Pearson BTEC Level 3 Diploma in Emergency Fire and Rescue Services Operations in the Community

Specification

BTEC Specialist qualification

First teaching March 2011

Issue 3

Edexcel, BTEC and LCCI qualifications

Edexcel, BTEC and LCCI qualifications are awarded by Pearson, the UK's largest awarding body offering academic and vocational qualifications that are globally recognised and benchmarked. For further information, please visit our qualifications website at qualifications.pearson.com. Alternatively, you can get in touch with us using the details on our contact us page at qualifications.pearson.com/contactus

About Pearson

Pearson is the world's leading learning company, with 35,000 employees in more than 70 countries working to help people of all ages to make measurable progress in their lives through learning. We put the learner at the centre of everything we do, because wherever learning flourishes, so do people. Find out more about how we can help you and your learners at qualifications.pearson.com

This specification is Issue 3. Key changes are listed in the summary table on the next page. We will inform centres of any changes to this issue. The latest issue can be found on the Pearson website: qualifications.pearson.com

This qualification was previously known as:

Edexcel BTEC Level 3 Diploma in Emergency Fire and Rescue Services Operations in the Community (QCF)

The QN remains the same.

Summary of Pearson BTEC Level 3 Diploma in Emergency Fire and Rescue Services Operations in the Community Issue 3 changes

Summary of changes made between previous issue 2 and this current Issue 3	Page Number
All references to QCF have been removed throughout the specification with the exception of documents from other organisations eg Assessment Guidance in an Annexe	Throughout
Definition of TQT added	1
Definition of sizes of qualifications aligned to TQT	1
TQT value added	4
QCF references removed from unit titles and unit levels in all units	14-67

Earlier issue(s) show(s) previous changes.

If you need further information on these changes or what they mean, contact us via our website at: qualifications.pearson.com/en/support/contact-us.html

BTEC Specialist qualification titles covered by this specification

Pearson BTEC Level 3 Diploma in Emergency Fire and Rescue Services Operations in the Community

Qualifications eligible and funded for post-16-year-olds can be found on the funding Hub. The Skills Funding Agency also publishes a funding catalogue that lists the qualifications available for 19+ funding. The Qualification Number (QN) should be used by centres when they wish to seek public funding for their learners.

The qualification and unit reference numbers will appear on learners' final certification documentation.

The Qualification Number for the qualification in this publication is:

Pearson BTEC Level 3 Diploma in Emergency Fire and Rescue Services Operations in the Community   600/0698/5

This qualification title will appear on learners' certificates. Learners need to be made aware of this when they are recruited by the centre and registered with Pearson.

This qualification is accredited by Ofqual as being Stand Alone and as part of a Apprenticeship.

Welcome to the Pearson BTEC Level 3 Diploma in Emergency and Fire Rescue Services Operations in the Community

This qualification is intended to provide new recruit fire fighters with the knowledge they need to work in the fire and rescue services.

This qualification is also the technical certificate for the Level 3 Apprenticeship in Emergency Fire Services Operations in the Community.

Straightforward to implement, teach and assess

Implementing BTECs could not be easier. They are designed to fit easily into your curriculum and can be studied independently or alongside existing qualifications, to suit the interests and aspirations of learners. The clarity of assessment makes grading learner attainment simpler.

Engaging for everyone

Learners of all abilities flourish when they can apply their own knowledge, skills and enthusiasm to a subject. BTEC qualifications make explicit the link between theoretical learning and the world of work by giving learners the opportunity to apply their research, skills and knowledge to work-related contexts and case studies. These applied and practical BTEC approaches give all learners the impetus they need to achieve and the skills they require for workplace or education progression.

Recognition

BTECs are understood and recognised by a large number of organisations in a wide range of sectors. BTEC qualifications are developed with key industry representatives and Sector Skills Councils (SSC) to ensure that they meet employer and learner needs — **in this case the Skills for Justice SSC**. Many industry and professional bodies offer successful BTEC learners exemptions for their own accredited qualifications.

All you need to get started

To help you off to a flying start, we've developed an enhanced specification that gives you all the information you need to start teaching BTEC. This includes:

- a framework of equivalencies, so you can see how this qualification compares with other Pearson vocational qualifications

- information on rules of combination, structure and quality assurance, so you can deliver the qualification with confidence

- explanations of the content's relationship with the learning outcomes

- guidance on assessment, and what the learner must produce to achieve the unit.

Don't forget that we're always here to offer curriculum and qualification updates, local training and network opportunities, advice, guidance and support.

Contents

What are BTEC Level 3 Specialist qualifications?

BTEC Specialist qualifications are work-related qualifications available from Entry to Level 3 in a range of sectors. They give learners the knowledge, understanding and skills they need to prepare for employment in a specific occupational area. The qualifications also provide career development opportunities for those already in work. The qualifications may be offered as full-time or part-time courses in schools or colleges. Training centres and employers may also offer these qualifications.

Sizes of Specialist qualifications

For all regulated qualifications, we specify a total number of hours that learners are expected to undertake in order to complete and show achievement for the qualification – this is the Total Qualification Time (TQT). The TQT value indicates the size of a qualification.

Within the TQT, we identify the number of Guided Learning Hours (GLH) that a centre delivering the qualification needs to provide. Guided learning means activities that directly or immediately involve tutors and assessors in teaching, supervising, and invigilating learners, for example lectures, tutorials, online instruction and supervised study.

As well as guided learning, there may be other required learning that is directed by tutors or assessors. This includes, for example, private study, preparation for assessment and undertaking assessment when not under supervision, such as preparatory reading, revision and independent research.

As well as TQT and GLH, qualifications can also have a credit value – equal to one tenth of TQT, rounded to the nearest whole number.

TQT and credit values are assigned after consultation with users of the qualifications.

BTEC Specialist qualifications are available in the following sizes:

- Award – a qualification with a TQT value of 120 or less (equivalent to a range of 1–12 credits)
- Certificate – a qualification with a TQT value in the range of 121–369 (equivalent to a range of 13–36 credits)
- Diploma – a qualification with a TQT value of 370 or more (equivalent to 37 credits and above).

Key features of the Pearson BTEC Level 3 Diploma in Emergency Fire and Rescue Services Operations in the Community

The Pearson BTEC Level 3 Diploma in Emergency Fire and Rescue Services Operations in the Community has been developed to give learners the opportunity to:

- engage in learning that is relevant to them and which will provide opportunities to develop a range of skills and techniques, personal skills and attributes essential for successful performance in working life

- achieve a nationally recognised, Level 3 vocationally-related qualification

- progress to employment in a particular vocational sector

- progress to related general and/or vocational qualifications.

National Occupational Standards

Where relevant, Pearson BTEC Level 3 specialist qualifications are designed to provide some of the underpinning knowledge and understanding for the National Occupational Standards (NOS), as well as developing practical skills in preparation for work and possible achievement of NVQs in due course. NOS form the basis of National Vocational Qualifications (NVQs). Pearson BTEC Level 3 qualifications do not purport to deliver occupational competence in the sector, which should be demonstrated in a work context.

Each unit in the specification identifies links to elements of the NOS in *Annexe B*.

The Pearson BTEC Level 3 Diploma in Emergency Fire and Rescue Services Operations in the Community relates to the following NOS.

- FF2 Take responsibility for effective performance in fire and rescue

- FF3 Save and preserve endangered life

- FF4 Resolve fire and rescue operational incidents

- FF5 Protect the environment from the effect of hazardous materials

- FF6 Support the effective ness of operational response

Rules of combination

The rules of combination specify the credits that need to be achieved, through the completion of particular units, for the qualification to be awarded.

Rules of combination for Pearson BTEC Level 3 qualifications

When combining units for the Pearson BTEC Level 3 Diploma in Emergency Fire and Rescue Services Operations in the Community, it is the centre's responsibility to ensure that the following rules of combination are adhered to.

1   Total Qualification Time: 390
2   Credit value: a minimum of 39 credits
3   Guided learning hours: 180

Learners need to complete all five mandatory units.

Pearson BTEC Level 3 Diploma in Emergency Fire and Rescue Services Operations in the Community

The Pearson BTEC Level 3 Diploma in Emergency Fire and Rescue Services Operations in the Community is a 39-credit and 180-guided-learning-hour (GLH) qualification that consists of five mandatory units.

The Total Qualification Time (TQT) for this qualification is 390.

Pearson BTEC Level 3 Diploma in Emergency Fire and Rescue Services Operations in the Community			
Unit	Mandatory units	Credit	Level
1	Personal Responsibilities for Performance in the Fire and Rescue Service	8	3
2	Practices for Resolving Fire and Special Service Incidents	11	3
3	Fire Fighter Role at Operational Incidents for Search, Rescue and Casualty Care	7	3
4	Fire Fighter Responsibilities at Hazardous Material Incidents	7	3
5	Resources to Support Fire Fighters for Operational Response at Incidents	6	3

Assessment

All units within this qualification are internally assessed. The qualification is criterion referenced, based on the achievement of all the specified learning outcomes.

To achieve a 'pass' a learner must have successfully passed **all** the assessment criteria.

Guidance

The purpose of assessment is to ensure that effective learning has taken place to give learners the opportunity to:

- meet the standard determined by the assessment criteria and

- achieve the learning outcomes.

All the assignments created by centres should be reliable and fit for purpose, and should be built on the unit assessment criteria. Assessment tasks and activities should enable learners to produce valid, sufficient and reliable evidence that relates directly to the specified criteria. Centres should enable learners to produce evidence in a variety of different forms, including performance observation, presentations and posters, along with projects, or time-constrained assessments.

Centres are encouraged to emphasise the practical application of the assessment criteria, providing a realistic scenario for learners to adopt, and making maximum use of practical activities. The creation of assignments that are fit for purpose is vital to achievement and their importance cannot be over-emphasised.

The assessment criteria must be clearly indicated in the assignments briefs. This gives learners focus and helps with internal verification and standardisation processes. It will also help to ensure that learner feedback is specific to the assessment criteria.

When designing assignments briefs, centres are encouraged to identify common topics and themes. A central feature of vocational assessment is that it allows for assessment to be:

- current, ie to reflect the most recent developments and issues

- local, ie to reflect the employment context of the delivering centre

- flexible to reflect learner needs, ie at a time and in a way that matches the learner's requirements so that they can demonstrate achievement.

Qualification grade

Learners who achieve the minimum eligible credit value specified by the rule of combination will achieve the qualification at pass grade.

Quality assurance of centres

Pearson BTEC Level 3 specialist qualifications provide a flexible structure for learners. For the purposes of quality assurance, all individual qualifications and units are considered as a whole.

Centres delivering Pearson BTEC Level 3 specialist qualifications must be committed to ensuring the quality of the units and qualifications they deliver, through effective standardisation of assessors and verification of assessor decisions. Centre quality assurance and assessment is monitored and guaranteed by Pearson.

The Pearson quality assurance processes will involve:

- centre approval for those centres not already recognised as a centre for BTEC qualifications
- approval for Pearson BTEC Level 3 qualifications and units
- **compulsory** Pearson-provided training and standardisation for internal verifiers and assessors leading to the accreditation of lead internal verifiers via the OSCA system
- quality review of the centre verification practice
- centre risk assessment by Pearson of overarching processes and quality standards
- remedial training and/or assessment sampling for centres identified through standardisation or risk assessment activities as having inadequate quality, assessment or internal verification processes.

Approval

Centres are required to declare their commitment to ensuring the quality of the programme of learning and providing appropriate assessment opportunities for learners that lead to valid and accurate assessment outcomes. In addition, centres will commit to undertaking defined training and online standardisation activities.

Centres already holding BTEC approval are able to gain qualification approval online. New centres must complete a centre approval application.

