



CBRN
TRAINING PROGRAM
2018-2019

Welcome CBRN First Responders,

On behalf of the Qatar CBRN Academy I would like to present to you the training program of the Academy for the period 2018-2019. We tried to tailor the various courses to suit your needs and expectations. We are very well aware of existing gaps in the area of CBRN training and we tried to fill most of them based on our expertise and experience but also by collaborating with other international experts in order to provide a complete spectrum of specialized knowledge delivered here in Qatar. The latter is the main component of the autonomy target of Academy itself. You do not have to travel abroad to get this knowledge with the only exception the Live Agent Training that for the time being will be conducted in Europe. In the few coming years, this ultimate training will also be able to be delivered in Qatar.

Courses will be delivered in English with simultaneous translation to Arabic. But we expect in a year or two to deliver all courses in Arabic to make them more palatable and promote class interaction with our experts.

Common training background of all involved CBRN stakeholders will also promote interoperability and enhance compatibility of specialized equipment and protocols. If by any chance, our course menu does not fulfill your needs please contact us to discuss together your training needs and construct your own individual CBRN course.

Also keep in mind that Academy's experts can assist you in the selection of CBRN equipment and the design of CBRN emergency response plans or review of existing ones.

Welcome to Qatar CBRN Academy and we are expecting to share our expertise with you and learn from you because knowledge is an interactive life long experience!



The Director of Operations & Training

Brigadier General (ret.) Ioannis Galatas, MD, MSc, MC (Army)

CBRN Courses' list

FC: course also available for female attendees only. If not FC specified, it means that attendees of both sexes can attend.

CBRN Basic Training (5 days)

FC

Description

This is an introductory course providing an overview of chemical warfare agents, toxic industrial chemicals, bioterrorism agents, radiological threats (with and without explosives) and nuclear weapons. In addition, basic principles of field CBRN triage, decontamination, and first aids will be provided along with introduction to the Chemical and Biological Weapons Conventions and the Organization for the Prohibition of Chemical Weapons (OPCW). Basic principles related to personal protective equipment, sampling and detection equipment will be provided.

Prerequisite

None

Topics

- Chemical warfare agents (CWAs)
- Toxic Industrial Chemicals (TICs)
- Chemical Weapons Convention (CWC) and OPCW
- Biological Warfare Agents (BWAs)
- Threats from dual bio-technologies
- Radiological Dispersal/Emitting Devices (RDD/REDS)
- Radiological accidents
- Nuclear weapons (uses; accidents)
- Effects of CBRN agent on human body
- CBRN field triage and decontamination
- First Aids in a contaminated environment
- Personal & collective protection equipment & usage
- Update on CBRN detection technologies
- Health sector CBRN preparedness and response

Audience

- ✓ Ordinary first responders (police; fire service; ambulance crews)
- ✓ Hospitals emergency departments' personnel
- ✓ Hospitals' medical and nursing personnel (all specialties – other than ED)
- ✓ Public Health officials
- ✓ Civil Defense officials
- ✓ Crisis management stakeholders' personnel
- ✓ Critical infrastructure security personnel (airports; ports; mass transportation hubs and means; mega events' organizers; mosques; mega shopping malls; luxury hotels and resorts)
- ✓ Military emergency response personnel (medical)

Requirements

None.

NOTE: This course should be completed **BEFORE ANY** request for another course is applied.

Awards/Certification

Certificate of Attendance

Radiation Safety Awareness (4 days)**LC****Description**

This classroom course familiarises participants with the different types of radiation, detection principles, and protective measures and strategies.

Prerequisite

None

Topics

- Types of radiation
- Detection technologies
- Protective measures
- Protective equipment
- Decontamination principles
- Scenario-based tabletop exercise

Audience

- CBRN First Responders (police; fire service; ambulance crews; ED and Nuclear Medicine personnel)
- Public Health personnel
- Civil Protection personnel
- Coronary Service personnel
- Oil/gas personnel
- Cargo companies (air; sea; land)

Requirements

None

Awards/Certification

Certificate of Attendance



Radiation Safety Officer (5 days)

Description

This course is addressed to students or professionals working with radioactive materials or managing nuclear activities in industry and requiring insight in fundamental and practical aspects of radiological protection. It is designed to smooth out the difficulties inherent in scientific discourse while retaining the necessary rigor. Each chapter of the course presents the main concepts to know and is accompanied by illustrations and application in order to immediately assimilate the treated notions.

