damaged or Endangered Explosives (COMAH/Environmental)**
 - 15.3.1 The possibility that explosives may become damaged or endangered during transportation, processing or testing cannot be overlooked. Where damage is an expected outcome of a test, specific local arrangements are included in the relevant operating instructions.
 - 15.3.2 Work in the area should be stopped and access restricted. Recovery activities will be highly dependent upon the nature of the incident, and will be determined by the Facility Emergency Controller (FEC), in liaison with technical advisors and/or the Facility Manager, following a suitable and sufficient risk assessment.
- 15.4 **Damaged RA Material Container (Environmental)**
 - 15.4.1 Damage to radioactive material containers used within, entering or transiting the Facility is a possibility. Damage to outer containments may be readily apparent, however, damage to inner containments may be less apparent.
 - 15.4.2 Damage can be as a result of mishandling, faulty packaging or a traffic accident. Every effort should be made to assure that no leakage has occurred and that risks to staff and the environment are minimised. The area may need to be cordoned-off, or container moved to a more suitable location for inspection. Health Physics support may be required.
- 15.5 **RA, Beryllium or [REDACTED] Contamination (COMAH/Environmental)**
 - 15.5.1 Various configurations of test specimens are assembled within the Facility, some of which contain hazardous materials including: radioactive, beryllium and [REDACTED]. Damage to assemblies caused by mechanical or manual handling failures could lead to localised contamination.
 - 15.5.2 As well as the risks to health and environment posed by these materials, the [REDACTED]
 - 15.5.3 Access to the area surrounding an incident should be restricted, the ECP informed, and Health Physics support requested in the case of beryllium or radioactive materials.

15.6	Chemical Spillage (COMAH/Environmental)	15.6.1	A number of substances are used within the Facility, which must comply with the Company Controlled, Restricted and Prohibited substances list; appear on the facility COMAH inventory if applicable, and assessed for use in accordance with Control of Substances Hazardous to Health (COSHH) Regulations.
15.6.2		15.6.2	Safety Data sheets and special handling instructions must be available at the location, section Document Control Centre (DCC) and ECP.
15.6.3		15.6.3	Local procedures/plans are in place to specify the appropriate clean-up action to take in the event of a spillage. These should also be identified on any Permit-to-Work (PTW), Work Authorisation Form (WAF), Operating Instruction (OI) and/or Method Statement.
15.6.4		15.6.4	If a spill or leak occurs, or is discovered, and is within the scope of local contingency plans (such as a limit to its size or location), it should be dealt with accordingly and the WCC notified. There should be no delay in instigating the emergency response procedures.
15.6.5		15.6.5	If there is any uncertainty about the significance of any incident it must be treated as serious. The individual discovering the spill, or their supervisor, shall inform the ECP as soon as practicable of the event and where appropriate raise an incident report.
15.7	Oil Leak/Spill (COMAH/Environmental)	15.7.1	There are a number of items of plant which use significant quantities of oil, such as presses. While an oil leak may not have a significant immediate life or health risk, the environmental consequences may be significant. There should be no delay in instigating the emergency response procedures.
15.8	Gas Leak (COMAH/Environmental)	15.8.1	A number of different types of gases are in use in the Facility, either in fixed or temporary installations, meeting the requirements of Pressure Systems Safety Regulations. All gases stored or used have been subjected to a local risk assessment. Safety Data Sheets and special handling instructions are available at the workplace, section DCC and the ECP.
15.8.2		15.8.2	In addition, [REDACTED] from the vicinity of [REDACTED].
15.8.3		15.8.3	Where a gas leak has occurred or is suspected, staff should retire from the immediate vicinity, isolate the gas supply if possible, restrict access to the area and notify the ECP.
			This is managed by the Director Infrastructure's Site Utilities Group (SUG).

15.9	Flooding (COMAH/Environmental)	15.9.1	This FERP considers flood by rainfall, where water may have entered a building, or internal leakage of steam/water due to pipe fracture, taps being inadvertently left running or operation of a pressure relief valve.
15.9.2		15.9.2	Where a leak or ingress of water has been discovered, consideration should be given to the isolation of electrical supplies where plant or equipment may be affected. The ECP should be notified at the first opportunity.
15.9.3		15.9.3	Flooding can also occur due to the activation of protective quench systems associated with explosives machining.
15.10	Asphyxiation by Oxygen Depletion	15.10.1	Bottled gases are used within various buildings within the Facility as part of the processes. These include: nitrogen for purging purposes, sulphur hexafluoride as high voltage electrical insulation, argon or helium for inert atmospheres, and propane for explosives hazard testing.
15.10.2		15.10.2	LPG, propane or acetylene may also be brought in to the Facility for welding, cutting or roof repair operations in support of maintenance or construction activities. These are not routine and require special authorisation.
15.10.3		15.10.3	Liquid nitrogen is also used to store items at very low temperatures or cool process equipment. A significant leak or spill of this liquid can release a large volume of gas in to the work place, displacing oxygen and resulting in a risk of asphyxiation.
15.10.4		15.10.4	If an oxygen depletion alarm sounds or leak has occurred, or is suspected, staff should evacuate the immediate vicinity, isolate the gas supply if possible, restrict access to the area and notify the ECP.
15.11	Loss of Breathing Air	15.11.1	Various types of respiratory protection are in use in the Facility. Some RPE is self contained whilst some is dependent on bottled supplies, e.g. compressed air fed breathing air hoods/respirators.
15.11.2		15.11.2	All RPE used in the Facility is subjected to regular operational and functional checks. All personnel who have a need to use RPE are trained in the use of that equipment and medically assessed as fit to work wearing it.
15.12	Electrical Power Failure	15.12.1	The electrical supply can suffer interruption for a variety of causes, including: total failure of the electrical supply to the Site, sub-station failures, local electrical circuit failure or operation of a protective device (residual current or fuse).

15.12.2 All electrical systems within the Facility are designed to "fail safe" and no safety essential services have been identified. However, staff using equipment providing a safety function (such as LEV) should make safe and leave the vicinity if necessary.

15.13 **Ventilation Failure (including Air Conditioning and Refrigeration)**

15.13.1 There are a number of work areas equipped with local exhaust ventilation (LEV) or engineered ventilation systems in order to protect workers from the possible build up of noxious or explosive gases and fumes arising from production or test activities.

15.13.2 Some explosives begin curing and other flammable materials degrade more rapidly at room temperature. To extend the life of these materials they are stored in refrigerated or air conditioned environments. While failure of such plant and equipment will cause no immediate danger, the risks to quality and usability of the materials may be elevated.

15.13.3 Humidity control is provided in some areas for safety and/or quality reasons. Failure of these systems will not cause an immediate danger, but sensitive materials should be made safe until conditions are corrected for safe handling.

15.14 **Loss of Steam Supply**

15.14.1 The Site steam-main, managed by SUG, supplies saturated steam at 3 barg (42psi) to many buildings within the Facility. The steam pressure to each building is regulated according to its needs. Steam is used to provide process and general heating, either directly or via warmed water.