Quality Assurance Guidance

Details of quality assurance for Pearson BTEC Level 3 qualifications are set out in centre guidance which is published on our website (qualifications.pearson.com).

Programme design and delivery

Mode of delivery

Pearson does not normally define the mode of delivery for Pearson BTEC Entry to Level 3 qualifications. Centres are free to offer the qualifications using any mode of delivery (such as full-time, part-time, evening only, distance learning) that meets their learners' needs. Whichever mode of delivery is used, centres must ensure that learners have appropriate access to the resources identified in the specification and to the subject specialists delivering the units. This is particularly important for learners studying for the qualification through open or distance learning.

Learners studying for the qualification on a part-time basis bring with them a wealth of experience that should be utilised to maximum effect by tutors and assessors. The use of assessment evidence drawn from learners' work environments should be encouraged. Those planning the programme should aim to enhance the vocational nature of the qualification by:

• liaising with employers to ensure a course relevant to learners' specific needs

• accessing and using non-confidential data and documents from learners' workplaces

• including sponsoring employers in the delivery of the programme and, where appropriate, in the assessment

• linking with company-based/workplace training programmes

• making full use of the variety of experience of work and life that learners bring to the programme.

Resources

Pearson BTEC Level 3 qualifications are designed to give learners an understanding of the skills needed for specific vocational sectors. Physical resources need to support the delivery of the programme and the assessment of the learning outcomes, and should therefore normally be of industry standard. Staff delivering programmes and conducting the assessments should be familiar with current practice and standards in the sector concerned. Centres will need to meet any specific resource requirements to gain approval from Pearson.

Where specific resources are required these have been indicated in individual units in the *Essential resources* sections.

Delivery approach

It is important that centres develop an approach to teaching and learning that supports the vocational nature of Pearson BTEC Level 3 qualifications and the mode of delivery. Specifications give a balance of practical skill development and knowledge requirements, some of which can be theoretical in nature. Tutors and assessors need to ensure that appropriate links are made between theory and practical application and that the knowledge base is applied to the sector. This requires the development of relevant and up-to-date teaching materials that allow learners to apply their learning to actual events and activity within the sector. Maximum use should be made of learners' experience.

Functional skills

Pearson Level 3 BTEC Specialist qualifications give learners opportunities to develop and apply functional skills. Functional skills are, however, not required to be achieved as part of the BTEC Specialist qualification(s) rules of combination. Functional Skills are offered as stand-alone qualifications.

Access and recruitment

Pearson's policy regarding access to its qualifications is that:

- they should be available to everyone who is capable of reaching the required standards

- they should be free from any barriers that restrict access and progression

- there should be equal opportunities for all wishing to access the qualifications.

Centres are required to recruit learners to BTEC qualifications with integrity. This will include ensuring that applicants have appropriate information and advice about the qualifications and that the qualification will meet their needs. Centres should take appropriate steps to assess each applicant's potential and make a professional judgement about their ability to successfully complete the programme of study and achieve the qualification. This assessment will need to take account of the support available to the learner within the centre during their programme of study and any specific support that might be necessary to allow the learner to access the assessment for the qualification. Centres should consult Pearson's policy on learners with particular requirements.

Centres will need to review the entry profile of qualifications and/or experience held by applicants, considering whether this profile shows an ability to progress to a higher level qualification.

Restrictions on learner entry

The Pearson BTEC Level 3 Diploma in Emergency Fire and Rescue Services Operations in the Community is for learners aged 16 and above.

Access arrangements and special considerations

Pearson's policy on access arrangements and special considerations for BTEC and Edexcel NVQ qualifications aims to enhance access to the qualifications for learners with disabilities and other difficulties (as defined by the 1995 Disability Discrimination Act and the amendments to the Act) without compromising the assessment of skills, knowledge, understanding or competence.

Further details are given in the policy document *Access Arrangements and Special Considerations for BTEC and Edexcel NVQ Qualifications*, which can be found on the Pearson website (qualifications.pearson.com). This policy replaces the previous Pearson policy (Assessment of Vocationally Related Qualifications: Regulations and Guidance Relating to Learners with Special Requirements, 2002) concerning learners with particular requirements.

Recognition of Prior Learning

Recognition of Prior Learning (RPL) is a method of assessment that considers whether a learner can demonstrate that they can meet the assessment requirements for a unit through knowledge, understanding
or skills they already possess and so do not need to develop through a course of learning.

Pearson encourages centres to recognise learners' previous achievements and experiences whether at work, home and at leisure, as well as in the classroom. RPL provides a route for the recognition of the achievements resulting from continuous learning.

RPL enables recognition of achievement from a range of activities using any valid assessment methodology. Provided that the assessment requirements of a given unit or qualification have been met, the use of RPL is acceptable for accrediting a unit, units or a whole qualification. Evidence of learning must be sufficient, reliable and valid.

Unit format

Each unit has the following sections.

Unit title

This is the formal title of the unit that will appear on the learner's certificate.

Unit reference number

Each unit is assigned a unit reference number that appears with the unit title on the Register of Regulated Qualifications.

Level

All units and qualifications have a level assigned to them. The level assigned is informed by the level descriptors defined by Ofqual, the qualifications regulator.

Credit value

All units have a credit value. The minimum credit value that may be determined for a unit is one, and credits can only be awarded in whole numbers. Learners will be awarded credits for the successful completion of whole units.

Guided learning hours

Guided Learning Hours (GLH) is the number of hours that a centre delivering the qualification needs to provide. Guided learning means activities that directly or immediately involve tutors and assessors in teaching, supervising, and invigilating learners, for example lectures, tutorials, online instruction and supervised study.

Unit aim and purpose

The aim provides a clear summary of the purpose of the unit and is a succinct statement that summarises the learning outcomes of the unit.

Unit introduction

The unit introduction gives the reader an appreciation of the unit in the vocational setting of the qualification, as well as highlighting the focus of the unit. It gives the reader a snapshot of the unit and the key knowledge, skills and understanding gained while studying the unit. The unit introduction also highlights any links to the appropriate vocational sector by describing how the unit relates to that sector.

Learning outcomes

The learning outcomes of a unit set out what a learner is expected to know, understand or be able to do as the result of a process of learning.

Assessment criteria

The assessment criteria of a unit specify the standard a learner is expected to meet to demonstrate that a learning outcome, or set of learning outcomes, has been achieved. The learning outcomes and assessment criteria clearly articulate the learning achievement for which the credit will be awarded at the level assigned to the unit.

Unit content

The unit content identifies the breadth of knowledge, skills and understanding needed to design and deliver a programme of learning to achieve each of the learning outcomes. This is informed by the underpinning knowledge and understanding requirements of the related National Occupational Standards (NOS), where relevant. The content provides the range of subject material for the programme of learning and specifies the skills, knowledge and understanding required for achievement of the unit.

Each learning outcome is stated in full and then the key phrases or concepts related to that learning outcome are listed in italics followed by the subsequent range of related topics.

Relationship between content and assessment criteria

The learner should have the opportunity to cover all the unit content.

It is not a requirement of the unit specification that all the content is assessed. However, the indicative content will need to be covered in a programme of learning in order for learners to be able to meet the standard determined in the assessment criteria.

Content structure and terminology

The information below shows how the unit content is structured and gives the terminology used to explain the different components within the content.

- Learning outcome: this is shown in bold at the beginning of each section of content.

- Italicised sub-heading: it contains a key phrase or concept. This is content which must be covered in the delivery of the unit. Colons mark the end of an italicised sub-heading.

- Elements of content: the elements are in plain text and amplify the sub-heading. The elements must be covered in the delivery of the unit. Semi-colons mark the end of an element.

- Brackets contain amplification of content which must be covered in the delivery of the unit.

- 'eg' is a list of examples, used for indicative amplification of an element (that is, the content specified in this amplification could be covered or could be replaced by other, similar material).

Essential guidance for tutors

This section gives tutors additional guidance and amplification to aid understanding and a consistent level of delivery and assessment. It is divided into the following sections.

- *Delivery* – explains the content's relationship to the learning outcomes and offers guidance about possible approaches to delivery. This section is based on the more usual delivery modes but is not intended to rule out alternative approaches.

- *Assessment* – gives amplification about the nature and type of evidence that learners need to produce in order to achieve the unit. This section should be read in conjunction with the assessment criteria.

- *Essential resources* – identifies any specialist resources needed to allow learners to generate the evidence required for each unit. The centre will be asked to ensure that any requirements are in place when it seeks approval from Pearson to offer the qualification.

- *Indicative resource materials* – gives a list of learner resource material that benchmarks the level of study.

Units

Unit 1: Personal Responsibilities for Performance in the Fire and Rescue Service

Unit reference number: F/502/9520

Level: 3

Credit value: 8

Guided learning hours: 30

Unit aim

The aim of this unit is to provide learners with the understanding of the responsibilities of fire and rescue personnel, how they use communication skills and apply health and safety at incidents. Learners will also learn how to manage their own personal development within the fire and rescue service.

Unit introduction

In this unit learners will explore the responsibilities of fire fighters, including using communication skills appropriately and applying health and safety controls at incidents.

Learners will also explore how fire fighters take responsibility for their own performance including personal health and fitness, working well with other people and developing their own skills in the job role. This unit will give learners knowledge and understanding of personal development and the associated skills to support them to meet agreed changes in practice. This includes identifying and planning how to address their own development needs to maintain their required level of competence.

Learning outcomes and assessment criteria

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit.

On completion of this unit a learner should:

Learning outcomes	Assessment criteria	
1 Understand responsibilities of fire and rescue service personnel	1.1	Explain how legislation impacts on organisational policies of the fire and rescue service
	1.2	Explain how organisational responsibilities are devolved through role responsibilities of fire and rescue personnel
2 Understand the application of communication skills in fire and rescue service operations	2.1	Explain appropriate communication methods when working with diverse audiences
	2.2	Explain the importance of positive communication as a way of reducing the likelihood of conflict
	2.3	Explain how managing public expectations can reduce the likelihood of conflict
	2.4	Explain the importance of viewing a situation from the public's perspective
	2.5	Identify communication strategies that can be used to solve problems
3 Understand the application of health and safety in the fire and rescue service	3.1	Explain how to identify practices that minimise hazards in the workplace
	3.2	Explain how to identify risks arising from hazards in the workplace
	3.3	Explain how to apply control measures for hazards and risks in the workplace
4 Understand how to manage personal development in the fire and rescue service	4.1	Summarise personal requirements and skills required by fire and rescue service personnel
	4.2	Evaluate areas of personal strengths and weaknesses in personal work
	4.3	Develop strategies to develop self

Unit content

1 **Understand responsibilities of fire and rescue service personnel**

Organisational practice and policies: legislation applicable to the fire service; policies including occupational health, systems of work and working practices, procedures for performance, review and development; data protection, equality and diversity, organisational objectives, goals, values

Role responsibilities: contract requirements, authority levels of self and others eg community groups, other emergency services, external agencies, employee and employer representative bodies; mitigating potential conflict and resistance, identification of the wider implications of change within the community; challenging unacceptable behaviour; conflict management eg avoidance of threat, harm or damage to people, property, the environment, the organisation

2 **Understand the application of communication skills in fire and rescue service operations**

Communication: ability to communicate with diverse groups of customers; methods of communication including active listening, body language, receiving and responding to feedback; different groups of customers (different ages, different cultures, individuals, families); customers with particular needs (English not first language, visual or hearing difficulties); techniques to ascertain customer needs (questioning, listening, clarifying); the need to provide clear and accurate information; expected and accepted lines of communication; relevant legislation and regulations relating to communication; audience diversity including age, gender, ethnicity, religious belief, sexuality, political beliefs; personal behaviour including calm, polite manner, tone of voice, pitch, active listening, body language, appropriateness to situation; dealing with differing customer behaviour, personalities; how personal behaviour can affect the customer service experience