Prerequisite

Basic CBRN course

Topics

- Radiation concept
- Radiation Units and Quantities
- Health Effects of Radiation Exposure
- Radiation Protection Principles
- Work space monitoring
- Individual monitoring
- Classification of area and Supervision
- Transport of radioactive materials
- Uses of Ionizing radiation
- Legislation (local and international)
- ✗ ● Nuclear Gauges is not included , but the centers provide a complete training of 4 days for Nuclear Gauges
- Well Logging Techniques
- Pertinent Radiation Protection Aspects in Well Logging
- Emergency Plan and Preparedness
- Learning from Accident Case Histories
- Tabletop scenario-based exercises

Audience

- Oil/gas field personnel
- Civil Protection officers
- Public Health officers
- Hospital Nuclear Medicine personnel

Requirements

None

Awards/Certification

Certificate of Attendance

Another certificate generated after the trainee pass successfully an exam organized by MOE



NORM Naturally Occurring Radioactive Material Training Course (4 days)

Description

The course is designed for personnel who work in areas where NORM may be encountered. It provides the detailed knowledge and practical abilities to implement and monitor a NORM Radiation Protection Program. In addition, it proposes all aspects of NORM Radiation Protection and NORM waste management programs and addresses potential problems and solutions.

Prerequisite

None

Topics

- Useful definitions and Background
- Dose Calculation & Limits for NORM Radiation
- NORM Metrology
- NORM in Industry
- Regulation Issues
- Shipping NORM and TENORM
- The NORM/TENORM Radiation Safety Officer
- Tabletop scenario-based exercises

Audience

Personnel working at the following types of sites:

- Water and waste treatment facilities
- Sites drilling waste, oil & gas pipelines
- Natural gas and propane processing facilities
- Sites processing thorium, uranium or radium ore
- Facilities handling radium illuminated instruments
- Radon in buildings
- Disposal or Recycling facilities

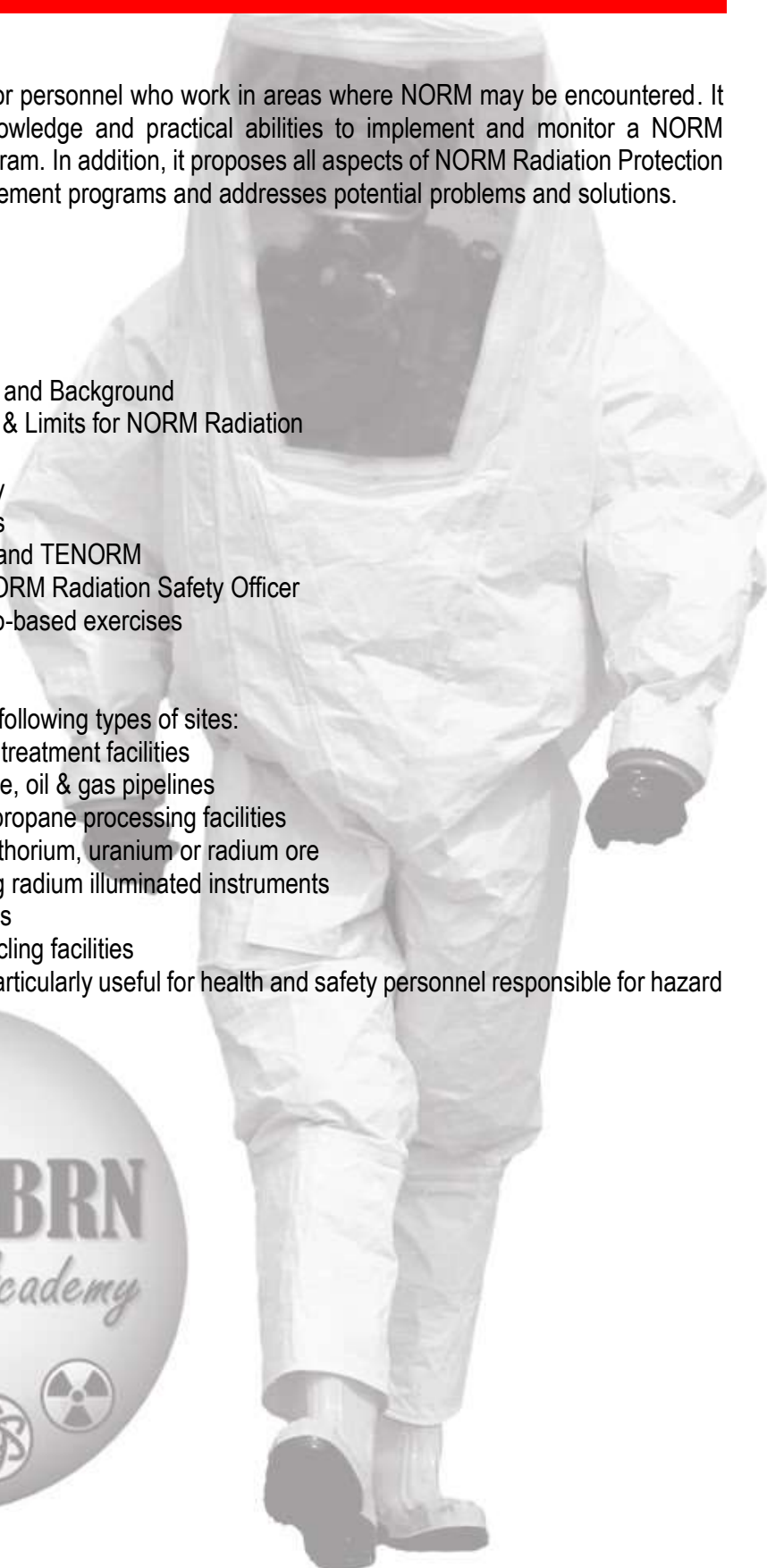
The course can also be particularly useful for health and safety personnel responsible for hazard awareness.

