

**HAZMAT
ACADEMY**

HAZMAT TRAINING PROSPECTUS

The solution to all your hazmat and response training needs

NCEC
Part of Ricardo



SUMMARY

The Hazmat Academy is a hazardous materials (hazmat) training model. It addresses the current issues faced by the emergency services and those in the chemical industry who have to respond to and manage hazmat incidents. Using the best technological advancements, training software and delivery methods, the model includes courses that people can undertake in their own home, in an office environment or even on a train if that's what they want to do. This flexibility saves time and, through a reduced amount of face-to-face training, is more cost-effective.

The UK's National Chemical Emergency Centre (NCEC), which is part of Ricardo, provides off-the-shelf and bespoke hazmat training that can be delivered in person, via distance-based learning or through a combination of both. Each training package balances the technical requirements of the subject matter with the tactical understanding of how this will be put into practice operationally.



OVERCOMING THE TRAINING CHALLENGES

Through their liaison with hazmat leads in Category 1 organisations (the emergency services, local authorities and NHS bodies), NCEC's experts know that many have had to restructure and have experienced budget cuts leading to reduced staff levels. This has led to shift rotas having a reduced number of hazmat advisers, who may also now have various other responsibilities. Consequently, because of these operational challenges, it has become increasingly difficult to release staff from their rotas to attend hazmat training courses – particularly for courses that are longer than a day.

There is a desire to remedy this situation and to introduce higher frequencies of hazmat training for other staff, such as first responders and those who are non-hazmat adviser flexi-duty officers. Due to a lack of flexibility in existing training models, budget constraints and staffing levels, remedying this situation has proved to be very difficult and, in some instances, impossible.

Emergency services and other organisations have had to rethink and modernise their approach to staff training by developing solutions that take the operational challenges into account.

While developing a new model for hazmat training, our experts considered all of the challenges being experienced and created contemporary training packages that help to maintain an organisation's hazmat response capability while developing staff competencies.

NCEC's Hazmat Academy¹ provides a flexible solution that enables hazmat training to be completed at a pace that suits all learners. Furthermore, due to training being partially delivered through distance learning, the impact on staff availability for rotas is reduced and so is travel and subsistence costs, making the approach very cost-effective.

NCEC's hazmat team is keen to create partnerships with emergency services and other organisations that require hazmat response and incident management training. This document outlines the training courses that are currently on offer. If an organisation wishes to tailor a course or develop its own bespoke hazmat training courses to meet specific requirements, our team would be delighted to discuss this.

¹For more information, visit www.thehazmatacademy.co.uk

TRAINING SOLUTIONS TO ENABLE A BETTER RESPONSE TO INCIDENTS



ROYAL SOCIETY
OF CHEMISTRY

APPROVED
TRAINING



JOIFF

HAZMAT ACADEMY

By creating the Hazmat Academy, NCEC has revolutionised hazmat training by providing a contemporary solution that meets the needs of individuals, and takes account of the modern-day challenges that emergency services and commercial organisations are facing.

The Hazmat Academy is the place where you can network with other hazmat specialists; share ideas; ask questions; participate in chaired discussions with subject matter experts; undertake training; and work in partnership with NCEC to develop a safe, effective, competent and confident response to an incident.

All the Hazmat Academy's hazmat courses and the Site Incident Controller course align with the UK 'National Operational Guidance (NOG) – Foundation for hazardous materials', health and safety legislation, and industry best practice. They are also accredited by the International Organisation for Industrial Emergency

Services Management (JOIFF). For international organisations that require National Fire Protection Association (NFPA) qualifications, all these courses can be written to standards that are derived from the NFPA. These NFPA-compliant courses will also receive accreditation by JOIFF. The industry chemical response training courses have all been accredited by the Royal Society of Chemistry and certified by the CPD Certification Service.

The flexibility offered by the Hazmat Academy courses means learners can pick and choose certain modules that are relevant to them and only do the ones they need to complete their personal training goals. This bespoke nature means the courses can be tailored to help an organisation meet its requirements. All training and consultancy through the Hazmat Academy is undertaken by NCEC's subject matter experts who are current or former fire officers and/or chemists who have significant industrial experience.

DELIVERY METHODOLOGY

All the Hazmat Academy courses can be delivered using a blended learning approach (that is a combination of distance learning and face-to-face training). However, some courses can be undertaken purely through distance learning and all courses can be delivered using the traditional face-to-face method if required.

HOW IS THIS ACHIEVED?



INSTRUCTIONAL VIDEOS

Our expert trainers have created a series of high-quality, instructional videos that can be viewed an unlimited number of times. This enables learners to watch, pause, rewind and review the material as many times as they wish, so minimising the risk of not fully understanding a particular aspect or topic.



ONLINE TUTORIALS

Some aspects of each course can be delivered via online tutorials with an instructor. Having a set number of people in a group maximises each learner's engagement with the content.



DISCUSSIONS AND PODCASTS

During online group discussions, instructors will discuss topics with relevant experts from around the world. Learners can simply listen in or take an active part in the discussions.

A series of podcasts are available via the Hazmat Academy that cover all aspects of the hazmat world – from actions upon arrival at hazmat incidents to dealing with protracted incidents. Experts from all over the world will take part in these podcasts, ensuring a truly global and holistic approach to hazmat competence.



ONLINE SCENARIOS

The Hazmat Academy provides regular virtual scenarios that are based on real incidents. These can be used as part of continuous professional development or just to find out about incidents that hazmat professionals have dealt with around the world. Following these sessions, the case study of the real incident, as dealt with by the NCEC's emergency responders, will be made available where appropriate. Where possible, the on-scene incident commander and/or hazmat tactical adviser will be invited to discuss the difficulties of the incident and the tactics used to successfully mitigate the incident and bring it to a satisfactory conclusion.

TYPES OF TRAINING COURSES

EMERGENCY RESPONSE



CHEMICAL RESPONSE



DISTANCE LEARNING



EMERGENCY RESPONSE TRAINING COURSES

Below are the JOIFF-accredited, standard UK fire and rescue service courses available through the Hazmat Academy. They also align with the UK 'National Operational Guidance (NOG) – Foundation for hazardous materials', health and safety legislation, and industry best practice.

If your organisation has a bespoke hazmat training requirement that meets your own standards and/or emergency response operations, and requires high-quality, accredited and cost-effective courses, then the Hazmat Academy trainers will be happy to assist you.