Conflict management: importance of positive communication in avoiding conflict including the importance of constructive communication, the need to communicate in a way that is clear, professional, polite and fair; managing customer expectations to reduce the risk of conflict including how difficulties can arise if customers have unrealistic expectations, how providing information can help manage customer expectations; importance of viewing the situation from the customer's perspective including the importance of empathy (preventing conflict, helping to defuse conflict, understanding a conflict situation better); ways of showing empathy; strategies for solving problems (building rapport, finding common ground, agreeing a way forward), negotiation strategies that can be used to help solve problems (stating expectations, giving reasons, offering alternatives, applying pressure, offering incentives, compromising), concept and benefit of win-win approach

3 **Understand the application of health and safety in the fire and rescue service**

Health and safety: how to recognise hazards and risk eg risk assessment; how to apply control measures; external legislation and regulations; how legislation and regulations are applied through internal policies and practices; types of hazards and risk eg stress and fatigue, the environment, factors affecting the community, equipment and other resources

4 **Understand how to manage personal development in the fire and rescue service**

Personal skills requirements for fire and rescue service personnel: manage and carry out personal work duties; personal administration, working as an effective team member, acting assertively, behaving ethically, focussing on results, striving for excellence, taking decisions, standards of behaviour eg relating to others, planning and problem solving; job description requirements

Personal development: identification of role requirements; self-assessment against role requirements; managing personal and professional learning and development eg managing health and physical fitness, agreeing and setting personal objectives continuous, improvement of performance, personal development plans

Essential guidance for tutors

Delivery

It would be beneficial for learners to have input from the FRS, especially in instances where the unit is not delivered as part of a fire fighter development programme. Evidence could be generated from visits to FRS establishments. Appropriate work placements could also be used to generate evidence.

Learners should have the opportunity to view footage from documentaries and FRS-accredited online broadcasts showing the day-to-day life of fire fighters. This material will provide a focus for group discussion.

It is recommended that delivery of this unit is as practical as possible to engage and motivate learners. It is suggested that a theoretical input is followed by examples of the theory in practice. This could be achieved through observation and review of realistic scenarios such as dealing with distressed people and addressing workplace hazards and risks. Learners should be guided as to what to look for when observing and reviewing the scenario so they understand the processes involved.

Visits to, and speakers from, a range of people/groups involved in supporting fire fighter responsibilities and performance are recommended, for example:

Visits to

FRS Training

FRS stations

Speakers from

FRS Organisational Policy Group

FRS Fire Fighter Development

FRS Human Resources/People Management

FRS Health and Safety

FRS Operations

Contact information for these organisations can be found on The Chief Fire Officers Association website (www.cfoa.org.uk/frs).

Outline learning plan

The outline learning plan has been included in this unit as guidance and can be used in conjunction with the programme of suggested assignments.

The outline learning plan demonstrates one way in planning the delivery and assessment of this unit.

Topic and suggested assignments/activities and/assessment
Introduction to unit and programme of assignments
Teaching activity – legislation and policy development
Visiting speakers from a FRS Organisational Policy Group
Case study analysis on the impact of policy on the fire fighter's role
Assignment 1: Responsibilities of FRS Personnel
Review of Assignment 1 including tutor feedback and re-working
Teaching activity – communicating with your community
Visits from FRS operations personnel
Teaching activity – managing conflict through communication
Case study analysis of the challenges to communication when dealing with diverse distressed people
Assignment 2: Communication Skills in FRS Operations
Review of Assignment 2 including tutor feedback and re-working
Teaching activity – health and safety at work and the FRS
Visits speaker from FRS health and safety personnel
Learner research identifying the different workplace environments the FRS encounter and their associated responsibilities
Assignment 3: Health and Safety and the FRS
Review of Assignment 3 including tutor feedback and re-working
Teaching activity – FRS personal requirements and skills
Visits from FRS human resources/people management personnel
Teaching activity – evaluating personal strengths and weaknesses
Learner research to identify self-development strategies
Assignment 4: Manage Personal Development in the FRS
Review of Assignment 4 including tutor feedback and re-working
Review of unit and programme of assignments

Assessment

It is recommended that assessment criteria are integrated to create holistic assignments. Observation and identification of information against specified objectives in assignments would provide evidence of learner understanding and of them meeting the assessment criteria.

A number of activities can be used to meet the assessment criteria of this unit. The FRS may be able to provide practical information and possible case studies for learners to analyse.

It would be useful for learners to observe the FRS carrying out activities. Evidence could be in the form of written reports or presentations with effective evaluations and summaries. Evidence could also be gained from witness testimony.

Learners could devise a questionnaire and feedback forms, which could be used as part of investigatory interviews, presentations and discussions with members of the FRS and other organisations.

Programme of suggested assignments

The table below shows a programme of suggested assignments that cover the criteria in the assessment grid. This is for guidance only and it is recommended that centres either write their own assignments or adapt Pearson assignments to meet local needs and resources.

Criteria covered	Assignment title	Scenario	Assessment method
1.1 – 1.2	Responsibilities of FRS Personnel	On behalf of the FRS, you have been asked to deliver a presentation at a careers exhibition on the general responsibilities of FRS personnel at all core levels.	Presentation
2.1 – 2.5	Communication Skills in FRS Operations	As part of a multi-emergency service seminar, you have been asked to give an overview of how the FRS has improved communications with the diverse range of people and organisations involved at incidents	Presentation
3.1 – 3.3	Health and Safety and the FRS	To assist employees within the FRS you have been asked to develop two 'high impact' posters highlighting (1) how to deal with hazards and risks and (2) the benefits of good practice and control measures	Posters
4.1 – 4.3	Manage Personal Development in the FRS	You have been asked to produce an article for the in-house FRS magazine on 'How to manage your own personal development'	Written report with diagrams

Essential resources

Learners should have access to library facilities for research purposes and to the internet to access governmental and inter-governmental websites. Learners must be made aware that fire and rescue services and other authorities have individual websites for each locality/region.

Access to footage from documentaries and accredited online broadcasts showing FRS people in their daily working lives can provide good examples for learners.

Access to the different types of FRS resources referred to within this unit is essential to support learner understanding.

Indicative resource materials

Manuals and guides

The following manuals and guides have been issued to support the FRS. A local adaptation of what is described within them is sometimes covered by service-specific documentation, which is a source of information that should be utilised to support learner development. This type of documentation is in place to meet local needs and resources.

Department for Communities and Local Government – *Generic Risk Assessments 1.1 - Emergency Response and Arrival at the Scene* (The Stationery Office, 2009) ISBN 9780117540163

HM Fire Service Inspectorate – *Dynamic Management of Risk – Fire Service Guides* (The Stationery Office, 1998) ISBN 9780113412211

HM Fire Service Inspectorate – *Dynamic Risk Assessment Flowchart – Fire Service Guides* (The Stationery Office, 2000) ISBN 9780113412518

HM Fire Service Inspectorate – *Volume 1: A Guide for Senior Officers: Fire Service Guides – Generic Risk Assessment Series* (The Stationery Office, 1998) ISBN 9780113412181

HM Fire Service Inspectorate – *Volume 2: A Guide for Managers: Fire Service Guides – Generic Risk Assessment Series* (The Stationery Office, 1998) ISBN 9780113412198

HM Fire Service Inspectorate – *Volume 2: A Guide for Managers: Module 18: Health and Safety Audit – Fire Service Guides – Generic Risk Assessment Series* (The Stationery Office, 1998) ISBN 9780113412488

HM Fire Service Inspectorate – *Volume 3: A Guide to Operational Risk Assessment: Fire Service Guides – Generic Risk Assessment Series* (The Stationery Office, 1998) ISBN 9780113412204

In relation to personal development, each FRS will have documentation that explains their practice. Further information can be found on the websites that follow, where workplace learning interventions, including HRD practitioners' strategies, training and development activities, and e-learning programs etc are explained.

Journals and magazines

Fire Magazine

Fire Times

Industrial Fire Journal

International Firefighter Magazine

Local FRS 'in-house' magazines

Websites

Each FRS has its own website.

The Chartered Institute of Personnel and Development	www.cipd.co.uk/default.cipd
Chief Fire Officers' Association	www.cfoa.org.uk
Communities and Local Government	www.communities.gov.uk/fire/
Fire & Rescue Services Act 2004	www.legislation.gov.uk
Fire Service College	www.fireservicecollege.ac.uk
Health & Safety at Work Act 1974	www.hse.gov.uk/legislation/hswa.htm
Institute of Fire Engineers	www.ife.org.uk/edutrain/
Skills for Justice – Sector Skills Council	www.skillsforjustice.com/strand.asp?PageID=649
The Regulatory Reform (Fire Safety) Order 2005	www.legislation.gov.uk
UK Fire Service Resources	www.fireservice.co.uk
Welsh Assembly Government	wales.gov.uk/topics/housingandcommunity/safety/fire/?lang=en

Unit 2: Practices for Resolving Fire and Special Service Incidents

Unit reference number: L/502/9522

Level: 3

Credit value: 11

Guided learning hours: 60

Unit aim

This unit examines the underpinning understanding required to resolve fire and special service incidents including operational systems of work, working practices, use of risk assessment, how to respond to fire and special service incidents, use of appropriate operational equipment and working with others at incidents.

Unit introduction

The principles of resolving fire incidents and of resolving special service incidents are considered to be similar and this unit addresses them as one.

This unit covers the underpinning knowledge required to resolve a range of operational incidents in a fire and rescue context. It examines operational systems of work and working practices that fire fighters follow when attending incidents.

Learners will examine the use of risk assessment and control measures, as well as how fire fighters respond directly to fire and special service incidents. Learners will explore the range of personal protective equipment available to fire fighters and how to operate appropriate equipment safely to access, control and/or extinguish fires and to minimise damage to property and the environment from the effects of fire and its extinguishment.

The unit explores how to work with others to respond to emergencies involving all types of fire, resolved by single and multiple crews. Learners will also explore how communication skills are used at fire and special service incidents.

Resolving fire and special service incidents is covered in general terms in this unit and within the context specific detail of *Unit 3: Fire Fighter Role at Operational Incidents for Search, Rescue and Casualty Care* and *Unit 4: Fire Fighter Responsibilities at Hazardous Material Incidents*. It is also given attention in other units within this qualification.

Generic and specific risk assessment is covered within this unit and their application is reinforced and developed in Units 3 and 4.

Learning outcomes and assessment criteria

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit.