15.14.2 Failure due to a pipe rupture or operation of an over pressure device is potentially dangerous as there may be an uncontrolled escape of saturated steam at high pressure.

15.14.3 Failure of the steam supply to the Facility climatic chambers and other heating systems will often trigger an automatic shut down. This will not lead to an explosive hazard but may well lead to a failed test or process.

15.15 **Loss of Compressed Air or Vacuum Supply**

15.15.1 Many processes and plant operations within the Facility are dependent on a continuous supply of compressed air and/or utilise a local vacuum pump.

15.15.2 DI SUG is responsible for maintaining the Facility air-main pressure at 6 barg (85psi). Back-up compressors are available and are automatically switched into operation when required.

15.15.3 Some processes have local air compressors which are needed to supplement the Facility air main or act as stand-alone compressors. These are maintained by the DI Asset Care (Maintenance) Team and any faults or failures must be brought to their attention as soon as possible.

- 15.15.4 Vacuum systems and services are provided local to the building or area where they are required. In all cases where a vacuum needs to be maintained, there are local written instructions and training given to staff for the appropriate emergency response if the vacuum reduces or fails.
- 15.16 **Loss of Shielding**
 - 15.16.1 The Facility contains a number of radioactive sources and X-ray equipment, generally used for radiographic inspection purposes. Loss of, or damage to, shielding could result in the exposure of personnel to ionising radiation in the immediate area of the source. Local contingency plans are in place where sources are used routinely.
 - 15.16.2 As soon as it is known, or suspected that shielding has been compromised, staff should immediately evacuate the area, isolate any X-ray equipment if possible and restrict access. If within the scope of local contingency plans, they should be followed and the ECP informed as soon as practicable.
- 15.17 **Vehicle Breakdown**
 - 15.17.1 The breakdown of a vehicle within the Facility may not pose an immediate risk. However, dependent on the location of the breakdown, other activities may be compromised, such as the transit of emergency vehicles or the movement of explosives and/or RA materials. Action should be taken to effect repairs, remove the vehicle or reroute other traffic as appropriate.
- 15.18 **Laser Eye Strike**
 - 15.18.1 Damaged to the eye can be caused by a laser as a consequence of: failure to wear, or failure of PPE, or the malfunction of the laser or interlocks.
 - 15.18.2 It is essential that expert medical attention is sought immediately for an incident where eye damage has been caused or is suspected. The Emergency Services should be advised immediately using the term "Laser Eye Strike" which will illicit the correct response.
 - 15.18.3 Details of the laser power, wavelength and mode of operation (continuous or pulsed) need to be communicated to medical treatment staff. Each room should have a "laser hazard card" with this information to accompany the patient. This should also be available in the ECP for all Facility lasers.
- 15.19 **Intruder**
 - 15.19.1 Due to the nature of AWE's activities, it could be the focus of peaceful demonstrators or criminal/terrorist organisations. Once on Site, it is possible for an intruder to gain access to the XTF.
 - 15.19.2 It is essential that any intruder is quickly located and apprehended before they put themselves or others at risk from operations, any damage is sustained, or security is further compromised.

15.19.3	Where operations could pose a risk to intruders or responding MDP officers, they should be made safe as quickly as possible.
15.20	Communication Systems Failure
15.20.1	The Facility relies upon communications for safe operations and an effective emergency response capability. They are required for: staff to raise an initial alert, alerting them of other incidents, and the subsequent response. They include:
15.20.2	<ul style="list-style-type: none"> • landline communications (local or Site-wide) • Public Address (local or Site-wide) and local intercoms • mobile communication systems (radio, mobile telephone, or pagers) Substitution of an existing system by an alternative should be considered to enable work to continue (using radios to replace landline communications or supplement the PA system for example). Where this is not possible, hazardous work should not be permitted to continue.
15.21	Asbestos Release
15.21.1	Routine surveys monitor the condition of all known asbestos, which is identified in the Facility Asbestos Register. Reference to this is made before allowing work tasks to proceed in close proximity to asbestos.
15.21.2	If materials known, or suspected, to contain asbestos are found, disturbed or damaged, access to the area should be restricted to prevent potential inhalation or wider contamination. The ECP should be informed immediately. Reference to the facility register and advice from the Asbestos Focal Group should be used to determine the correct recovery procedure.
15.22	External Incidents
15.22.1	The consignment documentation for off-Site explosives Transport identifies the ECP telephone as the Emergency Contact Number. A copy is held with the WCC so that information about the load can be communicated to responding emergency services if required.
15.22.2	The history of AWE and the Site's prior use as an airfield has not always been documented. It is therefore possible for munitions or explosive substances articles to be found during construction, maintenance, refurbishment or routine operations. Expertise within XBU or the wider explosives community can be used to identify the item and make appropriate arrangements for its safe recovery and disposal.
15.22.3	With personnel working off-Site, particularly with explosives, it is essential that the same AWE standards are applied as for on-Site work. Arrangements have been made for teams associated with XTF to use the ECP contact point to report incidents, which can then be disseminated to the relevant Group Leader for information and decisions on the appropriate action to take.

17.2.4 Some linked fire alarm systems also alert nearby buildings by sounding the evacuation bell intermittently. Staff should take shelter in, rather than evacuate, buildings with intermittent ringing bells.

17.2.3 Some of the more modern laboratories and process areas also contain smoke/fire detection systems as well as manually operated call points. When activated they sound an audible rather than silent alarm.

17.2.2 In areas where alarms are not fitted in buildings, battery operated call-points with alarm sounder and warning light are strategically placed to provide coverage to groups of buildings in 11 zones. They replace post mounted hand-bells. The call-points are linked by radio telemetry to [REDACTED] where the location of activation is identified and the Fire Service automatically called.

17.2.1 The type of fire alarms within the Facility range from the simplest of hand operated bells mounted on posts (within the Burning Ground Explosives Area) to fully integrated building alarm systems with automated Fire Service notification.

17.2 Fire Alarms and Detections Systems

- Fire alarms – fitted in some of the occupied offices, process buildings and externally around the grounds of the Explosives Area
- Intruder/security alarms - fitted as necessary to XTF explosives and non-explosives buildings
- Plant condition alarms - indicating that plant or equipment has failed or is operating outside its intended range; fitted in climatic chambers, refrigerated explosives store houses/magazines, and some process rooms
- Process alarms – indicating the status of process equipment and warning of any hazard generated whilst it is operating
- Oxygen depletion alarms - indicating an atmosphere deficient in oxygen; fitted in some process buildings and laboratories

17.1.1 There are several types of automatic alarm system used in XTF (summarised in Annex A):

17.1 Alarm, Detection and Security Systems

17 ALARM, DETECTION AND SECURITY SYSTEMS

16.1 FECs and AWE emergency services responders are trained and practised at making dynamic risk assessments in emergency situations. By their nature, emergencies are not planned. The effective use of dynamic risk assessment at the time of an incident, coupled with the generic risk assessments referenced in this plan (Annex B), should ensure that emergencies are dealt with rapidly and appropriately, with due regard to the safety of affected persons, responders, the environment and AWE assets.