**HAZARDOUS MATERIALS
FIRST RESPONDER**

**HAZARDOUS MATERIALS
INSTRUCTOR**

**HAZARDOUS MATERIALS
ADVISER INITIAL**

**HAZARDOUS MATERIALS
ADVISER REVALIDATION**



EMERGENCY RESPONSE TRAINING COURSES

HAZARDOUS MATERIALS
FIRST RESPONDER

HAZARDOUS MATERIALS
INSTRUCTOR

HAZARDOUS MATERIALS
ADVISER INITIAL

HAZARDOUS MATERIALS
ADVISER REVALIDATION

COURSE OVERVIEW

The aim of this course is to provide first responders or those having an incident command responsibility with the necessary knowledge and practical experience to be able to competently deal with an incident involving hazardous materials. The course gives learners the understanding and confidence to bring a hazmat incident to a successful conclusion or manage incident ground activities until a tactical adviser or specialist officer arrives. Learners will be prepared for whichever route they want to take.

The course is accredited by JOIFF and aligns with the UK 'National Operational Guidance (NOG) – Foundation for hazardous materials', health and safety legislation, and industry best practice. Its flexible nature means it can be adapted to be in accordance with international standards.



EMERGENCY RESPONSE TRAINING COURSES

HAZARDOUS MATERIALS
FIRST RESPONDER

HAZARDOUS MATERIALS
INSTRUCTOR

HAZARDOUS MATERIALS
ADVISER INITIAL

HAZARDOUS MATERIALS
ADVISER REVALIDATION

LEARNERS WILL COVER THE FOLLOWING ASPECTS:

- ♦ NOG – Foundation for hazardous materials.
- ♦ Incident scene management.
- ♦ Proportionate response.
- ♦ UN classes of dangerous goods.
- ♦ Globally Harmonized System of Classification and Labelling of Chemicals.
- ♦ Information gathering at the scene of a hazmat incident using:
 - Chemdata®, NCEC’s interactive chemical hazard database.
 - Chemsafe, the UK chemical industry’s advice scheme for emergency services.
 - The Dangerous Goods Emergency Action Code.
 - The Emergency Response Guidebook (ERG) Physical properties of hazardous materials.
- ♦ Initial operational response.
- ♦ Joint Emergency Services Interoperability Principles (JESIP).
- ♦ Wet chemistry and field testing (kits can be purchased from the Hazmat Academy).

DURING THE COURSE, LEARNERS WILL BE INVOLVED WITH AND LEAD INCIDENTS INVOLVING, BUT NOT LIMITED TO:

- ♦ Asbestos.
- ♦ Individual chemical exposures.
- ♦ Fly tipping of hazardous waste.
- ♦ Transportation of hazmat on railways.
- ♦ Illicit laboratories.
- ♦ Commercial processes.
- ♦ Carbon monoxide.
- ♦ Boiling liquid expanding vapour explosions (BLEVE) – a practical demonstration of liquefied petroleum gas (LPG).

EMERGENCY RESPONSE TRAINING COURSES

HAZARDOUS MATERIALS
FIRST RESPONDER

HAZARDOUS MATERIALS
INSTRUCTOR

HAZARDOUS MATERIALS
ADVISED INITIAL

HAZARDOUS MATERIALS
ADVISED REVALIDATION



WHO SHOULD ATTEND

This 4-day, practical course is suitable for people who are expected to take charge at a hazmat incident and who have not attended the Hazmat Academy's hazardous materials adviser initial course. One day of introductory content can be sent out prior to the face-to-face training commencing or can be delivered in person as the first day of a 5-day course. If an organisation wants a bespoke first responder course to be delivered via the Hazmat Academy's distance learning model, this can be arranged following consultation. The course has been successfully delivered to fire and rescue services (FRS), airport and private sector FRSs, and hazmat spill and clean-up teams.



DELIVERY MODEL AND FLEXIBILITY

The course is delivered by at least two experts from the Hazmat Academy who have spent time as Category 1 first responders, tactical advisers or sector-competent chemists. Some of the content is compulsory to ensure the course complies with the UK 'National Operational Guidance (NOG) – Foundation for hazardous materials', health and safety legislation, and industry best practice. However, because there is some flexibility with the course content, organisations can discuss their individual requirements with the Hazmat Academy trainers. This flexibility enables local and regional trends, and current issues to be covered.



ASSESSMENT

Each learner will be assessed on their practical ability as they take charge of an incident and will then receive feedback on their performance. Learners will also need to complete a written question paper that requires a mixture of short and essay-style answers.