On completion of this unit a learner should:

Learning outcomes	Assessment criteria
1 Understand operational systems of work and working practices	1.1 Describe the purpose of operational systems of work
	1.2 Explain how working practices function within systems of work
	1.3 Explain the systems of work and working practices at operational incidents
2 Understand risk assessment and control measures for fire and special service incidents	2.1 Explain the use of generic risk assessment and control measures
	2.2 Explain the use of specific risk assessment and control measures
	2.3 Explain how to apply individual risk assessment and control measures
	2.4 Explain the relationship between generic, specific and individual risk assessment
3 Understand how to respond to fire and special service incidents	3.1 Describe the classification of fire
	3.2 Explain methods of extinction and applicable media used for classes of fire
	3.3 Explain the behaviour of fire
	3.4 Explain causes of special service incidents
4 Understand how to use operational and personal protective equipment for fire and special service incidents	4.1 Describe the capability and limitations of operational and personal protective equipment
	4.2 Explain how to use operational and personal protective equipment to meet fire and special service objectives

Learning outcomes	Assessment criteria
5 Understand how to work with others in fire and special service incidents	5.1 Explain the importance of the roles within incident command system, single service and multi agency responses
	5.2 Explain limits of authority of self and others to meet fire and special service objectives
	5.3 Describe incident ground communications to meet fire and special service objectives

Unit content

1 **Understand operational systems of work and working practices**

   Operational systems of work: for risk assessment; incident command; breathing apparatus (BA) control; safe systems of work eg working at height, working on or near water, working on permanent way, working on motorways

   Working practices: Standard Operating Procedures (SOPs); statutory requirements; memorandums of understanding; fire and rescue service technical guidance; site-specific information

2 **Understand risk assessment and control measures for fire and special service incidents**

   Generic risk assessment: incident types including transport, (modes of transport, centres such as stations, ports and harbours) fire, premises (industrial, commercial, residential, entertainment), machinery, water, (inland and/or off shore); control measures

   Specific risk assessment: against local risk; sources of risk assessment eg from other public services, from agencies, from private sector; control measures

   Individual risk assessment: eg dynamic, analytical, decision-making model; control measures

3 **Understand how to respond to fire and special service incidents**

   Fire incidents: classification of fire, fire behaviour including causes of fire, the fire triangle, methods of spread, fire development, fire phenomena eg flashover, backdraught; methods employed to gain access, effect entry and maintain egress; safe systems of work eg SOPs

   Methods and media for controlling and extinguishing fires: importance of limiting damage from operational incidents, importance of reducing harm to the environment, importance of preserving evidence including to establish the cause, fire behaviour and origin

   Special service incidents: eg lock outs, transport incidents, dangerous structures, salvage; methods employed to gain access, effect entry and maintain egress; safe systems of work eg SOPs

4 **Understand how to use operational and personal protective equipment for fire and special service incidents**

Types of equipment: including hose and hose fitting, hydrants and water supplies, pumps and primers, knots and lines, extinguishers, ladders, foam and foam making equipment, hydraulic and pneumatic equipment, lighting equipment

Personal protective equipments: including fire fighting kit, breathing apparatus, specialist equipment eg water rescue kit, working at heights, high volume pump kit, wild fire

Use of personal protective and operational equipment: how to select the appropriate personal protective and operational equipment; capabilities and limitations

5 **Understand how to work with others in fire and special service incidents**

Roles: responsibility within incident command system eg communication with and identification of relevant people; on and off site planning, limits of authority of self and others; importance of accurate record keeping and use of records eg recorded incident ground messages, control messages, risk assessment

Communication: lines of communication: who you talk to, incident ground communication system; methods of communication including radio, line signals, hand signals, words of command, safety signals, phonetic alphabet; confidentiality; briefs and debriefs; communicating with others eg police, ambulance, local authority, local authority fire service, emergency planning department, NHS, private sector, media, the public

Essential guidance for tutors

Delivery

Learners will require input from the FRS, especially in instances where the unit is not delivered as part of a fire fighter development programme. Evidence could be generated from visits to FRS establishments. Appropriate work placements could also be used to generate evidence.

Learners should have opportunities to review high profile fire and special service incidents involving media coverage, in particular incidents where the FRS has received praise and/or identified lessons to be learned from their actions. Footage from documentaries and FRS-accredited online broadcasts showing FRS people in their daily working lives will provide good material for group discussion.

It is recommended that delivery of this unit is as practical as possible to engage and motivate learners. It is suggested that a theoretical input is followed by examples of the theory in practice. This could be achieved through observing and reviewing an actual incident or a realistic scenario. For example, a useful approach could be to set up a scenario of a fire that needs to be extinguished and/or a minor collapsed structure that needs to be made safe. Learners should be guided as to what to look for when observing and reviewing the scenario so they are able to identify effective and not so effective performance. Learners may have had personal experiences of these incidents that could be distressing, and therefore sensitivity should be applied.

Learners who are engaged in a FRS fire fighter development programme operated by a local authority in England, Wales, Scotland, Northern Ireland, or the Defence Fire Risk Management Organisation, or private and specialist fire and rescue services may find that this can be integrated into Units 2, 3 and 4 in this qualification.

It is recommended that visits to, and from, a range of people/groups involved in fire and special service incidents are arranged, for example:

Visits to

FRS Training establishment

FRS station

Speakers from

FRS Operational Performance/Assurance Teams

FRS Training/Operations

Officers from relevant local and non-local authority organisations involved in supporting fire and special service responses eg airports, rail, ports, armed services, Ministry of Defence, county councils.

Contact information for these organisations can be found on The Chief Fire Officers Association website (www.cfoa.org.uk/frs).

Outline learning plan

The outline learning plan has been included in this unit as guidance and can be used in conjunction with the programme of suggested assignments.

The outline learning plan demonstrates one way in planning the delivery and assessment of this unit.

Topic and suggested assignments/activities and/assessment
Introduction to unit and programme of assignments
Teaching activity – how non-life-threatening fire and special service incidents are defined
Case study analysis – reviewing actual incidents and identifying their type
Teaching activity – relationship between systems of work and working practices
Visiting speakers from operational performance/assurance teams
Teaching activity – application of systems of work and working practices at fire and special service incidents
Case study analysis of a fire and a special service incident
Assignment 1: Systems of Work and Working Practices
Review of Assignment 1, including tutor feedback and re-working
Teaching activity – relationship between the different types of risk assessment and control measures
Visiting speakers from operational performance/assurance teams
Teaching activity – application of the different types of risk assessment and control measures
Visiting speakers from operational performance/assurance teams
Case study analysis of an incident scenario identifying the relevant risk assessment
Assignment 2: Risk Assessment and Control Measures
Review of Assignment 2, including tutor feedback and re-working
Teaching activity – fire and extinction
Learner research into the types of fire, their development, behaviour and extinction
Teaching activity – special service incidents and their causes
Learner research into the types of special service incidents, their causes and responses
Assignment 3: Responses to Fire and Special Service Incidents
Review of Assignment 3, including tutor feedback and re-working
Teaching activity – types of operational equipment and PPE, their limitations and capabilities
FRS trainer-led seminar on the location of operational equipment and PPE
Teaching activity – use of operational equipment and PPE
Learner research on the use of operational equipment and PPE

Assignment 4: Operational and Personal Protective Equipment (PPE)
Review of Assignment 4, including tutor feedback and re-working
Teaching activity – the public and other organisations
Visits from FRS operations personnel
Learner-led presentation identifying the importance, ways and means of working with others
Assignment 5: Working with Others
Review of Assignment 5, including tutor feedback and re-working
Review of unit and programme of assignments

Assessment

It is recommended that assessment criteria are integrated to create holistic assignments. Observation and identification of information against specified objectives in assignments would provide evidence of learner understanding and of them meeting the assessment criteria.

A number of activities can be used to meet the assessment criteria of this unit. The FRS and other authorities involved in fire and special service incidents may be able to provide practical information and possible case studies for learners to analyse.

It would be useful for learners to observe the FRS and other authorities involved in fire and special service incidents in real or simulated incidents. Evidence could be in the form of written reports or presentations with effective evaluations and summaries. Evidence could also be gained from witness testimony.

Learners could devise a questionnaire and feedback forms, which could be used as part of investigatory interviews, presentations and discussions with members of the FRS and other authorities.

Programme of suggested assignments

The table below shows a programme of suggested assignments that cover the criteria in the assessment grid. This is for guidance only and it is recommended that centres either write their own assignments or adapt Pearson assignments to meet local needs and resources.

Criteria covered	Assignment title	Scenario	Assessment method
1.1 – 1.3	Systems of Work and Working Practices	On behalf of the FRS, you have been asked to support learners who need to know how the FRS apply systems of work and working practices at fires and special service incidents	Presentation
2.1 – 2.4 3.4	Risk Assessment and Control Measures	As part of an internal review team you have been asked to review and make recommendations following an analysis of 'near miss' and accident investigation information against a range of risk assessments and control measures	Written report
3.1 – 3.3	Responses to Fire and Special Service Incidents	As part of a community safety initiative you have been asked to explain how incidents develop and the how to resolve them	Presentation
4.1, 4.2	Operational and Personal Protective Equipment (PPE)	As a trainee you have been asked to explain the general use, capabilities and limitations of operational equipment and PPE	Presentation
5.1 - 5.3	Working with Others	You have been asked to write an article about how the FRS works with the public and other responding organisations	Written report with diagrams

Essential resources

Learners should have access to library facilities for research purposes and to the internet to access governmental and inter-governmental websites. Fire and rescue services and other authorities have individual websites for their locality/region.

Footage from documentaries and accredited online broadcasts showing FRS personnel in their daily working lives can provide good examples of fire and special service incidents for learners.

Access to FRS operational equipment and personal protective equipment is essential to supporting learner understanding.

Indicative resource materials

Manuals and guides

The following manuals and guides have been issued to support the FRS. A local adaptation of what is described within them is sometimes covered by service-specific documentation, which is a source of information that should be utilised to support learner development. This type of documentation is in place to meet local risk, needs and resources.

Chief Fire and Rescue Advisers Unit/Communities and Local Government *Environmental Protection – Fire and Rescue Manual – Volume 2: Fire Service Operations* (The Stationery Office, 2008) ISBN 9780113413164

Chief Fire and Rescue Advisers Unit/Communities and Local Government – *Generic Risk Assessment 3.2 – High Rise Firefighting – Version 2 – September 2008* (The Stationery Office, 2008) ISBN 9780113413256

Chief Fire and Rescue Advisers Unit/Communities and Local Government – *Generic Risk Assessment 5.7 – Explosives – Version 2 – Part 1* (The Stationery Office, 2008) ISBN 9780113413225

Chief Fire and Rescue Advisers Unit/Communities and Local Government – *Incident Command – 3rd Edition (2008) – Fire and Rescue Manual – Volume 2: Fire Service Operations* (The Stationery Office, 2008) ISBN 9780113413218

Department for Communities and Local Government – *Generic Risk Assessments 1.1 – Emergency Response and Arrival at the Scene* (The Stationery Office, 2009) ISBN 9780117540163

HM Fire Service Inspectorate – *Acetylene Cylinder Incidents and Natural Gas Incidents – Fire and Rescue Service Manual – Volume 2: Fire Service Operations* (The Stationery Office, 2003) ISBN 9780113412266

HM Fire Service Inspectorate – *Aircraft Incidents – Fire and Rescue Service Manual Volume 2: Fire Service Operations* (The Stationery Office, 1999) ISBN 9780113411924

HM Fire Service Inspectorate – *Communications and Mobilising Fire Service Manual – Volume 1: Fire Service Technology, Equipment and Media* (The Stationery Office, 1998) ISBN 9780113411856

HM Fire Service Inspectorate – *Dynamic Management of Risk – Fire Service Guides* (The Stationery Office, 1998) ISBN 9780113412211

HM Fire Service Inspectorate – *Dynamic Risk Assessment Flowchart – Fire Service Guides* (The Stationery Office, 2000) ISBN 9780113412518

HM Fire Service Inspectorate – *Electricity – Fire and Rescue Service Manual – Volume 2: Fire Service Operations* (The Stationery Office, 1998) ISBN 9780113411122

HM Fire Service Inspectorate – *Firefighting Foam (Operational) – Fire and Rescue Service Manual – Volume 2: Fire Service Operations* (The Stationery Office, 1998) ISBN 9780113411863

HM Fire Service Inspectorate – *Firefighting Foam – Technical Fire Service Manual – Volume 1: Fire Service Technology, Equipment and Media* (The Stationery Office, 2000) ISBN 9780113411887

HM Fire Service Inspectorate – *Hydraulics, Pumps and Water Supplies – Fire Service Manual – Volume 1: Fire Service Technology, Equipment and Media* (The Stationery Office, 2001) ISBN 9780113412167

HM Fire Service Inspectorate – *Inspection and Testing of Equipment – Fire Service Manual – Volume 1: Fire Service Technology, Equipment and Media* (The Stationery Office, 2003) ISBN 9780113412747