16 EMERGENCY RESPONSE RISK ASSESSMENT

17.3	Intruder Detection Systems	Intruder Detection Systems (IDS) are fitted as required to XTF buildings and where installed, building entry is alerted to the MDP via a telemetry link as appropriate.
17.3.2		If either MDP or the Shift Engineer considers that unauthorised access to the building could have occurred, MDP will respond accordingly and contact the appropriate Facility staff. During silent hours contact will be made via the Site Response Group call out list.
17.3.3		Building users must familiarise themselves with the operation of the systems and associated Facility requirements. Any problems or malfunctions must be reported immediately to the XTF WCC and MDP.
17.4	Process and Plant Condition Alarms	
17.4.1		Climatic Chambers - Any fault condition in a Climatic Test Chamber will activate an alarm system in building [redacted] with the nature of the fault being shown on an alarm control panel. During silent hours, the alarm signal is transmitted to the Site Control Safety Shift Control Room. However, to determine the nature of the fault, the Shift Engineer will need to attend at [redacted] and interrogate the local panel.
17.4.2		Refrigerated Flammable Materials Store - A fault condition in a refrigerated Flammable Materials Store will activate amber flashing lights external to the building, adjacent to the entrance. This does not indicate a hazard, since a rise in the storehouse temperature to ambient will not adversely affect the safety of stored materials.
17.4.3		Pump Rooms/Houses - There are a number of pump rooms and pump houses which, while located within the XTF boundary, are the responsibility of, and maintained by DI. Staff hearing alarms originating from pump rooms and pump houses should contact the XTF WCC at the earliest opportunity and advise them of the location of the alarm. WCC staff will contact the DI WCC to advise them of the situation.
17.4.4		Non Destructive Test/Radiography Alarms - Gates to, and appropriate laboratory entrances in, buildings [redacted] are fitted with [redacted]

17.4.5 **Climate Controlled Process Rooms** – Some process rooms have temperature and humidity control to ensure correct working conditions for quality and/or safety reasons. Automatic red flashing lights outside the relevant room, or an audible alarm, indicates that current conditions do not meet the requirements. There is only a hazard if materials requiring the conditions for safety (e.g. anti-static) are being processed.

17.5 **Oxygen Depletion Alarms**

17.5.1 Oxygen depletion alarm systems are installed where there is a risk of asphyxiation. This local alarm provides building occupants with audible and visual warning of oxygen depletion in the area.

18 EMERGENCY RESPONSE ACTIONS

18.1 **Immediate Emergency Response Actions**

18.1.1 For all serious (or potentially serious) incidents, the Emergency Services are contacted by phoning [REDACTED]. When connected, they should be informed about the nature and seriousness of the incident.

18.1.2 In the event of any serious incident, the Facility Emergency Control Point (ECP) shall be informed as soon as possible by phoning [REDACTED]. For other incidents, such as something dealt with by local contingency plans, the FEC may be notified by calling the WCC instead.

18.1.3 The MOD Police and the AWE Fire Service hold master keys to the gates of all compartmented areas. If any gate into a secure area is opened, the MOD Police will dispatch an officer to control subsequent entry through the gate.

18.1.4 The Emergency Services will be met at rendezvous points (RVP) close to the entrances to the Facility to be briefed on the nature of the incident and on any specific hazards involved. Choice of RVP depends on the incident location and is described in Section 20.8.

18.1.5 Detailed actions to be adopted by staff in the immediate vicinity of each of the emergency situations considered above are provided in Volume 2.

18.1.6 Guidance and advice for the FEC and other facility emergency response staff is provided in Volume 3.

18.2 Actions in Response to Alarms

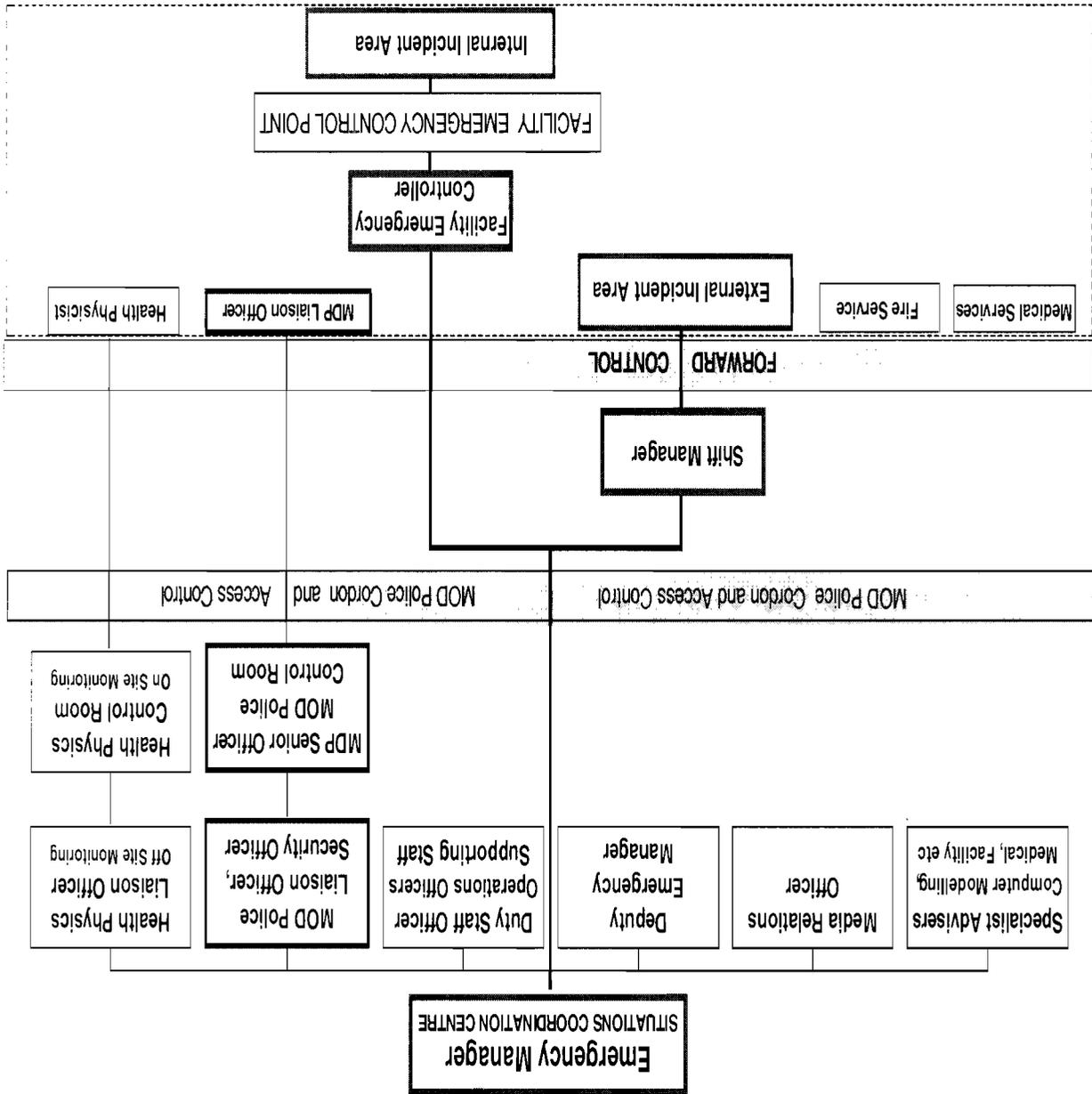
18.2.1 The immediate actions to be taken by staff in response to alarms are provided in Volume 2 of this FERP.