EMERGENCY RESPONSE TRAINING COURSES

HAZARDOUS MATERIALS
FIRST RESPONDER

HAZARDOUS MATERIALS
INSTRUCTOR

HAZARDOUS MATERIALS
ADVISER INITIAL

HAZARDOUS MATERIALS
ADVISER REVALIDATION

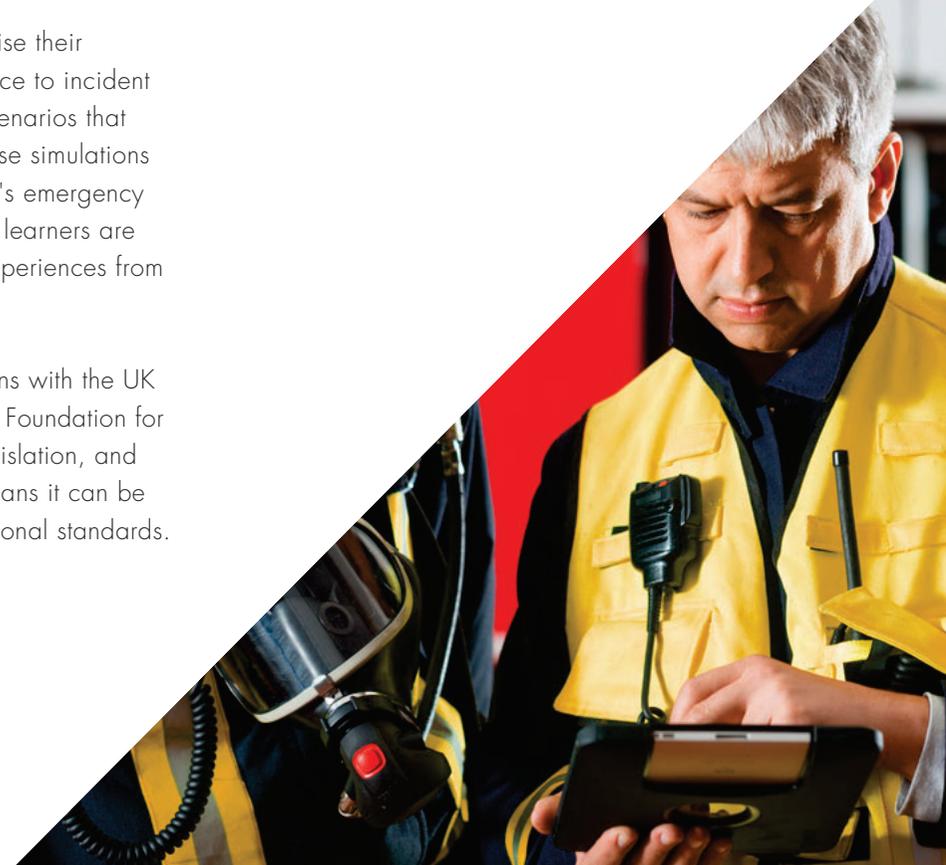
COURSE OVERVIEW

The aim of this course is to develop knowledge, understanding, skills and instructional ability to enable learners to deliver hazmat training to first responders in line with the UK firefighter development unit FF5 – 'Protect the environment from the effects of hazardous materials'.

Where possible, all course scenarios are taken from incidents that NCEC's emergency responders have assisted with during the 12 months prior to a course starting. This means all training is as current as possible.

Learners are given the opportunity to practise their operational skills and provide tactical advice to incident commanders by participating in various scenarios that are delivered via computer simulation. These simulations are taken from recent incidents that NCEC's emergency responders have assisted with. This means learners are getting the most up-to-date and relevant experiences from this course.

The course is accredited by JOIFF and aligns with the UK 'National Operational Guidance (NOG) – Foundation for hazardous materials', health and safety legislation, and industry best practice. Its flexible nature means it can be adapted to be in accordance with international standards.



EMERGENCY RESPONSE TRAINING COURSES

HAZARDOUS MATERIALS
FIRST RESPONDER

HAZARDOUS MATERIALS
INSTRUCTOR

HAZARDOUS MATERIALS
ADVISER INITIAL

HAZARDOUS MATERIALS
ADVISER REVALIDATION

LEARNERS WILL COVER THE FOLLOWING ASPECTS:

- ♦ NOG – Foundation for hazardous materials.
- ♦ Incident scene management.
- ♦ Environmental protection.
- ♦ Proportionate response.
- ♦ UN classes of dangerous goods.
- ♦ Globally Harmonized System of Classification and Labelling of Chemicals.
- ♦ Information gathering at the scene of a hazmat incident using:
 - Chemdata®, NCEC's interactive chemical hazard database.
 - Chemsafe, the UK chemical industry's advice scheme for emergency services.
 - The Dangerous Goods Emergency Action Code.
 - The Emergency Response Guidebook (ERG) Physical properties of hazardous materials.
- ♦ Physical properties of elements and molecules.
- ♦ Initial operational response.
- ♦ Decontamination methods.
- ♦ Designing hazmat scenarios.

UPON SUCCESSFUL COMPLETION OF THIS COURSE, LEARNERS WILL:

- ♦ Be able to develop and deliver high-quality hazmat presentations in line with the UK 'National Operational Guidance (NOG) – Foundation for hazardous materials', health and safety legislation, and industry best practice.
- ♦ Be able to develop, facilitate and debrief hazmat exercises.
- ♦ Be able to advise on the selection of suitable personal protective equipment (PPE) for hazmat incidents.
- ♦ Be able to advise on suitable decontamination methods.
- ♦ Be able to deliver hazmat training to recruits and first responders.

EMERGENCY RESPONSE TRAINING COURSES

HAZARDOUS MATERIALS
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ADVISED INITIAL

HAZARDOUS MATERIALS
ADVISED REVALIDATION



WHO SHOULD ATTEND

This course is designed for those who have, or at some point in the future will have, a training responsibility within the fire and rescue service (FRS) or other relevant industry. Attendees on this course should be working towards or should have achieved the level 3 teaching award or an appropriate alternative.

Breathing apparatus will have to be worn at times throughout this course. Therefore, learners should have successfully completed a suitable fitness test within their organisation prior to attending the course. Before attending the course, learners should remove any facial hair that may affect the seal on the face mask of the breathing apparatus set.



DELIVERY MODEL AND FLEXIBILITY

The course is delivered by at least two experts from the Hazmat Academy who have spent time as Category 1 first responders, tactical advisers or sector-competent chemists.

This course comprises two parts. The first is a distance learning package that consists of instructional videos and recorded discussions with hazmat experts. This material

will be provided at the commencement of the course and has to be completed before learners attend the second part – the 1-week in-person training element. During the second part, learners design and deliver scenarios for other learners. There will be set dates for the in-person element of each course for which all learners are expected to be available. Both parts of the course must be completed within 4 weeks of commencing.



ASSESSMENT

A variety of methods are used to assess learners. Each person will have to design, develop, deliver and debrief a scenario as part of a team. They will also will be assessed practically as they take on the role of exercise director, and will receive written and verbal feedback based on their performance. Each learner's performance will also be assessed through a written question paper that requires a mixture of short and essay-style answers. Finally, each learner will be expected to give a theoretical presentation on a given hazmat subject.

EMERGENCY RESPONSE TRAINING COURSES

HAZARDOUS MATERIALS
FIRST RESPONDER

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INSTRUCTOR

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ADVISER INITIAL

HAZARDOUS MATERIALS
ADVISER REVALIDATION

COURSE OVERVIEW

The aim of this course is to develop the knowledge, understanding and skills of emergency responders to enable them to work and progress in the role of hazmat tactical adviser. Having worked alongside the emergency services since 1973, NCEC understands the complexity that some incidents involve and the benefits of a multi-agency, collaborative approach to manage protracted and complex incidents. With this in mind, specialists from various fields will be brought in to assist with the delivery of various aspects of this course. Specialists will be from organisations such as the Environment Agency, Public Health England, the Met Office and specialist clean-up companies.

Where possible, all course scenarios are taken from incidents that NCEC's emergency responders have assisted with during the 12 months prior to a course starting. This means all training is as current as possible.