HM Fire Service Inspectorate – *Marine Incidents – Fire and Rescue Service Manual – Volume 2: Fire Service Operations* (The Stationery Office, 1999) ISBN 9780113412310

HM Fire Service Inspectorate – *Physics and Chemistry for Firefighters – Fire Service Manual – Volume 1: Fire Service Technology, Equipment and Media* (The Stationery Office, 1998) ISBN 9780113411825

HM Fire Service Inspectorate – *Safe Work at Height – Fire and Rescue Service Manual – Volume 2: Fire Service Operations* (The Stationery Office, 2006) ISBN 9780113413126

HM Fire Service Inspectorate – *Safe Working Near, On or In Water – Fire and Rescue Service Manual – Volume 2: Fire Service Operations* (The Stationery Office, 2002) ISBN 9780113412686

HM Fire Service Inspectorate – *Tactical Ventilation and Compartment Fires Fire and Rescue Service Manual – Volume 2: Fire Service Operations* (The Stationery Office, 1997) ISBN 9780113411757

HM Fire Service Inspectorate – *Volume 1: A Guide for Senior Officers Fire Service Guides – Generic Risk Assessment Series* (The Stationery Office, 1998) ISBN 9780113412181

HM Fire Service Inspectorate – *Volume 2: A Guide for Managers Fire Service Guides – Generic Risk Assessment Series* (The Stationery Office, 1998) ISBN 9780113412198

HM Fire Service Inspectorate – *Volume 2: A Guide for Managers – Module 18: Health and Safety Audit – Fire Service Guides – Generic Risk Assessment Series* (The Stationery Office, 2001) ISBN 9780113412488

HM Fire Service Inspectorate – *Volume 3: A Guide to Operational Risk Assessment – Fire Service Guides – Generic Risk Assessment Series* (The Stationery Office, 1998) ISBN 9780113412204

Journals and magazines

Fire Magazine

Fire Times

Industrial Fire Journal

International Firefighter Magazine

Local FRS 'in-house' magazines

Websites

Each FRS has its own website.

Aviation Fire Journal	www.aviationfirejournal.com/
Chief Fire Officers' Association	www.cfoa.org.uk
Communities and Local Government	www.communities.gov.uk/fire/
Fire Magazine	www.fire-magazine.com
The Organisation for Emergency Services Management	www.joiff.com/
The Fire Service College, Moreton-in-Marsh	www.fireservicecollege.ac.uk
UK Fire Service Resources	www.fireservice.co.uk
Welsh Assembly Government	wales.gov.uk/topics/housingand community/safety/fire/?lang=en

Unit 3: Fire Fighter Role at Operational Incidents for Search, Rescue and Casualty Care

Unit reference number:	**R/502/9523**
Level:	**3**
Credit value:	**7**
Guided learning hours:	**30**

Unit aim

This unit focuses on the responsibilities fire fighters have when participating in search, rescue and casualty care at all types of operational incidents.

Unit introduction

This unit covers the knowledge, understanding and skills learners will need to work as team members searching for life and rescuing people during operational incidents relating to search, rescue and casualty care.

Learners will learn how to search for life safely using the range of personal protective and rescue equipment available to fire fighters. Example situations could include those within structures such as compartments, transport vehicles, open spaces, and rescuing life involved in incidents including when persons are trapped in wreckage, collapsed or dangerous structures and as a result of adverse weather conditions. Learners will also learn how to provide appropriate treatment to casualties and about casualty handling including their own responsibilities. Casualty handling situations include those within an incident environment, removed from an incident, when a casualty approaches fire fighters at an incident. Lines of communication and support for people at incidents as well as liaising with other agencies are also covered in this unit.

It is recommended that learners complete *Unit 1: Personal Responsibilities for Performance in the Fire and Rescue Service* and *Unit 2: Practices for Resolving Fire and Special Service Incidents* before completing this unit.

Learning outcomes and assessment criteria

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit.

On completion of this unit a learner should:

Learning outcomes		Assessment criteria	
1	Understand hazards and risks in search, rescue and casualty care operations faced by fire fighters	1.1	Explain the types of hazards and risks that may occur at search incidents
		1.2	Explain the types of hazards and risks that may occur at rescue incidents
		1.3	Explain the types of hazards and risks that may occur caring for casualties
		1.4	Explain how to apply decisions based on the assessment of risk in search, rescue and casualty care operations
2	Understand how fire fighters work with others in search, rescue and casualty operations	2.1	Describe roles and responsibilities of personnel at search, rescue and casualty care operations
		2.2	Explain the importance of effective communication with search, rescue and casualty care operations
		2.3	Explain the importance of gathering and sharing information in search, rescue and casualty care operations
		2.4	Explain how evidence from an incident is identified, preserved and recorded
3	Know procedures used by fire fighters for search and rescue and casualty care	3.1	Describe search procedures and techniques
		3.2	Describe rescue procedures and techniques
		3.3	Explain the procedures for using equipment at operational incidents involving search, rescue and casualty care

Unit content

1 **Understand hazards and risks in search, rescue and casualty care operations faced by fire fighters**

Hazards and risks: nature of hazards and risks at operational incidents involving search, rescue and casualty care; dynamic risk assessment eg incident environment for search and rescue, access and egress with casualties, saveable life, risk to self and others, position of casualty, assessment of actions in relation to casualty care eg treatment (ABC); triage

How to apply decisions based on the assessment of risk: search including search methodology; rescue eg use of specialist teams and equipment; casualty care eg dignity of casualty; prioritisation of casualty care including triage, how and when to provide immediate casualty care; appropriate casualty handling techniques

2 **Understand how fire fighters work with others in search, rescue and casualty operations**

Roles and responsibilities: limits of authority of self and others; behaviour towards colleagues, other services and the public in search, rescue and casualty care operations eg supporting distressed individuals, consideration of diversity, respect, dignity; how to identify evidence, how to preserve evidence and incident scenes

Communication: liaising with other agencies eg police, ambulance, local authority, local authority fire service, emergency planning department, NHS, intercompany departments; clear and effective lines of communication; incident command system; importance of communication eg to avoid problems (compromise health and safety, delay to reaction times, further injury)

Gathering and sharing of information: availability and sharing of information eg access to operational intelligence, collecting information, making decisions, factors that can influence end results; use of record systems in search, rescue and casualty care operations including identification and preservation of evidence/scene, dealing with fatalities, lessons learned, using information gathered and shared to improve practice for future incidents

3 **Know procedures used by fire fighters for search and rescue and casualty care**

Search, rescue and casualty care: procedures for fire and other incidents not involving fire eg transport incidents, risk area; skills and techniques eg releasing trapped people (cutting, lifting, spreading), for search and rescue; procedures for use of equipment

Capabilities and limitations: importance of using personnel with appropriate skills and authority for search, rescue and casualty care; of rescue and casualty care equipment including how to select and use appropriate equipment

Essential guidance for tutors

Delivery

Learners will require input from the FRS, especially in instances where the unit is not delivered as part of a fire fighter development programme. Evidence could be generated from visits to FRS establishments. Appropriate work placements could also be used to generate evidence.

Learners should have the opportunity to review high profile search, rescue and casualty care incidents involving media coverage, particularly incidents where the FRS has received praise and/or identified lessons to be learned from their actions. Footage from documentaries and FRS-accredited online broadcasts showing FRS personnel in their daily working lives will provide good material for group discussion. **Learners should review incidents involving people and incidents involving animals.**

It is recommended that delivery of this unit is as practical as possible to engage and motivate learners. It is suggested that a theoretical input is followed by examples of the theory in practice. This could be achieved through learners observing and reviewing a realistic scenario. A useful approach could be to set up scenarios of search and rescue by ladders at different levels of a building and/or breathing apparatus wearers searching a room(s) for casualties. Learners should be guided as to what to look for when observing and reviewing the scenario so they are able to identify effective and not so effective performance. Learners may have had personal experiences of such incidents which may be distressing, and therefore sensitivity should be applied.

Learners who are engaged in a FRS fire fighter development programme operated by a local authority in England, Wales, Scotland, Northern Ireland, or the Defence Fire Risk Management Organisation, or private and specialist fire and rescue services may find that this can be integrated into Units 2, 3 and 4 in this qualification.

It is recommended that visits to, and from, a variety of people/groups involved in fire and special service incidents are arranged, for example:

Visits to

FRS training establishment

FRS Station

Speakers from

FRS Operational Performance/Assurance Teams

FRS Training/Operations teams

FRS Fire Investigation Teams

Police Scenes of Crime Officers

Officers from relevant local and non-local authority organisations involved in supporting search and rescue responses eg ambulance service, armed services, Ministry of Defence, Coast Guard, RSPCA

Contact information for these organisations can be found on The Chief Fire Officers Association website (www.cfoa.org.uk/frs).

Outline learning plan

The outline learning plan has been included in this unit as guidance and can be used in conjunction with the programme of suggested assignments.

The outline learning plan demonstrates one way of planning the delivery and assessment of this unit.

Topic and suggested assignments/activities and/assessment
Introduction to unit and programme of assignments
Teaching activity – how responses to search, rescue and casualty care incidents are carried out
Case study analysis – reviewing actual incidents and identifying the role of the FRS within each
Teaching activity – hazards and risks associated with locating, removing and caring for casualties
Teaching activity – application of decision making
Case study analysis – incidents involving search, rescue and casualty care using the decision-making model
Assignment 1: Hazards, Risks and Decision Making
Review of Assignment 1 including tutor feedback and re-working
Teaching activity – roles, responsibilities, communication and information needs in relation to search, rescue and casualty care
Visiting speakers from operational performance/assurance teams, police, ambulance service
Teaching activity – evidence and security needs at operational incidents
Visiting speakers from FRS Fire Investigation Team, coroner's office, scene of crime officers
Assignment 2: Working with Others
Review of Assignment 2 including tutor feedback and re-working
Teaching activity – search and rescue techniques
Visits from FRS operations personnel
Teaching activity – use of equipment
Learner-led presentation on the limitations and capabilities of search, rescue and casualty care equipment
Assignment 3: Procedures and Equipment
Review of Assignment 3 including tutor feedback and re-working
Review of unit and programme of assignments

Assessment

It is recommended that assessment criteria are integrated to create holistic assignments. Observation and identification of information against specified objectives in assignments would provide evidence of learner understanding and of them meeting the assessment criteria.

A number of activities can be used to meet the assessment criteria of this unit. The FRS and other authorities involved in search, rescue and casualty care incidents may be able to provide practical information and possible case studies for learners to analyse.

It would be useful for learners to observe the FRS and other authorities involved in search, rescue and casualty care incidents in real or simulated incidents. Evidence could be in the form of written reports or presentations with effective evaluations and summaries. Evidence could also be gained from witness testimony.

Learners could devise a questionnaire and feedback forms, which could be used as part of investigatory interviews, presentations and discussions with members of the FRS and other authorities.

Programme of suggested assignments

The table below shows a programme of suggested assignments that cover the criteria in the assessment grid. This is for guidance only and it is recommended that centres either write their own assignments or adapt Pearson assignments to meet local needs and resources.

Criteria covered	Assignment title	Scenario	Assessment method
1.1 – 1.4	Hazards, Risks and Decision Making	On behalf of the FRS, you have been asked to produce an explanatory document for trainee ambulance personnel 'How FRS personnel manage the safety of casualties and themselves at incidents'	Written report with diagrams
2.1 – 2.4	Working with Others	You have been asked to explain the complexity of communication and security needs at the incident ground to newly elected Councillors of the Fire Authority	Presentation
3.1 – 3.3	Procedures and equipment	As part of an EU initiative you have been asked by your FRS to describe the search, rescue and casualty care procedures and equipment in use within the FRS to a group of English speaking delegates from outside the EU	Presentation

Essential resources

Learners should have access to library facilities for research purposes and to the internet to access governmental and inter-governmental websites. Learners must be made aware that fire and rescue services and other authorities have individual websites for each locality/region.