Requirements

None

Awards/Certification

Certificate of Attendance



Chemical Safety Awareness (4 days)**Description**

This course familiarises participants with the different types of chemical agents, detection principles, and protective measures

Prerequisite

None

Topics

- Types of chemical agents
- Medical signs and symptoms
- Detection technologies
- Protective measures
- Protective equipment
- Decontamination principles

Audience

- CBRN First Responders (police; fire service; ambulance crews; ED and Nuclear Medicine personnel)
- Public Health personnel
- Civil Protection personnel
- Coronary Service personnel
- Oil/gas personnel
- Cargo companies (air; sea; land)

Requirements

None

Awards/Certification

Certificate of Attendance



Live Agent CBR devise investigation (5 days)

In collaboration with HotZone Solutions (Europe) at VVU/CZ Vyškov Field Live Chemical Agent Training Facility/CZ

Description

The scope of this course is to provide EOD/IED qualified first responders who may be involved in a response to a possible criminal or terrorist activity involving CBRN devices with the skills to analyse, plan and implement an investigation of those IEDs in a potential hot zone.

Prerequisite

Basic CBRN course
Live Agent Training CWA Individual Level

Topics

- Analyse a CBR IED incident to determine the magnitude of the problem in terms of outcomes
- Properties of chemical agents
- Identification of the signs and symptoms of exposure to chemical agent
- Prediction models and methods for determining the dispersion of CBR Agents
- Plan a response by the identification and preparation of the relevant equipment for use within the hot zone
- Implement a planned response by using the relevant equipment to perform an investigation using pulsed X-rays inside the hot zone

Audience

- Police EOD personnel
- Military EOD personnel

Requirements

- ✓ Medical clearance from employer to work in personal protective equipment
- ✓ It is highly advisable to use own PPEs to enhance confidence level of users

Awards/Certification

Certificate of Attendance



CBRN Detection (2 days)**Description**

This course covers detection technologies and systems associated with chemical, biological, radiological, nuclear and explosive agents. Deep knowledge of pros and cons of each available technology will help in deciding the combinations required in order to achieve reliable results under various operational conditions and settings.

Prerequisite

Basic CBRN course

Topics

- Current detection capabilities and limitations
- Types of chemical agent detection instruments
- Biological agent detection instruments and processes
- Radiological agent detection instruments
- Explosive detection instruments and processes
- Emerging detection technologies
- Detection exercises with simulants (where applicable)