Learners are given the opportunity to practise their operational skills and provide tactical advice to incident commanders by participating in various scenarios that are delivered via computer simulation. These simulations are taken from recent incidents that NCEC's emergency responders have assisted with. This means learners are getting the most up-to-date and relevant experiences from this course.

The course is accredited by JOIFF and aligns with the UK 'National Operational Guidance (NOG) – Foundation for hazardous materials', health and safety legislation, and industry best practice. Its flexible nature means it can be adapted to be in accordance with international standards.



EMERGENCY RESPONSE TRAINING COURSES

HAZARDOUS MATERIALS
FIRST RESPONDER

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INSTRUCTOR

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ADVISER INITIAL

HAZARDOUS MATERIALS
ADVISER REVALIDATION

LEARNERS WILL COVER THE FOLLOWING ASPECTS:

- ♦ Basic chemistry.
- ♦ Incident scene management.
- ♦ Personal protective equipment (PPE)
- ♦ Proportionate response.
- ♦ Decontamination.
- ♦ Information gathering at the scene of a hazmat incident using:
 - Chemdata®, NCEC's interactive chemical hazard database.
 - Chemsafe, the UK chemical industry's advice scheme for emergency services.
 - The Dangerous Goods Emergency Action Code.
 - The Emergency Response Guidebook (ERG) Physical properties of hazardous materials.
- ♦ Smoke plumes and products of combustion.
- ♦ Environmental protection.
- ♦ Plume modelling.
- ♦ UN classes of dangerous goods.
- ♦ Radiation.
- ♦ Wet chemistry and sampling.
- ♦ Practical scenarios for all UN classes of dangerous goods.
- ♦ Chemical suicides.
- ♦ Agricultural chemicals.

UPON SUCCESSFUL COMPLETION OF THIS COURSE, LEARNERS WILL:

- ♦ Be able to provide hazmat tactical advice to incident commanders.
- ♦ Be able to complete a written risk assessment specific to the role of a hazmat tactical adviser.
- ♦ Be able to advise on suitable environmental protection.
- ♦ Be able to select relevant agencies to request assistance with incidents.
- ♦ Be able to retrieve and interpret relevant information from a variety of different sources.
- ♦ Be able to practically demonstrate their skills, knowledge and understanding through operationally carrying out the role of hazmat adviser.

EMERGENCY RESPONSE TRAINING COURSES

HAZARDOUS MATERIALS
FIRST RESPONDER

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ADVISER REVALIDATION



WHO SHOULD ATTEND

This course has been designed for those who have been identified by their organisation to be suitable for the role of hazmat tactical adviser or those who work in specialist roles within a hazmat response organisation.



DELIVERY MODEL AND FLEXIBILITY

Throughout this course, learners will study all the UN classes of dangerous goods, theoretically and in a scenario-based context. If specific topics need to be covered, these should be discussed with the Hazmat Academy trainers in advance of the course starting.

The course is delivered by at least two experts from the Hazmat Academy who have spent time as Category 1 first responders, tactical advisers or sector-competent chemists.

This course is traditionally a 3-week, in-person course. As an alternative to attending 3 weeks of face-to-face training, the Hazmat Academy offers this course with 2 weeks of content delivered via a distance learning model, using a blended approach of tutorials, videos, discussions, podcasts and virtual scenarios. The final week is delivered in person and consists of an intensive programme of scenario-based learning, using subject matter experts as role players, and real chemicals to

simulate incidents and replicate 'on-the-job' learning. There will be set dates (Monday to Friday) for the in-person element of each course for which all learners are expected to be available. This course must be completed within 2 months of commencing.



ASSESSMENT

Learners will be assessed through the completion of a scenario, during which they will be required to complete a hazmat and environmental risk assessment, and provide tactical advice to an incident commander.

EMERGENCY RESPONSE TRAINING COURSES

HAZARDOUS MATERIALS
FIRST RESPONDER

HAZARDOUS MATERIALS
INSTRUCTOR

HAZARDOUS MATERIALS
ADVISER INITIAL

HAZARDOUS MATERIALS
ADVISER REVALIDATION

COURSE OVERVIEW

The aim of this course, which is accredited by JOIFF, is to refresh the knowledge, understanding and skills of existing hazmat advisers in line with the UK 'National Operational Guidance (NOG) – Foundation for hazardous materials', health and safety legislation, and industry best practice. Its flexible nature means it can be adapted to be in accordance with international standards.

Where possible, all course scenarios are taken from incidents that NCEC's emergency responders have assisted with during the 12 months prior to a course starting. This means all training is as current as possible.

Learners are given the opportunity to practise their operational skills and provide tactical advice to incident commanders by participating in various scenarios that are delivered via computer simulation. These simulations are taken from recent incidents that NCEC's emergency responders have assisted with. This means learners are getting the most up-to-date and relevant experiences from this course.



EMERGENCY RESPONSE TRAINING COURSES

HAZARDOUS MATERIALS
FIRST RESPONDER

HAZARDOUS MATERIALS
INSTRUCTOR

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HAZARDOUS MATERIALS
ADVISER REVALIDATION

LEARNERS WILL COVER THE FOLLOWING ASPECTS:

- ◆ Incident scene management.
- ◆ Information gathering at the scene of a hazmat incident.
- ◆ Chemical and physical properties of elements and molecules.
- ◆ Environmental protection.
- ◆ UN classes of dangerous goods.
- ◆ Case studies and scenarios.
- ◆ Asbestos.
- ◆ Plume modelling and acute exposure guidelines.

UPON SUCCESSFUL COMPLETION OF THIS COURSE, LEARNERS WILL:

- ◆ Have refreshed their knowledge and understanding on providing tactical advice to incident commanders.
- ◆ Be able to complete a written risk assessment specific to the role of a hazmat tactical adviser.
- ◆ Be able to advise incident commanders on suitable environmental protection.
- ◆ Be able to select relevant agencies to request assistance with incidents.
- ◆ Be able to retrieve and interpret relevant information from a variety of different sources.
- ◆ Be able to practically demonstrate their refreshed skills and knowledge through operationally carrying out the role of a hazmat adviser.

EMERGENCY RESPONSE TRAINING COURSES

HAZARDOUS MATERIALS
FIRST RESPONDER

HAZARDOUS MATERIALS
INSTRUCTOR

HAZARDOUS MATERIALS
ADVISER INITIAL

HAZARDOUS MATERIALS
ADVISER REVALIDATION



WHO SHOULD ATTEND

This course has been designed for existing hazmat advisers who have not refreshed their skills within the last 3 years. This course is also applicable to non-UK hazmat advisers as it can be adapted to fit and align with the relevant international standards.