Footage from documentaries and accredited online broadcasts showing FRS personnel in their daily working lives can provide good examples of incidents involving search, rescue and casualty care for learners.

Access to FRS operational search, rescue and casualty care equipment and Personal protective equipment is essential to supporting learner understanding.

Indicative resource materials

Manuals and guides

The following manuals and guides have been issued to support the FRS. A local adaptation of what is described within them is sometimes covered by service-specific documentation, which is a source of information that should be utilised to support learner development. This type of documentation is in place to meet local risk, needs and resources.

Chief Fire and Rescue Advisers Unit/Communities and Local Government – *Incident Command – 3rd Edition – Fire and Rescue Manual – Volume 2: Fire Service Operations* (The Stationery Office, 2008) ISBN 9780113413218

Department for Communities and Local Government (DCLG) – *Generic Risk Assessment 2.5 – Large Animal Rescue* (The Stationery Office, 2010) ISBN 9780117540309

HM Fire Service Inspectorate – *Aircraft Incidents – Fire and Rescue Service Manual – Volume 2: Fire Service Operations* (The Stationery Office, 1999) ISBN 9780113411924

HM Fire Service Inspectorate – *Communications and Mobilising – Fire Service Manual – Volume 1: Fire Service Technology, Equipment and Media* (The Stationery Office, 1998) ISBN 9780113411856

HM Fire Service Inspectorate – *Dynamic Management of Risk – Fire Service Guides* (The Stationery Office, 1998) ISBN 9780113412211

HM Fire Service Inspectorate – *Dynamic Risk Assessment Flowchart – Fire Service Guides* (The Stationery Office, 2000) ISBN 9780113412518

HM Fire Service Inspectorate – *Electricity – Fire and Rescue Service Manual – Volume 2: Fire Service Operations* (The Stationery Office, 1998) ISBN 9780113411122

HM Fire Service Inspectorate – *Incidents Involving Rescue from Road Vehicles – Fire and Rescue Service Manual – Volume 2: Fire Service Operations* (The Stationery Office, 2007) ISBN 9780113413058

HM Fire Service Inspectorate – *Inspection and Testing of Equipment Fire Service Manual – Volume 1: Fire Service Technology, Equipment and Media* (The Stationery Office, 2003) ISBN 9780113412747

HM Fire Service Inspectorate – *Marine Incidents – Fire and Rescue Service Manual – Volume 2: Fire Service Operations* (The Stationery Office, 1999) ISBN 9780113412310

HM Fire Service Inspectorate – *Safe Work at Height – Fire and Rescue Service Manual – Volume 2: Fire Service Operations* (The Stationery Office, 2006) ISBN 9780113413126

HM Fire Service Inspectorate – *Safe Working Near, On or In Water – Fire and Rescue Service Manual – Volume 2: Fire Service Operations* (The Stationery Office, 2002) ISBN 9780113412686

HM Fire Service Inspectorate – *Tactical Ventilation and Compartment Fires Fire and Rescue Service Manual – Volume 2: Fire Service Operations* (The Stationery Office, 1997) ISBN 9780113411757

HM Fire Service Inspectorate – *Volume 3: A Guide to Operational Risk Assessment – Fire Service Guides – Generic Risk Assessment Series* (The Stationery Office, 1998) ISBN 9780113412204

Journals and magazines

Fire Magazine

Fire Times

Industrial Fire Journal

International Firefighter Magazine

Local FRS 'in-house' magazines

Websites

Each FRS has its own website.

Arson Prevention Bureau	www.arsonpreventionbureau.org.uk/
Aviation Fire Journal	www.aviationfirejournal.com/
Chief Fire Officers' Association	www.cfoa.org.uk
Department Communities and Local Government	www.communities.gov.uk/fire/
Fire Magazine	www.fire-magazine.com
The Organisation for Emergency Services Management	www.joiff.com/
The Fire Service College, Moreton-in-Marsh	www.fireservicecollege.ac.uk
UK Fire Service Resources	www.fireservice.co.uk
UK Resilience	interim.cabinetoffice.gov.uk/ukresilience.aspx
UK Urban Search & Rescue	www.ukusar.com/
Welsh Assembly Government	wales.gov.uk/topics/housingandcommunity/safety/fire/?lang=en

Unit 4:   Fire Fighter Responsibilities at Hazardous Material Incidents

Unit reference number: **Y/502/9524**

Level: **3**

Credit value: **7**

Guided learning hours: **30**

Unit aim

The aim of this unit is about developing learners' understanding of fire fighter responsibilities at hazardous material incidents.

Unit introduction

This unit explores how fire fighters work as members of a team in single or multiple crews, to respond to incidents involving hazardous material for example that present a potential hazard to health or the environment. Learners will learn about the different types hazardous materials, including their impact on the human body. They will learn how to use appropriate personal protective equipment and how to operate appropriate equipment to minimise damage to the environment from hazardous materials.

Learners will also explore the importance of limiting damage to the environment from hazardous materials Including the fire fighter's responsibility to work as a member of a team to respond to hazardous material incidents. They will learn about the different ways to decontaminate people and property.

Learning outcomes and assessment criteria

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit.

On completion of this unit a learner should:

Learning outcomes	Assessment criteria	
1 Understand hazards and risks at hazardous material incidents	1.1	Describe hazards and risks when working with hazardous material incidents
	1.2	Explain how to apply decisions based on the assessment of risk in hazardous material incidents
2 Know hazardous materials	2.1	Describe the classes of hazardous materials
	2.2	Interpret hazardous material panels and signs to determine response to hazards
	2.3	Describe the effects of hazardous materials on the body
	2.4	Identify legislation associated with hazardous materials
3 Understand how to respond to hazardous material incidents	3.1	Explain the methods of control and containment of hazardous materials
	3.2	Describe the capability and limitations of operational and personal protective equipment used at hazardous material incidents
	3.3	Explain how to select operational and personal protective equipment to meet hazardous material incident objectives
	3.4	Explain how to use operational and personal protective equipment to meet hazardous material incident objectives

Learning outcomes	Assessment criteria
4 Understand how to work with others at hazardous material incidents	4.1 Explain the importance of communication with colleagues, other agencies and the public
	4.2 Explain the importance of gathering and sharing information at hazardous material incidents
	4.3 Explain how fire fighters would identify, preserve and record evidence found at hazardous material incidents
	4.4 Describe the roles and responsibilities of personnel at hazardous material incidents

Unit content

---

1 **Understand hazards and risks at hazardous material incidents**

Hazards and risks: nature of hazards and risks at hazardous material incidents; dynamic risk assessment eg environment of hazardous material incident hazardous materials, access and egress, risk to self and others, wind direction, slope of ground, water table; how to apply decisions based on the assessment of risks at hazardous material incidents; identification of level of risk, safe systems of work, emergency action code, additional personal protection codes

2 **Know hazardous materials**

Classes: explosives, compressed gases, flammable liquids, flammable solids, oxidising agents and organic peroxides, toxic substances, poisonous substances, biological hazards, radioactive substances, miscellaneous dangerous substances, dust

Hazard panels and signs: gases, radioactive materials, agro-chemical stores, biohazards, other warning signs; interpretation of information in common labelling; transportation information panels, Hazard Warning Diamonds, United Nations Numbers, the ADR code Substance Identification Number, Kemlar code; use of hazard signs and codes to determine appropriate response to dealing with the hazards

Causes of harm: irritants, corrosives, toxic, carcinogens, mutagens, teratogens, agents of anoxia, narcotics, oxidising agents

Routes of entry into the body: inhalation, ingestion, absorption

Legislation and regulations: including Health and Safety, Control of Substances Hazardous to Health (COSHH Regulations), Control of Major Accident Hazards, transportation of hazardous materials, personal protective equipment requirements, decontamination requirements

3 **Understand how to respond to hazardous material incidents**

Methods of control and containment: pre-planning, training and information, pre-determined attendance, specialist equipment, incident command, inner/outer cordons, topographical features, safety of personnel, health surveillance, electrical apparatus, considerations at incidents, personal protective clothing/equipment, containment procedures, limiting damage to property and the environment; agencies involved eg CHEMMET, CHEMDATA, TOPS, CHEMSAFE, NAIR, RIMNET, RADSAFE, Environment Agency, local authority fire service organisations, the Metrological Office

Equipment: fire fighting equipment, decontamination equipment, personal protective equipment (breathing apparatus, chemical protection suits, PVC gauntlets, rubber boots); limits and capabilities of equipment

Decontamination: purpose of decontamination eg to protect people, environment and property; selection of decontamination equipment, selection and setting up of decontamination zone, designation of decontamination team, methods and procedures of decontamination, initial decontamination zone, full decontamination zone; disposal and decontamination of contaminated items and materials through liaison with other agencies eg Environment Agency/Scottish Environment Protection Agency (SEPA)

4 **Understand how to work with others at hazardous material incidents**

Communication: liaising with other agencies eg Environment Agency, police, ambulance, local authority, local authority fire service, emergency planning department, NHS, intercompany departments; liaising with others eg manufacturers, scientific advisers, site owners/management, general public; clear and effective lines of communication; incident command system

Information: availability and sharing of information including access to operational intelligence eg HAZMAT CHEMDATA; collecting information, making decisions, factors that can influence end results; use of record systems in hazardous material incidents including identification and preservation of evidence/scene

Roles and responsibilities: limits of authority of self and others; behaviour towards colleagues, other services and the public in hazardous material incidents eg supporting distressed individuals, consideration of diversity, respect, dignity

Essential guidance for tutors

Delivery

Learners will require input from the FRS, especially in instances where the unit is not delivered as part of a fire fighter development programme. Evidence could be generated from visits to FRS establishments. Appropriate work placements could also be used to generate evidence.

Learners should have the opportunity to review high profile hazardous material incidents involving media coverage, particularly incidents where the FRS has received praise and/or identified lessons to be learned from their actions. Footage from documentaries and FRS-accredited online broadcasts showing FRS personnel in their daily working lives will provide good material for group discussion.

It is recommended that delivery of this unit is as practical as possible to engage and motivate learners. It is suggested that a theoretical input is followed by examples of the theory in practice. This could be achieved through learners observing and reviewing a realistic scenario. For example, a useful approach could be to set up a scenario of a decontamination zone and/or hazardous material incident. Learners should be guided as to what to look for when observing and reviewing the scenario so they are able to identify effective and not so effective performance. Learners may have had personal experiences of such incidents which may be distressing, and therefore sensitivity should be applied.

Learners who are engaged in a FRS fire fighter development programme operated by a local authority in England, Wales, Scotland, Northern Ireland, or the Defence Fire Risk Management Organisation, or private and specialist fire and rescue services may find that this can be integrated into Units 2, 3 and 4 in this qualification.

It is recommended that visits to, and from, a variety of people/groups involved in fire and special service incidents are arranged, for example:

Visits to

FRS Training establishment

Hazardous materials storage site

Visits from

FRS HAZMAT officer

FRS Scientific Adviser

Environmental Protection officer

Officers from relevant local and non-local authority organisations involved in supporting hazardous material incident responses eg Highways Agency, ambulance service, armed services, Ministry of Defence.

Contact information for these organisations can be found on The Chief Fire Officers Association website (www.cfoa.org.uk/frs).

Outline learning plan

The outline learning plan has been included in this unit as guidance and can be used in conjunction with the programme of suggested assignments.

The outline learning plan demonstrates one way of planning the delivery and assessment of this unit.