18.2.2 Activation of an immediate evacuation alarm in any facility on the Aldermaston site will automatically invoke the Site Emergency Response Plan. This, in turn, will involve the activation of the AWE(A) Situations Co-ordination Centre (SCC).

- 18.2.3 Messages over the Public Address system will be used to communicate specific requirements or information from the SCC to individual buildings or the site in general.
- 19 SHELTERING, EVACUATION AND MUSTER**
- 19.1 Evacuation & Sheltering**
- 19.1.1 In the event of a site emergency (criticality, explosion, release to the environment of toxic or radioactive materials), **personnel should shelter inside the nearest suitable building as quickly as possible.**
- 19.1.2 Where ventilation systems exist, consideration should be given to shutting down the processes and switching off any systems that will result in air being drawn into the building. This includes all fans, extract as well as intake because extracts will draw air inside from other locations.
- 19.1.3 Staff should then remain at that location until otherwise instructed by local management or by Public Address announcement.
- 19.1.4 The choice of evacuation route and shelter/muster location is influenced by the location and type of work being done in relation to the location and nature of the incident.
- 19.1.5 For this reason, no specific evacuation routes are specified. However, certain buildings have been designated Emergency Assembly Buildings (EABs) and are always unlocked during normal working hours.
- 19.1.6 Some buildings have hardened control rooms, designed to protect staff from incidents during processing. Local procedures define when sheltering rather than evacuation is appropriate.
- 19.1.7 Permanent Explosives Area staff and visitors must be aware of evacuation procedures and the location of **all** EABs before being granted unescorted access to the XTF Explosives Areas.
- 19.1.8 Any non-Explosives Area staff working within the Facility shall be provided with details of the nearest EAB to their work location by the WCC.
- 19.1.9 Based on the recorded response to exercise evacuations, the estimated elapsed time to evacuate staff to an appropriate EAB or other suitable building is 3 minutes.
- 19.2 Muster (General)**
- 19.2.1 Each of the Facility's operational sections has a nominal roll, which is kept up to date and notified to the WCC periodically for use in the ECP.

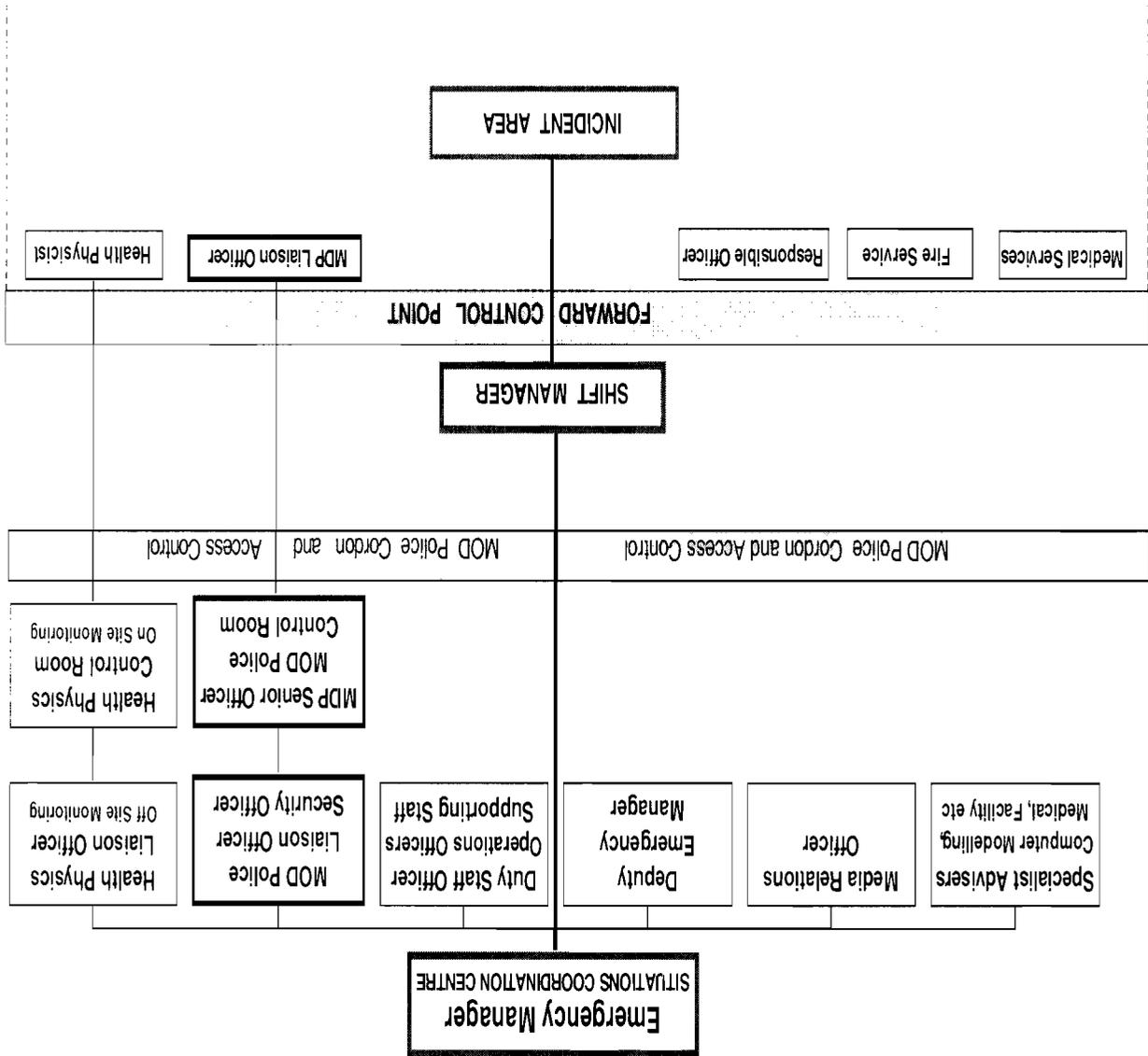
- 19.2.2 During a facility or site emergency requiring a muster, each section will report to the ECP the confirmed or expected location of the staff on its nominal roll. They will advise of any personnel that cannot be accounted for and any additional personnel that are sheltering within their section buildings.
- 19.2.3 At normally unoccupied EABs, personnel should conduct a roll-call by making a list of those sheltering and inform the ECP directly. By collating the nominal rolls from the operational sections and any additional information from any normally unoccupied EABs, Facility emergency response staff can determine whether there are personnel unaccounted for and make judgements on search, rescue and subsequent evacuation requirements
- 19.2.4 Assuming the worst case, where all areas of the Facility are required to take cover, it may take as long as 30 minutes to conduct a full muster.
- 19.2.5 Some administrative buildings are occupied outside the working hours of the WCC and therefore emergency response staff. Staff should conduct a roll-call and report directly to the Site Muster Bureau, if required during a site emergency, or locally to the emergency services if an evacuation is required.
- 19.3 **Muster (Explosives Areas)**
- 19.3.1 Entry to the XTF Explosives Areas is via authorised and controlled access points where staff are issued with an identification plaque and entry to the area is recorded in a log. There are three types of plaque issued on entry:
 - for Explosives Area permanent staff that are authorised for unescorted access and whose expected location can normally be determined from the resident location, section work plan or entry log
 - for visitors authorised for unescorted access and whose expected location is normally recorded in the WCC work authorisation database or entry log
 - for visitors who are under the control of a competent Explosives Area escort. The expected location is normally recorded in the WCC work authorisation database or the entry log
- 19.3.2 From the issue of plaques, entry log and/or work authorisation database, the FEC and other emergency response staff can determine the likely location of personnel within the Explosives Areas.