DELIVERY MODEL AND FLEXIBILITY

The course is delivered by at least two experts from the Hazmat Academy who have spent time as Category 1 first responders, tactical advisers or sector-competent chemists.

Although some aspects of this course are mandatory, the flexibility offered by the Hazmat Academy enables trainers to include current local, regional and national trends, or areas of interest specific to your requirements or operational guidance. This adaptation can be implemented following discussions between a learner or their training department and the Hazmat Academy trainers in advance of the course starting.

This course is offered over 4 days and can be completed fully in person or through a combination of in-person and distance learning.

This will include practical scenarios using real chemicals, where suitable, to replicate 'on-the-job' learning, followed by assessments. There will be set dates for the in-person element of the course for which all learners are expected to be available. The course must be completed within 4 weeks of commencing.



ASSESSMENT

Learners will be assessed through the completion of a scenario, during which they will be required to complete a hazmat and environmental risk assessment, and provide tactical advice to an incident commander.

CHEMICAL RESPONSE TRAINING COURSES

**SITE INCIDENT
CONTROLLER**

**CHEMICAL SPILL
RESPONSE**

**CHEMICAL HAZARD
AWARENESS**

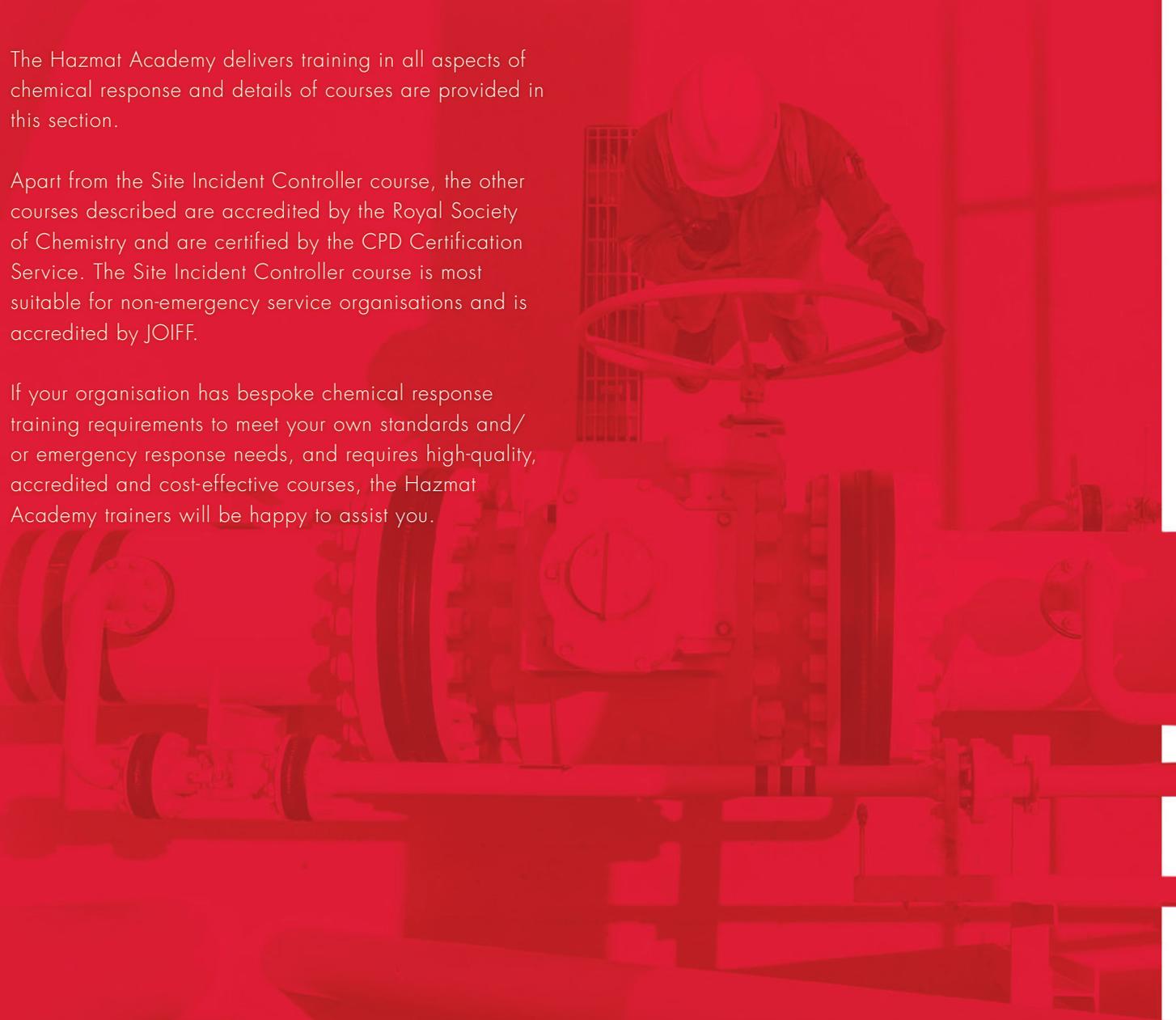
**HAZMAT
1ST RESPONSE**

**RESPONSE TO INCIDENTS
INVOLVING CHEMICAL EXPOSURES**

The Hazmat Academy delivers training in all aspects of chemical response and details of courses are provided in this section.

Apart from the Site Incident Controller course, the other courses described are accredited by the Royal Society of Chemistry and are certified by the CPD Certification Service. The Site Incident Controller course is most suitable for non-emergency service organisations and is accredited by JOIFF.

If your organisation has bespoke chemical response training requirements to meet your own standards and/or emergency response needs, and requires high-quality, accredited and cost-effective courses, the Hazmat Academy trainers will be happy to assist you.



CHEMICAL RESPONSE TRAINING COURSES

COURSE OVERVIEW

The aim of this course is to equip learners with the knowledge and skills to competently undertake all the responsibilities of a site incident controller in accordance with relevant regulations, in the event of an emergency. This course is accredited by JOIFF and written to comply with National Fire Chiefs Council's National Operational Guidance (NOG) – Foundation for hazardous materials.