Topic and suggested assignments/activities and/assessment
Introduction to unit and programme of assignments
Teaching activity – how responses to hazardous materials incidents are carried out
Case study analysis – reviewing actual incidents and identifying the role of the FRS within each
Teaching activity incorporating a visit to a hazardous materials storage site – hazards and risks associated with stored materials
Teaching activity – application of decision making
Learner research – identifying the impact of a hazardous material incident on the decision-making model
Assignment 1: Hazards, Risks and Decision Making
Review of Assignment 1 – including tutor feedback and re-working
Teaching activity – legislation, classes and signage
Visits from FRS scientific services, environmental protection officer
Teaching activity – effects of hazardous materials
Learner research on the human body's reaction to hazardous materials
Assignment 2: Hazardous Materials
Review of Assignment 2 – including tutor feedback and re-working
Teaching activity – control and containment
Visits from FRS HAZMAT officer
Teaching activity – use of equipment
Learner-led seminar on the use, limitations and capabilities of operational and personal protective equipment
Assignment 3: Response to Hazardous Material Incidents
Review of Assignment 3 – including tutor feedback and re-working
Review of unit and programme of assignments

Assessment

It is recommended that assessment criteria are integrated to create holistic assignments. Observation and identification of information against specified objectives in assignments would provide evidence of learner understanding and of them meeting the assessment criteria.

A number of activities can be used to meet the assessment criteria of this unit. The FRS and other authorities involved in search, rescue and casualty care incidents may be able to provide practical information and possible case studies for learners to analyse.

It would be useful for learners to observe the FRS and other authorities involved in hazardous materials incidents in real or simulated incidents. Evidence could be in the form of written reports or presentations with effective evaluations and summaries. Evidence could also be gained from witness testimony.

Learners could devise a questionnaire and feedback forms, which could be used as part of investigatory interviews, presentations and discussions with members of the FRS and other authorities.

Programme of suggested assignments

The table below shows a programme of suggested assignments that cover the criteria in the assessment grid. This is for guidance only and it is recommended that centres either write their own assignments or adapt Pearson assignments to meet local needs and resources.

Criteria covered	Assignment title	Scenario	Assessment method
1.1 – 1.2	Hazards, Risks and Decision Making	On behalf of the FRS, you have been asked to explain to new employees of a chemical company how the FRS manage their safety when dealing with incidents involving hazardous materials	Presentation
2.1 – 2.4	Hazardous Materials	You have been asked to produce an explanatory document for local companies that store/manufacture hazardous materials which outlines the legislation, classes, signage and effects in relation to these materials	Written document with diagrams
3.1 – 3.4	Response to Hazardous Material Incidents	As part of an emergency services cooperation initiative you have been asked by your FRS to describe the methods of control/ containment for hazardous materials and the equipment used to deal with hazards material incidents	Presentation

Essential resources

Learners should have access to library facilities for research purposes and to the internet to access governmental and inter-governmental websites. Learners must be made aware that fire and rescue services and other authorities have individual websites for each locality/region.

Footage from documentaries and accredited online broadcasts showing FRS personnel in their daily working lives can provide good examples of incidents involving hazardous materials for learners.

Access to FRS equipment used to deal with hazardous materials and personal protective equipment is essential to supporting learner understanding.

Indicative resource materials

Manuals and guides

The following manuals and guides have been issued to support the FRS. A local adaptation of what is described within them is sometimes covered by service-specific documentation, which is a source of information that should be utilised to support learner development. This type of documentation is in place to meet local risk, needs and resources.

Chief Fire and Rescue Advisers Unit/Communities and Local Government – *Generic Risk Assessment 3.2 – High Rise Firefighting – Version 2* (The Stationery Office, 2008) ISBN 9780113413256

Chief Fire and Rescue Advisers Unit/Communities and Local Government – *Incident Command – 3rd Edition – Fire and Rescue Manual – Volume 2: Fire Service Operations* (The Stationery Office, 2008) ISBN 9780113413218

Department for Communities and Local Government – *Generic Risk Assessments 5.4 – Incidents Involving Biological Hazards* (The Stationery Office, 2010) ISBN 9780117540767

Department for Communities and Local Government – *Generic Risk Assessment 5.9 – Incidents Involving Asbestos Containing Materials (ACMs)* (The Stationery Office, 2010) ISBN 9780117540842

Health & Safety Executive (HSE) – *Arrangements for dealing with nuclear incidents* (HSE Books, 1994) ISBN 9780717608287

HM Fire Service Inspectorate – *Communications and Mobilising Fire Service Manual – Volume 1: Fire Service Technology, Equipment and Media* (The Stationery Office, 1998) ISBN 9780113411856

HM Fire Service Inspectorate – *Dynamic Management of Risk – Fire Service Guides* (The Stationery Office, 1998) ISBN 9780113412211

HM Fire Service Inspectorate – *Dynamic Risk Assessment Flowchart – Fire Service Guides* (The Stationery Office, 2000) ISBN 9780113412518

HM Fire Service Inspectorate – *Inspection and Testing of Equipment Fire Service Manual – Volume 1: Fire Service Technology, Equipment and Media* (The Stationery Office, 2003) ISBN 9780113412747

HM Fire Service Inspectorate – *Volume 1: A Guide for Senior Officers Fire Service Guides – Generic Risk Assessment Series* (The Stationery Office, 1998) ISBN 9780113412181

HM Fire Service Inspectorate – *Volume 3: A Guide to Operational Risk Assessment – Fire Service Guides – Generic Risk Assessment Series* (The Stationery Office, 1998) ISBN 9780113412204

National Chemical Emergency Centre (NCEC) – *Dangerous Goods Emergency Action Code List 2009* (The Stationery Office, 2009) ISBN 9780113413263 (N.B. Currently updated every other year)

Journals and magazines

Fire Magazine

Fire Times

Industrial Fire Journal

International Firefighter Magazine

Local FRS 'in-house' magazines

Websites

Each FRS has its own website.

Chief Fire Officers' Association	www.cfoa.org.uk
Defra	www.defra.gov.uk/environment/waste/topics/hazwaste/
Department of Communities and Local Government	www.communities.gov.uk/fire/
Environment Agency	www.environment-agency.gov.uk/default.aspx
Fire Magazine	www.fire-magazine.com
The Fire Service College, Moreton-in-Marsh	www.fireservicecollege.ac.uk
Health & Safety Executive	www.hse.gov.uk/coshh/index.htm
The Organisation for Emergency Services Management	www.joiff.com/
UK Fire Service Resources	www.fireservice.co.uk
UK Resilience	interim.cabinetoffice.gov.uk/ukresilience.aspx
Welsh Assembly Government	wales.gov.uk/topics/housingandcommunity/safety/fire/?lang=en

Unit 5: Resources to Support Fire Fighters for Operational Response at Incidents

Unit reference number: D/502/9525

Level: 3

Credit value: 6

Guided learning hours: 30

Unit aim

The aim of this unit is to provide learners with the knowledge and understanding of the different resources that fire fighters use to support effective operational response at incidents.

Unit introduction

This unit explores the different types of information and resources within the community that fire fighters use for operational responses including information about potential risks. The unit also explores the roles of individuals and teams in collecting new, or updating existing, information on risks in the community. Risks in the community include sites that contain hazards needing special responses such as chemical, biological and radioactive hazards, as well as sites that by their nature need special responses for example hospitals, shipyards, zoos, airports. Other examples include risks that might lead to an incident such as derelict or unoccupied property.

Learners will also explore how information is recorded in relation to the community and how it is used by the fire and rescue services. The aspects of communication covered in *Unit 2: Practices for Resolving Fire and Special Service Incidents* underpin this unit.

Learning outcomes and assessment criteria

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit.

On completion of this unit a learner should:

Learning outcomes	Assessment criteria	
1 Understand the information fire fighters require on hazards and risks in the community	1.1	Describe the information required for records of risk sites
	1.2	Identify the legislative requirements and organisational policies for gathering risk site information
	1.3	Explain the methods of gathering risk site information
	1.4	Explain the systems available for recording risk site information
	1.5	Explain the use of recorded information to support the effectiveness of operational response
2 Know the available resources within the community to support operational response	2.1	Describe physical resources within communities that supports operational response
	2.2	Describe available information resources within communities that support operational response
3 Understand requirements for testing and maintaining fire rescue service internal resources	3.1	Explain how internal resources are tested and maintained
	3.2	Explain the importance of testing and maintaining resources

Unit content

1 **Understand the information fire fighters require on hazards and risks in the community**

Hazards and risks within the community: types eg process, life, property, heritage, environment, hazardous material, high monetary value, risk to commerce, risk to industry

Current legislation and organisational policies: *areas of* legislation including fire and rescue services, health and safety, environmental, civil contingencies; organisational policies, aims and objectives in relation to risks and resources

Site-specific information: including gathering information on risk sites, from responsible person, records of risks in local area, dissemination and availability of information

Collecting information on risks in the community: types of information collected including sites that contain hazards needing special responses (eg chemical, biological and radioactive), sites that by their nature need special responses eg hospitals, shipyards, zoos, airports), risks that might lead to an incident (eg derelict or unoccupied property), topography

2 **Know the available resources within the community to support operational response**

Physical resources: human resources, other agencies eg police, ambulance service, Environment Agency, Highways Agency; types of fixed installation eg sprinkler systems, other fire suppression systems, ventilation systems; bulk storage of fire-fighting media; bulk storage of decontamination media; storage of fire-fighting equipment; water supplies; fire and rescue service access to water supplies and risk sites; on-site emergency team

Information resources: types eg map, local availability of water supplies, foam supplies, alarm systems, ventilation systems, active, passive; construction eg buildings, structure, aircraft, transport; site-specific information

3 **Understand requirements for testing and maintaining fire and rescue service internal resources**

Internal resources: equipment eg ladders, cutting equipment, small gear, personal protective equipment (PPE); personnel, knowledge eg topography

Instructions for maintenance of internal resources: brigade/fire service orders, manufacturer's instructions

Importance of maintaining resources: periodic testing and maintaining of all equipment; recording systems; operational readiness; availability of media and equipment eg foam, servicing spares; rectifying deficiencies eg replenishing consumables, repair/replace, defect reporting; responsibility to maintain internal resources within limitations of own role

Essential guidance for tutors

Delivery

Learners will require input from the FRS, especially in instances where the unit is not delivered as part of a fire fighter development programme. Evidence could be generated from visits to FRS establishments. Appropriate work placements could also be used to generate evidence.

Learners should have opportunities to view a location(s) and information the FRS has collated to understand FRS information requirements. Footage from documentaries and FRS-accredited online broadcasts showing fixed fire fighting installations and associated visits/inspections will provide good material for group discussion.

It is recommended that delivery of this unit is as practical as possible to engage and motivate learners. It is suggested that a theoretical input is followed by examples of the theory in practice. This could be achieved through learners observing and reviewing actual work or a realistic scenario. For example, a useful approach could be to set up a scenario of gathering risk site information. Learners should be guided as to what to look for when observing and subsequently reviewing the information gathered to understand its use.

It is recommended that visits to, and from, a variety of people/groups involved in organising the resource arrangements that support fire fighters are arranged, for example:

Visits to

FRS Control

FRS Station

Speakers from

FRS Fire Safety teams

FRS Operations teams

Officers from relevant local and non-local authority organisations involved in contributing to resources that support fire fighters eg water companies, airports, rail, ports, county councils.

Contact information for these organisations can be found on The Chief Fire Officers Association website (www.cfoa.org.uk/frs).

Outline learning plan

The outline learning plan has been included in this unit as guidance and can be used in conjunction with the programme of suggested assignments.

The outline learning plan demonstrates one way in planning the delivery and assessment of this unit.