Figure 20.2: Control structure (incident & effects both in and outside Facility)



- 20.2 External Control of Incidents
 - 20.2.1 The Chief Fire Officer will, by law, and having been suitably briefed on the nature of all possible hazards by the FEC, take control at the scene of any fire or suspected fire. Control will be handed back to the FEC when the fire is out or discounted.
 - 20.2.2 The MDP will, by law, and having been suitably briefed on the nature of any possible hazards by the FEC, take control at the scene where security/criminal activities are concerned or suspected. Control will be handed back to the FEC when security/criminal activities are no longer of concern.

Figure 20.3: Control structure (incident & effects external to Facility only)



20.3	Local Incident Control	<p>20.3.1 Within the Facility, the FEC has delegated authority to act on behalf of the Facility Manager in the control and management of the incident and its responses. If the incident has, or has the potential for, effects outside the Facility, or there is the possibility for escalation, the FEC should declare a "Facility Emergency" at the earliest opportunity to activate the SCC.</p>
20.4	Control of Incidents	<p>20.4.1 On assumption or resumption of control, the FEC will take over responsibility for the co-ordination of all emergency response and recovery actions at the scene of the incident. They will be advised and assisted by the AWE emergency services responding (Fire, Police, Ambulance, Health Physics, Shift Manager, etc.) and other back up support services provided by the SCC. The FEC must decide, in conjunction with those at the scene and in consultation with the SCC, on:</p> <ul style="list-style-type: none"> • the severity of the incident • the immediate actions necessary to stabilise the situation • the subsequent recovery actions necessary to restore the situation to normal
20.5	General Requirements	<p>20.5.1 In carrying out this responsibility, the FEC must ensure that emergency and recovery staff are not put at any unnecessary or unacceptable risk. They must also consider the safety of all other personnel within the incident area and within the immediately surrounding area.</p>
20.5.2		<p>A list of persons appointed to act as the FEC for XTF and those from whom supporting appointments can be made is published by the Facility Manager. Staff are nominated according to their particular expertise and training.</p>
20.5.3		<p>The FEC selects a support team according to the needs of the incident from facility and operations staff available in the WCC and at the scene. If additional support is required, it should be requested through the SCC.</p>
20.5.4		<p>In the event of the limited availability of supporting staff, and according to the needs of the incident, it may be necessary and acceptable to amalgamate the responsibilities of two or more appointments.</p>
20.6	Emergency Control Point	<p>20.6.1 A dedicated area in XTF building (adjacent to the Facility WCC) is set up as the ECP. There are toilets and drink making facilities nearby for staff welfare. Emergency lighting is fitted in case of power failure.</p>
20.6.2		<p>The ECP is located outside the Class D (inhabited building) distance for all explosives licensed buildings and is therefore reasonably protected from potential explosion effects from them.</p>

20.6.3 Situated to the south-west or west-south-west of buildings where radioactive materials may be present, it is up-wind from all potential release sites for the majority of the time; prevailing winds being south-westerly for 97% of the year.

20.6.4 The function of the ECP in an emergency is to provide facilities to:

- control access to the Facility
- maintain communication links
- co-ordinate the internal response to the emergency situation
- plan and implement recovery operations

20.6.5 The ECP is equipped to provide communications (Section 23.4) and has sufficient desk space and seating. White boards and relevant maps are fixed to walls for use as required. Useful telephone numbers provided in the ECP are identified in Volume 3.

20.6.6 If the incident compromises the ECP, or if the FEC determines that an alternate location is preferable, an "ECP Grab Bag" can be used to help set up a remote ECP or combined ECP/Incident Control Point (ICP). The content of this bag is described in Volume 4.

20.7 **Incident Control Point (ICP)**

20.7.1 In many of the emergency scenarios, following consultation with the FEC, the emergency services will move forward toward the incident location and establish an Incident Control Point (ICP) at a place of safety.

20.7.2 Depending on the nature of the incident, the FEC may deploy a Facility Incident Control Officer (ICO) to the ICP to advise at the scene and provide a Facility communications link between the ICP and ECP.

20.7.3 A Forward Control Vehicle is available to emergency responders and can be deployed to the ECP or ICP or any other location as appropriate. The Forward Control Vehicle may be requested by any responding organisation, including the Facility, via the SCC.

20.8 **Rendezvous Points (RVP)**

20.8.1 The RVPs have been chosen to be beyond, and avoid the need to travel within, the licensed Class D distance of explosives buildings to afford protection to responders. They are at:

- building (in the vicinity of Gate 12 (in the vicinity of [REDACTED] for incidents occurring north of [REDACTED])
- building (which provides shelter until entry through Gate 5 is agreed) for incidents occurring in the Explosives Machining Section (buildings: [REDACTED])

20.9.3 The FEC may decide that further evacuation of people sheltering in an EAB in response to an incident is desirable. Alternative arrangements will be communicated at the time.