**SITE INCIDENT
CONTROLLER**

**CHEMICAL SPILL
RESPONSE**

**CHEMICAL HAZARD
AWARENESS**

**HAZMAT
1ST RESPONSE**

**RESPONSE TO INCIDENTS
INVOLVING CHEMICAL EXPOSURES**



CHEMICAL RESPONSE TRAINING COURSES

**SITE INCIDENT
CONTROLLER**

**CHEMICAL SPILL
RESPONSE**

**CHEMICAL HAZARD
AWARENESS**

**HAZMAT
1ST RESPONSE**

**RESPONSE TO INCIDENTS
INVOLVING CHEMICAL EXPOSURES**

LEARNERS WILL COVER THE FOLLOWING ASPECTS:

- ♦ Non-technical skills, which include:
 - Communication.
 - Decision making.
 - Situational awareness.
 - Teamwork.
- ♦ Role and responsibilities of the site incident controller.
- ♦ Command and control.
- ♦ Emergency response service liaison.
- ♦ Personnel safety and casualty response.
- ♦ Safe area identification and emergency evacuation procedures.

CHEMICAL RESPONSE TRAINING COURSES

**SITE INCIDENT
CONTROLLER**

**CHEMICAL SPILL
RESPONSE**

**CHEMICAL HAZARD
AWARENESS**

**HAZMAT
1ST RESPONSE**

**RESPONSE TO INCIDENTS
INVOLVING CHEMICAL EXPOSURES**



WHO SHOULD ATTEND

This course is suitable for personnel who are expected to take charge of clean-up operations involving hazardous materials.



DELIVERY MODEL AND FLEXIBILITY

The course is delivered in person, with a day of classroom input around roles and responsibilities of the site incident controller. This is done to enhance the ability of personnel to take on this role via development of their non-technical skill sets.

The course is delivered by hazmat experts who have all spent time as fire and rescue service first responders, tactical advisers, sector-competent chemists or non-technical skills specialists. While some of the content for this course is compulsory to comply with UK 'National Operational Guidance (NOG) – Foundation for hazardous materials', health and safety legislation, and industry best practice, there is some flexibility that enables those purchasing the course to add content of their choice following discussion with the Hazmat Academy trainers in advance of the course starting.



ASSESSMENT

Learners will be assessed practically as they take charge of an incident and will receive feedback based on their performance. Each learner's performance will also be assessed through a written question paper that requires a mixture of short and essay-style answers.

CHEMICAL RESPONSE TRAINING COURSES

**SITE INCIDENT
CONTROLLER**

**CHEMICAL SPILL
RESPONSE**

**CHEMICAL HAZARD
AWARENESS**

**HAZMAT
1ST RESPONSE**

**RESPONSE TO INCIDENTS
INVOLVING CHEMICAL EXPOSURES**

COURSE OVERVIEW

This course provides sufficient knowledge about the theory of spill response to enable learners to plan for and respond to spills in their own organisation (for example, a spill in a laboratory or warehouse, or even a leak from a bulk tanker). This course is accredited by the Royal Society of Chemistry and is certified by the CPD Certification Service.

This course provides learners with the ability to recognise hazards and understand the information that accompanies chemicals. It offers a comprehensive view on the properties of chemical substances and how they might behave when spilt. This will help learners to fully assess the risks associated with a spill and devise a plan to deal with it, enabling the response team to follow a safe way of working.

This course is ideal for those who are considering setting up or already have a spill response team in their workplace.



CHEMICAL RESPONSE TRAINING COURSES

SITE INCIDENT
CONTROLLER

CHEMICAL SPILL
RESPONSE

CHEMICAL HAZARD
AWARENESS

HAZMAT
1ST RESPONSE

RESPONSE TO INCIDENTS
INVOLVING CHEMICAL EXPOSURES

LEARNERS WILL COVER THE FOLLOWING ASPECTS:

- ♦ Hazard identification – learn how to obtain hazard and risk information quickly (for example, from hazchem placards and labels) and how to turn a safety data sheet (SDS) into an emergency document.
- ♦ Properties and behaviour – know how chemicals may behave in different circumstances when released from their containers.
- ♦ Chemical effects and first aid – the ways in which a responder can be exposed to substances, the effects these may have on them and some simple steps to take if contact is made with such substances.
- ♦ Assessing the situation – consider how far an incident may have progressed and what might happen next.
- ♦ The theory of response – learn how to plan a response instead of rushing in. This course will guide learners from start to finish with response options and incident site management arrangements, and debriefing before leaving the scene.

CHEMICAL RESPONSE TRAINING COURSES

SITE INCIDENT
CONTROLLER

CHEMICAL SPILL
RESPONSE

CHEMICAL HAZARD
AWARENESS

HAZMAT
1ST RESPONSE

RESPONSE TO INCIDENTS
INVOLVING CHEMICAL EXPOSURES



WHO SHOULD ATTEND

This course is aimed at anyone involved in responding to a chemical spill in the workplace. Learners come from a variety of backgrounds including couriers, waste clean-up contractors, laboratory workers and safety personnel.



DELIVERY MODEL AND FLEXIBILITY

This 1-day course teaches chemical hazard awareness coupled with the theory of spill response. There is also the option to add a practical exercise to test a learner's ability to deal with an incident in the workplace.

Optional practical sessions can be added after the classroom work, but it should be noted that the theory modules will be abridged to allow time for this to take place. Our trainers will work with organisations to consider the type of spill scenario they wish to cover, then provide a guided practical session for teams to 'have a go' in a realistic, yet safe, environment.

The benefits of including a practical session include:

- ♦ Providing the opportunity to practise procedures in a learner's own workplace.
- ♦ Gaining hands-on experience of using protective clothing and spill kits.
- ♦ Demonstrating how quickly incidents can escalate.
- ♦ Providing a realistic understanding of the problems that face response teams.

The structure of the course means we are able to customise the content to include the chemicals found at an organisation's premises and to incorporate its spill procedure.



ASSESSMENT

Learners will be informally assessed throughout the course and will receive feedback based on their performance.

CHEMICAL RESPONSE TRAINING COURSES

**SITE INCIDENT
CONTROLLER**

**CHEMICAL SPILL
RESPONSE**

**CHEMICAL HAZARD
AWARENESS**

**HAZMAT
1ST RESPONSE**

**RESPONSE TO INCIDENTS
INVOLVING CHEMICAL EXPOSURES**

COURSE OVERVIEW

This course provides the vital knowledge learners need to make better risk assessments of the work they do and enables them to make the right choices about safe handling procedures, selecting the correct personal protective equipment (PPE), and making an effective and safe response to a spillage. This course is accredited by the Royal Society of Chemistry and is certified by the CPD Certification Service.