Topic and suggested assignments/activities and/assessment
Introduction to unit and programme of assignments
Teaching activity – legislation and organisational policies
Case study analysis – information needs, recording methods and systems
Visits from FRS Control personnel
Teaching activity – information supporting operations
Case study analysis – use of information at an FRS incident
Assignment 1: Hazard and Risk Information
Review of Assignment 1, including tutor feedback and re-working
Teaching activity – physical resources within the community
Visits from FRS operations personnel
Teaching activity – information resources within the community
Learner-led seminar on the resources available to the FRS within a diverse geographical risk area
Assignment 2: Resources Within the Community
Review of Assignment 2, including tutor feedback and re-working
Teaching activity – testing and maintenance
Visits from FRS operations personnel
Learner research identifying the reasons for the different requirements for testing and maintaining internal resources
Assignment 3: Testing and Maintaining Internal Resources
Review of Assignment 3, including tutor feedback and re-working
Review of unit and programme of assignments

Assessment

It is recommended that assessment criteria are integrated to create holistic assignments. Observation and identification of information against specified objectives in assignments would provide evidence of learner understanding and of them meeting the assessment criteria.

A number of activities can be used to meet the assessment criteria of this unit. The FRS and other authorities involved in organising resources to support the FRS may be able to provide practical information and possible case studies for learners to analyse.

It would be useful for learners to observe situations where the FRS and other organisations are involved in resource collation and maintenance. Evidence could be in the form of written reports or presentations with effective evaluations and summaries. Evidence could also be gained from witness testimony.

Learners could devise a questionnaire and feedback forms, which could be used as part of investigatory interviews, presentations and discussions with members of the FRS and other organisations.

Programme of suggested assignments

The table below shows a programme of suggested assignments that cover the criteria in the assessment grid. This is for guidance only and it is recommended that centres either write their own assignments or adapt Pearson assignments to meet local needs and resources.

Criteria covered	Assignment title	Scenario	Assessment method
1.1 – 1.5	Hazard and Risk Information	You have been asked to draft an article for a local magazine to explain the reasons the FRS collates information on hazards and risks in the community	Written report with diagrams
2.1 – 2.2	Resources Within the Community	As part of a community safety initiative you have been asked to review your local area and identify both the physical and information resources available within the community to support FRS operations	Presentation
3.1 – 3.2	Testing and Maintaining Internal Resources	To assist with FRS Authority understanding, you have been asked to explain the testing and maintenance arrangements for internal resources and their importance in ensuring the effective day-to-day operation of a fire station	Presentation

Essential resources

Learners should have access to library facilities for research purposes and to the internet to access governmental and inter-governmental websites. Learners must be made aware that fire and rescue services and other authorities have individual websites for each locality/region.

Footage from documentaries and accredited online broadcasts showing FRS personnel in their daily working lives can provide good examples for learners.

Access to the different types of FRS resources referred to within the *Unit* conent is essential to support learner understanding.

Indicative resource materials

Manuals and guides

The following manuals and guides have been issued to support the FRS. A local adaptation of what is described within them is sometimes covered by service-specific documentation, which is a source of information that should be utilised to support learner development. This type of documentation is in place to meet local risk, needs and resources.

Chief Fire and Rescue Advisers Unit/Communities and Local Government – *Environmental Protection – Fire and Rescue Manual – Volume 2: Fire Service Operations* (The Stationery Office, 2008) ISBN 9780113413164

Department for Communities and Local Government – *Generic Risk Assessments 1.1 – Emergency Response and Arrival at the Scene* (The Stationery Office, 2009) ISBN 9780117540163

HM Fire Service Inspectorate – *Aircraft Incidents – Fire and Rescue Service Manual – Volume 2: Fire Service Operations* (The Stationery Office, 1999) ISBN 9780113411924

HM Fire Service Inspectorate – *Firefighting Foam – Technical Fire Service Manual – Volume 1: Fire Service Technology, Equipment and Media* (The Stationery Office, 2000) ISBN 9780113411887

HM Fire Service Inspectorate – *Hydraulics, Pumps and Water Supplies Fire Service Manual – Volume 1: Fire Service Technology, Equipment and Media* (The Stationery Office, 2001) ISBN 9780113412167

HM Fire Service Inspectorate – *Inspection and Testing of Equipment Fire Service Manual – Volume 1: Fire Service Technology, Equipment and Media* (The Stationery Office, 2003) ISBN 9780113412747

HM Fire Service Inspectorate – *Marine Incidents – Fire and Rescue Service Manual – Volume 2: Fire Service Operations* (The Stationery Office, 1999) ISBN 9780113412310

HM Fire Service Inspectorate – *Safe Working Near, On or In Water – Fire and Rescue Service Manual – Volume 2: Fire Service Operations* (The Stationery Office, 2002) ISBN 9780113412686

HM Fire Service Inspectorate – *Volume 3: A Guide to Operational Risk Assessment – Fire Service Guides – Generic Risk Assessment Series* (The Stationery Office, 1998) ISBN 9780113412204

Journals and magazines

Fire Magazine

Fire Times

Industrial Fire Journal

International Firefighter Magazine

Local FRS 'in-house' magazines

Websites

Each FRS has its own website.

Chief Fire Officers' Association	www.cfoa.org.uk
Department for Communities and Local Government	www.communities.gov.uk/fire/
Fire & Rescue Services Act 2004	www.legislation.gov.uk
The Regulatory Reform (Fire Safety) Order 2005	www.legislation.gov.uk
UK Fire Service Resources	www.fireservice.co.uk
Welsh Assembly Government	wales.gov.uk/topics/housingandcommunity/safety/fire/?lang=en

Further information

To get in touch with us visit our 'Contact us' pages:

- Edexcel, BTEC and Pearson Work Based Learning contact details: qualifications.pearson.com/en/support/contact-us.html

- books, software and online resources for UK schools and colleges: www.pearsonschoolsandfecolleges.co.uk

Key publications:

- *Adjustments for candidates with disabilities and learning difficulties – Access and Arrangements and Reasonable Adjustments, General and Vocational qualifications (Joint Council for Qualifications (JCQ))*

- *Equality Policy (Pearson)*

- *Recognition of Prior Learning Policy and Process (Pearson)*

- *UK Information Manual (Pearson)*

- *UK Quality Vocational Assurance Handbook (Pearson).*

All of these publications are available on our website.

Publications on the quality assurance of BTEC qualifications are available on our website at qualifications.pearson.com

Our publications catalogue lists all the material available to support our qualifications. To access the catalogue and order publications, please go to qualifications.pearson.com

Additional resources

If you need further learning and teaching materials to support planning and delivery for your learners, there is a wide range of BTEC resources available.

Any publisher can seek endorsement for their resources, and, if they are successful, we will list their BTEC resources on our website, qualifications.pearson.com

How to obtain National Occupational Standards

Skills for Justice
Centre Court
Atlas Way
Sheffield
S4 7QQ
Telephone: 0114 261 1499
Email: info@skillsforjustice.com
Website: www.skillsforjustice.com

Professional development and training

Pearson supports UK and international customers with training related to BTEC qualifications. This support is available through a choice of training options offered on our website: qualifications.pearson.com

The support we offer focuses on a range of issues, such as:

- planning for the delivery of a new programme

- planning for assessment and grading

- developing effective assignments

- building your team and teamwork skills

- developing learner-centred learning and teaching approaches

- building in effective and efficient quality assurance systems.

The national programme of training we offer is on our website at: qualifications.pearson.com. You can request centre-based training through the website or you can contact one of our advisers in the Training from Pearson UK team via Customer Services to discuss your training needs.

BTEC training and support for the lifetime of the qualifications

Training and networks: our training programme ranges from free introductory events through sector-specific opportunities to detailed training on all aspects of delivery, assignments and assessment. We also host some regional network events to allow you to share your experiences, ideas and best practice with other BTEC colleagues in your region.

Regional support: our team of Curriculum Development Managers and Curriculum Support Consultants, based around the country, are responsible for providing advice and support in centres. They can help you with planning and curriculum developments.

To get in touch with our dedicated support teams please visit: qualifications.pearson.com

Your Pearson support team

Whether you want to talk to a sector specialist, browse online or submit your query for an individual response, there's someone in our Pearson support team to help you whenever – and however – you need:

- Subject Advisors: find out more about our subject advisor team – immediate, reliable support from a fellow subject expert

- Ask the Expert: submit your question online to our Ask the Expert online service and we will make sure your query is handled by a subject specialist.

Please visit, qualifications.pearson.com/en/support/contact-us.html

Annexe A

Wider curriculum mapping

Pearson BTEC Level 3 Specialist qualifications give learners opportunities to develop an understanding of spiritual, moral, ethical, social and cultural issues as well as an awareness of citizenship, environmental issues, European developments, health and safety considerations and equal opportunities issues.

Spiritual, moral, ethical, social and cultural issues

Throughout the delivery of these qualifications learners will have the opportunity to actively participate in different kinds of decision making. They will have to consider fair and unfair situations and explore how to resolve conflict. Working in small groups they will learn how to respect and value others' beliefs, backgrounds and traditions.

Citizenship

Learners undertaking these qualifications will have the opportunity to develop their understanding of citizenship issues.

Environmental issues

Developing a responsible attitude towards the care of the environment is an integral part of this qualification. Learners are encouraged to minimise waste and discuss controversial issues.

European developments

Much of the content of the qualification applies throughout Europe, even though the delivery is in a UK context.

Health and safety considerations

Health and safety is embedded within many of the units in this qualification. Learners will consider their own health and safety at work, how to identify risks
and hazards and how to minimise those risks.

Equal opportunities issues

There will be opportunities throughout this qualification to explore different kinds of rights and how they affect both individuals and communities, for example learners will consider their rights at work and the rights of employers and how these rights affect the work community.

Annexe B

National Occupational Standards mapping

The grid below maps the knowledge covered in the Pearson BTEC Level 3 Diploma in **Error! Reference source not found.** against the underpinning knowledge of the National Occupational Standards in Fire and Rescue Services.

KEY

\#   indicates partial coverage of the NVQ unit

a blank space indicates no coverage of the underpinning knowledge

NOS Units	1	2	3	4	5
FF2. Take responsibility for effective performance in fire and rescue	#				
FF3. Save and preserve endangered life		#			
FF4. Resolve fire and rescue operational incidents			#		
FF5. Protect the environment from the effects of hazardous materials				#	
FF6. Support the effectiveness of operational response					#

Annexe C

Mapping to Level 2 Functional Skills

Level 2	Unit number				
English – Speaking, Listening and Communication	**1**	**2**	**3**	**4**	**5**
Make a range of contributions to discussions in a range of contexts, including those that are unfamiliar, and make effective presentations	✔	✔	✔	✔	✔
English – Reading					
Select, read, understand and compare texts and use them to gather information, ideas, arguments and opinions	✔	✔	✔	✔	✔
English – Writing					
Write a range of texts, including extended written documents, communicating information, ideas and opinions, effectively and persuasively	✔	✔	✔	✔	✔

Level 2	Unit number				
Mathematics – representing:	**1**	**2**	**3**	**4**	**5**
Understand routine and non-routine problems in familiar and unfamiliar contexts and situations		✔	✔	✔	✔
Identify the situation or problems and identify the mathematical methods needed to solve them		✔	✔		✔
Choose from a range of mathematics to find solutions		✔	✔		✔
Mathematics – analysing					
Apply a range of mathematics to find solutions		✔			✔
Use appropriate checking procedures and evaluate their effectiveness at each stage		✔			✔
Mathematics – interpreting					
Interpret and communicate solutions to multistage practical problems in familiar and unfamiliar contexts and situations		✔	✔	✔	✔
Draw conclusions and provide mathematical justifications		✔	✔		✔