- (for [redacted])
- [redacted] foyer (for [redacted])
- [redacted] entrance (for [redacted])
- [redacted] car park (for [redacted])
- Hard-standing adjacent to decoy pond (for [redacted])
- [redacted] (for [redacted])
- [redacted] (for [redacted])

20.9.2 Should evacuation from a normally occupied EAB, or other building outside the Explosives Area be necessary the evacuation/muster points are:

- within the main XTF Explosives Area:
- within the Burning Ground Explosives Area:
- outside the Explosives Areas:

20.9.1 Due to the large geographical area, number of buildings and their dispersed nature, there are a number of EABs. A copy of Volume 2 of this FERF is available at each EAB identified below:

20.9 Emergency Assembly Buildings (EAB)

20.8.2 For incidents outside the Explosives Areas, the RVP will be established at a safe location in relation to the incident. The RVP points are described in Section 20.8 and reiterated in Volumes 2 & 3.

- (Emergency Service access via [redacted]) for incidents occurring in the Burning Ground
- adjacent to [redacted] (access via [redacted]) for all other incidents

22.3 It is important that all post incident recovery actions are very carefully considered. It is important to stabilise the situation as rapidly as possible, but it is also important to avoid any unnecessary risk to personnel and any possibility of further complicating the recovery situation.

22.2 The post incident recovery phase assumes that all the necessary immediate response actions have been satisfactorily implemented, that evacuation of the immediate area has taken place, that all known casualties are being attended to, that any fires are out and that the risk of any explosion has been minimised.

22.1 The post incident recovery phase covers both the initial and longer term recovery actions necessary, first to control and stabilise the situation, and then to return the situation to normal. General principles and guidance for Facility emergency responders is provided in volume 3 of this FERP.

22 POST INCIDENT RECOVERY

21.6 Notification of silent-hours work under WCC control, or office work by named individuals, is provided to the MDP and the Shift Manager in advance to support a Site muster if required. At the start of such work, the MDP should be informed of details of all those present (by the WCC or individuals) and of any changes.

21.5 Duplicate keys for all facility buildings are held in a security cabinet. The combination is available in an emergency through information held in another security container (near the WCC) for which the Shift Manager has a key. Some buildings have push-button access control in addition to key locks. The button combination is also provided with the duplicate key arrangements.

21.4 To assist with the initial response in silent hours, information about the location of hazardous materials (explosives, radioactive, beryllium and flammable) is collated at the end of each day. This is displayed prominently at the WCC for access by silent-hours responders.

21.3 During silent hours, the EM will be on call but not physically available on site. The Shift Manager will act for the EM and will take on the responsibility for the overall co-ordination of all emergency response actions until the EM arrives on site.

21.2 The Shift Manager will take over control from the Chief Fire Officer or the MOD Police until the arrival at the scene of a nominated Facility Representative, if required.

21.1 This FERP remains valid in its entirety during silent hours. Personnel can be contacted by referring to the call-out list held by MDP, SRG and the Shift Manager. All Emergency Services are available by dialling [REDACTED].

21 SILENT HOURS RESPONSE

22.4 Where it can be positively ascertained that there is no possibility of the consequences of the incident extending beyond the confines of the Facility building(s), the necessary recovery actions shall be co-ordinated by the FEC and Facility staff in consultation, as necessary, with the SCC and the appropriate Emergency Services.

22.5 Where the situation indicates that the possibility of high radiation levels or the release of radioactive or toxic materials outside of the confines of the Facility building(s) cannot be excluded, the necessary recovery actions shall be co-ordinated by the Shift Manager, in conjunction with the FEC and Facility staff, and in consultation, as necessary, with the SCC and the appropriate Emergency Services.

22.6 Re-entry to the incident area shall be strictly controlled until it has been positively confirmed that a hazardous situation no longer exists. Due regard must be given to preservation of evidence to support subsequent investigation of what caused the incident. The re-entry procedure and controls to be applied are detailed in Volume 3.

22.7 Recovery will depend largely on the type of event. Where explosives are concerned the FEC will call on the advice of the process managers in order to effect a safe recovery plan.

23 COMMUNICATIONS

23.1 Facility Communications

23.1.1 The communications systems normally available within XTF are:

- AWE(A) exchange telephones available in all normally occupied buildings
- facility approved two way radios
- facility approved mobile telephones
- emergency telephones (strategically located on the main evacuation routes); locations described in Volumes 2 & 3
- Site Public Address system within XTF has a number of satellite stations which are equipped with microphones to enable local announcements to be made; locations are described in Volume 3
- intercom system for buildings: [redacted]

23.2 Fail-Back Telephones

23.2.1 If the AWE site telephone exchange completely fails, a "Fail Back Facility" system is brought into operation. Note: [redacted]

23.2.2 Fall-back telephones are located in buildings: (lobby), (foyer) and (corridor, opposite room 30). They are positioned in open areas where access is always assured.

23.2.3 These telephone handsets are burgundy (dark red) or bright red in colour for easy identification. Each fall-back handset is clearly marked with a green label describing its function.

23.2.4 Instructions for use of the fall-back facility and a list of the extension numbers which are linked to the system are included in Volumes 2 and 3 of this FER. They also appear on a green instruction label displayed adjacent to both the handset and its telephone wall socket.

23.2.5 Use of fall-back telephones shall be limited to emergency calls when the fall-back facility is in operation.

23.3 **Forward Control Vehicle Communications**

23.3.1 Communications available in the Forward Control Vehicle are:

- radio communications to all of the Site Emergency Response Groups
- provision for connection to the Site telephone network
- provision for the availability of mobile telephones where the site telephone system cannot be accessed

23.4 **Facility Emergency Control Point Communications**

23.4.1 Communications normally available in the ECP are:

- AWE(A) exchange telephones
- radios for issue
- mobile telephones for issue

23.5 **Emergency Assembly Buildings**

23.5.1 Communications normally available at the EABs are:

- AWE(A) exchange telephones

23.5.2 Facility approved radios/mobile phones may be deployed to EABs as necessary to support an emergency response or other prior contingency arrangement.

23.6 **Useful Telephone Numbers**

23.6.1 A list of essential telephone numbers is included in both Volumes 2 and 3.

23.6.2 A list of useful telephone numbers for Facility emergency response staff is also provided in Volume 4.

24	SITE EMERGENCY ORGANISATION
24.1	Situations Co-ordination Centre
24.1.1	The Situations Co-ordination Centre (SCC) is manned by senior members of AWE Emergency Response Staff, supported by scientific, technical and administrative staff, who may themselves, as required, summon expert advice and assistance from all parts of the AWE and MOD workforce.
24.1.2	The SCC operates under the overall control of an Emergency Manager (EM) acting on behalf of the AWE Managing Director. Although alerted each time the emergency services are called out, the SCC is not fully activated unless a "Facility Emergency" is declared (Section 20.3). In the event of any Site emergency, the EM is responsible for the overall co-ordination of all emergency response actions in relation to facilities, personnel and the environment. In this context, the SCC is also the focal point for interactions with all Local and National Authorities.
24.2	EM Support Staff
24.2.1	The EM support staff in the SCC will include: <ul style="list-style-type: none"> • SCC Duty Officer (a technical staff officer) • Director Communications (or representative) to act as a focus for all matters involving Public Relations, administrative support, next of kin, etc. • MOD Police Liaison Officer, to co-ordinate police activities and physical security of the overall response, and to organise the evacuation of staff and contractors, lodgers and visitors from selected areas of site if necessary • depending on the nature of the incident: <ul style="list-style-type: none"> • Health Physics Liaison Officer • Medical Officer • representative of the Chief Security Officer • members of Facility Management and Assurance Directorate
24.2.2	The EM may call in other experts to advise him/her as they see fit. An SCC Liaison Officer may be sent to the ECP or ICP to improve communication links with the SCC.
24.2.3	Support will also be available from SRG staff who are permanent civilian emergency response staff located close to the SCC. They are conversant with the AWE(A) emergency response arrangements and, during working hours, will usually be the first to arrive at the SCC.