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LEARNERS WILL COVER THE FOLLOWING ASPECTS:

- ◆ The ability to recognise hazard information.
- ◆ An understanding of how to read chemical names.
- ◆ An understanding of safety data sheets (SDS) and how to use the data for risk assessments.
- ◆ The knowledge to predict a chemical's behaviour if it is accidentally released.
- ◆ An appreciation of how chemicals affect people and what poses an immediate danger.
- ◆ A short introduction to assessing risks.
- ◆ A look at the types of PPE that may have to be considered and a reminder that a white laboratory coat is not a universal protector.

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WHO SHOULD ATTEND

This course is aimed at people working in a chemical environment, whether regularly or in an emergency, who would like a better understanding of the chemicals they deal with and how they might be affected by them during their work or in the event of an incident.

Learners attending this course have come from a variety of backgrounds including hauliers, production plant operators, warehouse staff, health and safety officers, logistics managers, facilities managers, industry responders, government agency staff, dangerous goods safety advisers, emergency services staff and local authority emergency planners.



DELIVERY MODEL AND FLEXIBILITY

This is a 1-day training course. The structure of the course means we are able to customise the content to include the chemicals found at an organisation's premises.



ASSESSMENT

Learners will be informally assessed throughout the course and will receive feedback based on their performance.

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COURSE OVERVIEW

This course enables effective communication between the 'experts' (those providing the technical information on the substance) and those dealing with the incident (the emergency services).

Effective communication is often the main problem encountered between these two groups of people. Those providing the technical information are frequently scientists or technical staff who don't 'speak the same language' as the emergency services and other groups dealing with the situation. In addition, they may have no experience of real incidents and so cannot put themselves in the position of the responders at the scene.

Hazmat 1st response has been exclusively developed by NCEC in conjunction with Responsible Care[®] experts from the Chemical Industries Association (CIA) and the Chemical Business Association (CBA); and leading hazmat specialists from the police, and fire and rescue services. This course is accredited by the Royal Society of Chemistry and is certified by the CPD Certification Service.

It is designed to support anyone providing information about, or attending, chemical incidents, and addresses the need to make a rapid, relevant and reliable response to requests for chemical information from the emergency services.



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LEARNERS WILL COVER THE FOLLOWING ASPECTS:

- ♦ An overview of the UK Chemsafe scheme and how its three response levels work.
- ♦ An explanation of the role of the fire and rescue service, other Category 1 services and supporting response organisations.
- ♦ A summary of vehicle placarding, labels and other documentation such as safety data sheets (SDS).
- ♦ An outline of the operational aspects of an incident such as hazard and control zones.
- ♦ An idea of the type of questions the emergency services may ask.
- ♦ An explanation on how to provide the right answers and not overwhelm the caller with information.
- ♦ A discussion around what to consider if there is a need to escalate the response.

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WHO SHOULD ATTEND

This course is for anyone involved in providing a response during a chemical incident, either directly or indirectly, who may also need to interact with the emergency services. Learners attending this course have come from a variety of backgrounds including dangerous goods safety advisers; safety, health and environment managers; emergency service personnel; waste clean-up contractors; and transport company operators.



DELIVERY MODEL AND FLEXIBILITY

This is a 1-day training course and includes a series of desktop exercises that get learners working together to solve response problems.



ASSESSMENT

Learners will be informally assessed throughout the course and will receive feedback based on their performance.

CHEMICAL RESPONSE TRAINING COURSES

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LEARNERS WILL COVER THE FOLLOWING ASPECTS:

- ♦ Hazard identification – discover how to identify hazard and risk information from placards and labels, and how to read a safety data sheet (SDS).
- ♦ Chemical properties and behaviour – know how the physical properties of chemicals affect the likelihood of causing harm.
- ♦ Chemical effects – learn the routes of chemical exposure, the signs and symptoms to look for, and the likely effects.
- ♦ First aid – learn how to make a safe response, how different exposures affect the body and how to carry out simple first aid measures to prevent further harm.

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WHO SHOULD ATTEND

This course is aimed at those who use chemicals or work in an environment where chemicals are handled and would like a better understanding of the type of first aid that can be performed following a chemical exposure. It is an essential addition for those who are already FAWW qualified.



DELIVERY MODEL AND FLEXIBILITY

This is a 1-day course that includes some hands-on exercises to develop a learner's skills and understanding, and improve their confidence in making a response to chemical exposures.



ASSESSMENT

The course is assessed through a variety of activities throughout the session. Each learner will be informally assessed and will receive feedback based on their performance.

◆ DISTANCE LEARNING MODULES

The following distance learning modules have been designed as eLearning sessions to be used as continuous professional development for hazmat advisers between their revalidation dates, recruit learning and first responder development or to maintain their competence. All distance learning modules are accredited by JOIFF and written to align with National Operational Guidance (NOG).

The modules are available separately as licence agreements for a set number of employees and can be packaged with our comprehensive training programmes. They are delivered via the Hazmat Academy's Moodle™ site or via your organisation's chosen learning management software.

Our experts fully understand and acknowledge the busy schedules of flexi-duty officers and those responsible for managing hazardous materials. Therefore, each distance learning module is split into four bite-sized sections that take between 10 and 15 minutes to complete. Furthermore, our platform allows learners to pause working on the eLearning session (for example, when they are suddenly called to deal with an incident) and pick up where they left off once they have the time to continue. They can pick up through a different computer and/or at a different location if they so wish.



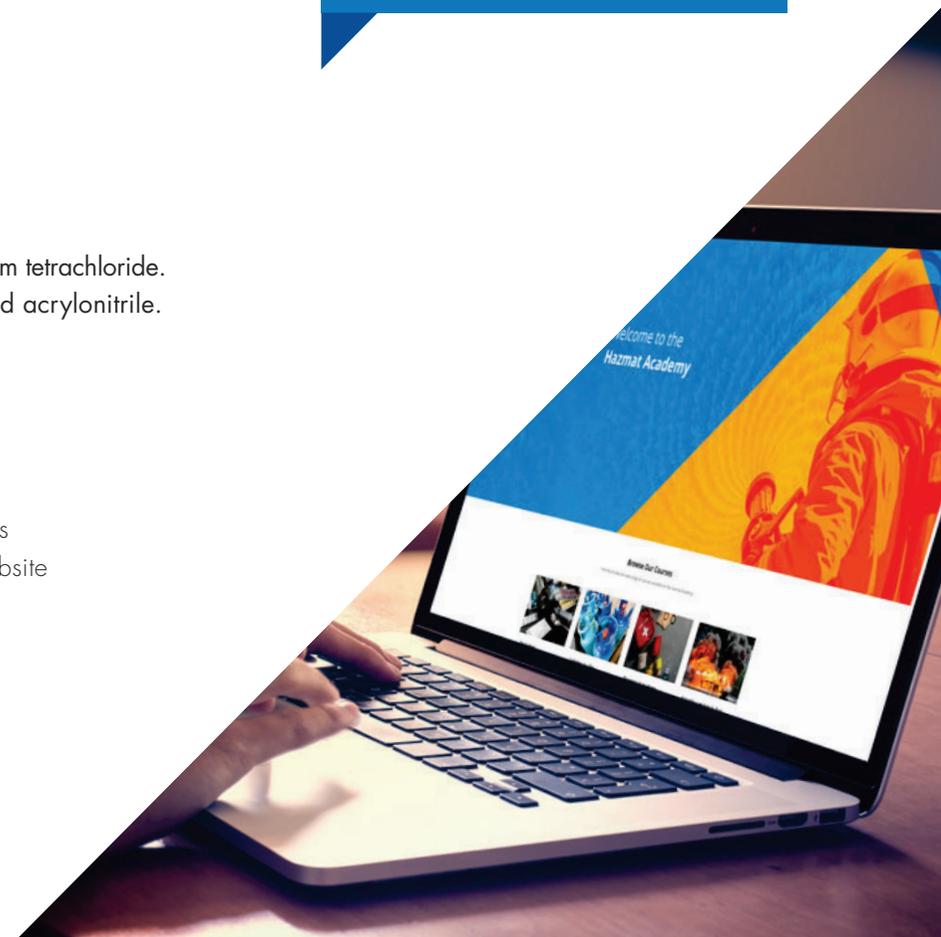
DISTANCE LEARNING MODULES

THE CURRENT CURRICULUM OF HAZMAT ACADEMY DISTANCE LEARNING MODULES INCLUDES:

- ◆ Chemistry – properties and trends.
- ◆ Illegal drug laboratories.
- ◆ Waste fires.
- ◆ Batteries.
- ◆ Explosives.
- ◆ Cylinders in a fire.
- ◆ Hydrogen fluoride.
- ◆ Chemical fatalities.
- ◆ Cleaning products.
- ◆ Mercury spillages.
- ◆ Pool chemicals.
- ◆ Asbestos.
- ◆ Refrigerant gases.
- ◆ Lithium battery chemistry and hazards.
- ◆ High-risk chemicals – bromine and titanium tetrachloride.
- ◆ High-risk chemicals – ethylene oxide and acrylonitrile.
- ◆ Alternatively fuelled vehicles.
- ◆ Ammonium nitrate.
- ◆ Environmental protection.
- ◆ Chemdata®.

An overview for each of the above modules can be found on the Hazmat Academy website www.thehazmatacademy.co.uk

As with all training elements from the Hazmat Academy, these modules can be made bespoke or we can develop new modules in partnership with you to meet your organisation's requirements.



WHY SHOULD YOU CHOOSE NCEC FOR YOUR TRAINING NEEDS?

Since 1973, NCEC has worked with organisations around the world that are facing a range of complex, chemicals-related response risks and challenges.

As global chemical incident experts, our team of highly qualified, experienced chemists and hazmat specialists provides operational training and support to emergency services internationally. The emergency responders at NCEC provide chemical incident advice, guidance and operational assistance 24/7 and 365 days of the year. This is done via:

- Telephone support for incidents – giving prompt advice to help bring chemical incidents to a successful conclusion so protecting people, the environment, assets, reputation and legal responsibilities (PEARL).
- Chemdata® – an interactive chemical hazard database containing information on over 61,000 substances, and more than 180,000 different chemical names and synonyms.

This puts us in the best place to identify regional, national and international trends, and share that information with the hazmat community.



4,000

Incidents responded to by NCEC

8,000

Calls received

600+

Global companies we support.

Annually, our team responds to more than 4,000 incidents and receives over 8,000 calls. We support over 600 global companies, including international emergency services and 50% of the world's top 100 chemical manufacturers. This support is provided via our commercial services (HazmatSOS), UK Government schemes (Chemsafe) and international networks (for example, Intervention in Chemical transport Emergencies (ICE) and International Association of Fire and Rescue Services (CTIF)).

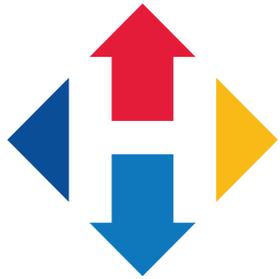


WHY SHOULD YOU CHOOSE NCEC FOR YOUR TRAINING NEEDS?

NCEC's training team includes sector-competent chemists and hazmat experts who have a background in emergency response. We also use international subject matter experts to assist with certain aspects of some courses (for example, environmental protection and non-technical skills) that are relevant to tactical advisers.

Our experts bring a wealth of hazmat knowledge and training delivery experience, having successfully designed and delivered hazmat training to over 20 different nationalities and over half of the UK fire and rescue services. This expertise and global perspective ensures that course content is up to date, and in line with industry best practice and local operational guidance, alongside international thinking, underpinned by our expert's comprehension of science.

Our experience, combined with the Hazmat Academy's large range of off-the-shelf and bespoke courses, means we provide best-in-class response training. This enables Category 1 emergency service staff and industry responders to develop their technical knowledge and tactical skills to keep themselves safe, while protecting people, the environment, assets, reputation and legal responsibilities (PEARL). Both types of course are suitable for all Category 1 emergency services and anyone in the public or private sector who may have to respond to an emergency involving hazardous materials.



**HAZMAT
ACADEMY**

The world of hazardous materials can be complex. We aim to provide training in a way that responders understand and that provides them with the practical support they need. Our training courses are designed to enable a responder's continuous development and provide a strong foundation to their organisation's operational response.

THE SOLUTION TO ALL YOUR HAZMAT AND RESPONSE TRAINING NEEDS

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