25 EMERGENCY RESPONSE APPOINTMENTS AND ROLES

- 25.1 **Facility Emergency Controller**
 - 25.1.1 The FEC is appointed by the Facility Manager, after accreditation by Site Response Group and endorsement by Director Stockpile Management, and is responsible for:
 - ensuring the safety of all personnel in the Facility and surrounding area
 - co-ordinating all necessary actions to control and stabilise the situation
 - arranging for emergency support services
 - advising the Emergency Manager on the incident nature and severity of the incident
 - planning and implementing all necessary post incident recovery actions
 - 25.1.2 The FEC role is defined in detail within related document "Terms of Reference for Facility Emergency Controllers".
 - 25.2 **Incident Control Officer**
 - 25.2.1 The Incident Control Officer is appointed by the FEC at the time of the incident from locally accredited Facility Emergency Response Support Staff, preferably another FEC, responsible for:
 - co-ordinating all necessary actions at the scene of the incident to control and stabilise the situation
 - supplying the FEC with regular updates of the situation
 - 25.3 **Communications & Enquiry Officer**
 - 25.3.1 The Communications & Enquiry Officer is appointed by the FEC at the time of the incident from locally accredited Facility Emergency Response Support Staff, responsible for:
 - gathering and dissemination of information on behalf of the FEC:
 - face to face
 - by telephone (landline & mobile)
 - by radio
 - collating all incident and muster information as required
 - 25.4 **Board Operator**
 - 25.4.1 The Board Operator is appointed by the FEC at the time of the incident from locally accredited Facility Emergency Response Support Staff, responsible for:
 - keeping the boards up to date with ongoing situation information

25.5	Log Keeper	25.5.1	The Log Keeper is appointed by the FEC at the time of the incident from locally accredited Facility Emergency Response Support Staff, responsible for: <ul style="list-style-type: none"> recording all significant events, decisions, actions and messages
25.6	First Aid & Causality Liaison Officer	25.6.1	The First Aid & Causality Liaison Officer is appointed by the FEC at the time of the incident from locally accredited Facility Emergency Response Support Staff, preferably a First Aider, responsible for: <ul style="list-style-type: none"> co-ordination of First Aid support liaison with emergency medical services co-ordination of causality support in the immediate post incident period before they are transferred to the Medical Centre or Hospital co-ordinating welfare arrangements for evacuees and casualties
25.7	First Aider	25.7.1	First Aiders are trained staff responsible for: <ul style="list-style-type: none"> reporting their availability for first aid at the start of the working day so that the Facility can identify when sufficient numbers are available for operations to commence giving initial medical help at the incident site assisting the emergency services in looking after casualties before they are transferred to the Medical Centre or hospital
25.8	Ballistic Trauma First Aider	25.8.1	Ballistic trauma trained staff are first aiders with additional training. As well as first aid responsibilities they should: <ul style="list-style-type: none"> ensure they are fit (clean shaven and no contrary medical conditions) to wear a full face respirator on days reported as available
26	HEALTH ASSESSMENT REQUIREMENTS	26.1	Medical assessment of fitness to work is required for some emergency response roles in accordance with CS1405 (Health Assessment). The FM shall ensure that those nominated are properly assessed prior to appointment and regularly reviewed for the following roles: <ul style="list-style-type: none"> FEC First Aid Ballistic Trauma First Aid (wearers of respiratory protection)

Individuals aware of a change in fitness or medical status shall notify the FM as soon as practicable to ensure they are not put at risk and to identify a potential reduction in numbers of available emergency responders.

26.2

27 TRAINING REQUIREMENTS

27.1 **General**

27.1.1 The Director Stockpile Management is responsible for the appointment and for the determination of the minimum level of qualifications, experience and training of the Facility Manager.

27.1.2 The FM is responsible for the appointment and for the determination of the minimum level of qualifications, experience and training of all other appointments necessary under this FERF, in accordance with the AWE(A) Emergency Response Requirements Training Matrix.

27.1.3 All Facility emergency responders must have received appropriate instruction and training in relation to:

- XTF familiarisation (operations, hazards, adverse weather, alarms etc.)
- XTF local emergency arrangements
- XTF and Explosives Area Radio/Communications procedures
- Personal Protective Equipment Awareness (only if not a wearer)

27.1.4 Additional role specific training requirements are detailed in the following sections:

27.2 **Facility Emergency Controllers**

27.2.1 FECs must be accredited by the AWE Site Response Group and be appointed by the Facility Manager. The appointment shall be endorsed by the Director Stockpile Management. The FEC accreditation and appointment process is described in Emergency Response Arrangements Document: Process for Training and Accrediting Facility Emergency Controllers at AWE Aldermaston and Zone Controllers at AWE Burghfield.

27.2.2 The FEC shall have a good knowledge and understanding of the Facility, its operations, hazards and emergency arrangements.

27.2.3 The FEC shall as a minimum complete the following instruction and training:

- TOPSTAR (Site Emergency Arrangements)
- Emergency Management for Facility Emergency Staff
- Emergency Management 2 (Principles of Command and Control)
- Environmental Awareness
- SCC Acquaint

28.2 The FM is responsible for the planning and co-ordination of all Facility related exercises.

28.1 Detailed requirements for the planning and holding of exercises are given in Emergency Response Exercises Procedure Document)

28 EXERCISE REQUIREMENTS

27.5.1 In addition to successful completion of the First Aid at Work training, all Facility Ballistic Trauma First Aiders must successfully complete and renew the following training:

- Ballistic Trauma Management (3 year renewal)
- Initial (or Retraining) Full Face Respirator (2 year renewal)

27.5 First Aid (Ballistic Trauma)

27.4.1 All Facility First Aiders must have successfully completed the AWE First Aid at Work training course, renewable every 3 years.

27.4 First Aid

27.3.3 In addition they must support an appointed FEC during a training exercise, demonstration exercise or real emergency. A record of such training and performance shall be maintained.

- SCC Acquaint
 - Emergency Management 2 (Principles of Command and Control)
 - Emergency Management for Facility Emergency Staff
- and ideally:

- TOPSTAR (Site Emergency Arrangements)
- Environmental Awareness

27.3.2 Facility Emergency Response Support staff must as a minimum complete the following instruction and training:

27.3.1 Facility Emergency Response Support staff shall have a good knowledge and understanding of the Facility, its operations, hazards and their potential roles and responsibilities in support of an FEC.

27.3 Facility Emergency Response Support Staff

27.2.4 As part of a rolling programme, all appointed FECs must take on this role as part of a training exercise, demonstration exercise or real emergency. Records of such activities and their performance shall be made to support continued appointment. **Note:** There should be sufficient FTX and Table-Top Exercises (TTX) in any 24 month period for all appointed FECs to retain their accreditation through suitable demonstration.

- 28.3 Records shall be kept of all exercises held. There should be a brief "wash-up" meeting between key participants, directing staff, observers and Emergency Services (as involved) as soon as possible after each exercise.
- 28.4 When recommendations are made, these shall be followed up as soon as reasonably practicable. These could include further instruction, training and information, acquisition of more equipment or documentation, or a revision of this FERP. A repeat of the exercise may be useful to reinforce any lessons learned or demonstrate that any improvements work as intended.
- 29 **SUPPORTING INFORMATION**
- 29.1 Facility maps, building layout and service drawings (such as: electricity, water, drainage and steam distribution, fire alarm systems, etc.) are available at the ECP. This information is duplicated at remote RVPs (except [redacted]) to support any response from that location.
- 29.2 A full list of supporting information for emergency responders is provided in Volume 4.

Comment	Buildings Served	Type
<p>Manual activation of the alarm, by break-glass call points, sited at each emergency exit, sounds an audible evacuation alarm. Local alarm panel (identified in <i>italic type</i>) provides information regarding the zone of alarm activation, and alerts a group alarm panel or the AWE Fire Service by landline. Group alarm panel (identified in bold type) links related alarm systems and identifies the building or zone within which the alarm was activated, and alerts the AWE Fire Service by landline.</p>	<p>[REDACTED]</p>	<p>Electronic Fire Alarm</p>
<p>Manual activation, local and/or group alarm panel, and Fire Service alerting as for electronic fire alarm. Automatic alarm activation is via smoke & heat detectors, which activates the alarm panel and an audible evacuation alarm. Alarm panel, provides information regarding the location of alarm activation.</p>	<p>[REDACTED]</p>	<p>Automatic Fire Detection & Alarm</p>
<p>Manually operated call points on posts on escape routes from groups of buildings within the Facility. Group alarm panel (in [REDACTED], activated by radio telemetry link, identifies which call point was activated and alerts AWE Fire Service by landline. Activation sounds evacuation alarm, supported by flashing lights.</p>	<p>Grounds outside various buildings grouped in 11 zones (details contained in Volumes 2 & 3)</p>	<p>Zoned Electronic Fire Alarm</p>
<p>Manual activation of break-glass call points, sited at each emergency exit, sounds an audible evacuation alarm. No automated alert to Fire Service.</p>	<p>[REDACTED]</p>	<p>Local Electronic Fire Alarm</p>
<p>Hand cranked bells at emergency exits sound audible alarm only whilst being manually operated.</p>	<p>[REDACTED]</p>	<p>Manual Fire Alarm</p>
<p>Hand bells on posts on the grounds.</p>	<p>Burning Ground</p>	

Annex A - XTF Alarm Summary

Type	Comment
Intruder Detection Systems	Intruder Detection Systems (IDS). Activation of the alarm alerts the MDP of an unauthorised entry attempt.
Fault Condition Alarms	Local refrigerated flammable materials store plant condition alarms – amber warning lights external to buildings.
Process Condition Alarms	Plant condition alarm connected to a central alarm panel (location in bold). Activation of the alarm alerts the AWE Site Control Safety Shift Manager and activates a local alarm. Central alarm panel provides detailed information regarding nature of alarm.
Oxygen Depletion Alarms	Local humidity conditions outside specification for safety of operations indicated by flashing warning light. Local humidity conditions outside specification for operational safety and/or quality indicated by audible alarm.
Oxygen Depletion Alarms	Local automated oxygen depletion alarm with warning sounder and lights.

Annex A - XTF Alarm Summary

- Controlled copy Distribution List for this FERP: EDMS1/80155681/A/XBU/FM0805
- Facility Emergency Response Risk Assessment: EDMS1/8015568B/A/XBU/FM0805
- CSI 402 First Aid Assessment: EDMS1/80110D19/B/XBU/FM0707
- XTF Emergency Response Appointments List: EDMS1/80155684/A/XBU/FM0805
- XTF Facility Safety Case and Environmental Addendum
- XTF Facility Instruction 01/01: Access Control
- XTF Facility Instruction 01/02: XTF WCC Procedures
- XTF Facility Instruction 02/01: Lone Working in XTG
- XTF Facility Instruction 02/02: Silent Hours Working
- Contingency Plans for Buildings [REDACTED]: XTF/MQCR/A/OI/0034/99
- AWE(A) Category 3,4,5 Facility Emergency Response Plans: AWE36/SRG/01/MJF/007
- Process for Training and Accrediting Facility Emergency Controllers at AWE(A) and Zone Controllers at AWE(B): D102/SRG/07/PC/B/032
- Terms of Reference for Facility Emergency Controllers: D102/SRG/06/PC/A/011
- Management of Emergencies on Construction Sites at AWE: D102/SRG/05/PJK/A/019
- Standards for Construction and Use of Emergency Evacuation Assembly Buildings: D102/SRG/05/PJK/A/021
- Standards for Construction and Use of Emergency Control Points: D102/SRG/05/PJK/A/022
- Site Roll Call Requirements: D102/SRG/04/PC/B/028
- Procedures for Dealing with Chemical, Biological or Radiological Security Incidents at AWE: D102/SRG/06/KS/A/060
- AWE(A) Emergency Response Requirements Training Matrix and Course Contents: AWE/DWE36/00/CCH/006
- Emergency Response Exercises Procedure Document: DWE07/00/W4/232
- Guidance for Response to Security Incidents at AWE: D102/SRG/08/PC/B/017
- Flood Recovery – Building Services, Maintenance Authority Guidance Note: IMDG/A/GN/AM/0004
- CSI 405: Health Assessment
- CSI 603: AE Assessment and Formal Notification to Regulatory Authorities
- CSI 724: Work at Height
- CSI 1001: Emergency Arrangements
- CSI 1104: Management of Asbestos
- CSI 1108: Management of Facilities Hazardous Materials Inventories
- CSI 1401: Explosives Safety
- CSI 1507: Assurance Events Reporting Process
- CSI 1801: Arrangements for the Control of Major Accident Hazards
- CSP 712: Lone and Silent Hours Working
- CSP 720: Working with Cryogens
- CSP 727: Laser Safety Code
- CSP 740: Fire Safety Code Emergency Response
- CSP 3 Volume 2 (Appendix B): Electrical Safety Code (Treatment for Electric Shock)
- CSP 3 Volume 4: Mechanical Safety Code

Annex B - Related Documents