Audience

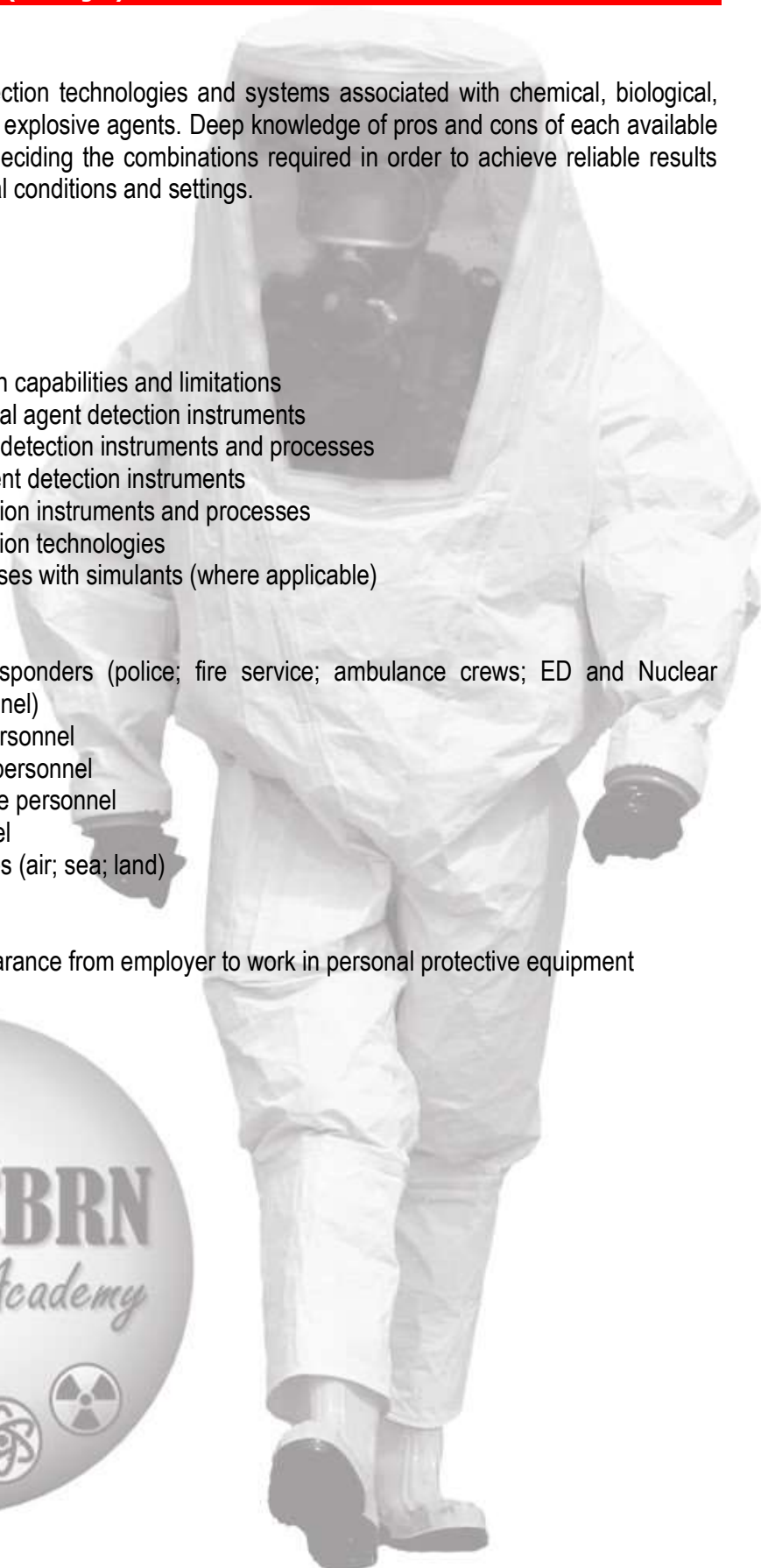
- CBRN First Responders (police; fire service; ambulance crews; ED and Nuclear Medicine personnel)
- Public Health personnel
- Civil Protection personnel
- Coronary Service personnel
- Oil/gas personnel
- Cargo companies (air; sea; land)

Requirements

OPTIONAL: Medical clearance from employer to work in personal protective equipment

Awards/Certification

Certificate of Attendance



Sampling and Identification of BCR Agents (SIBCRA) (4 days)

This course will be conducted in Doha in collaboration with HotZone Solutions (Europe)

Description

The scope of this course is to provide first responders with the required competencies to investigate and collect samples of possible CBRN contamination in order to allow laboratories to conduct highly reliable scientific analysis of samples. This course is run in-line with the NATO SIBCRA standards.

Prerequisite

Basic CBRN course

Topics

- Properties of biological and chemical agents
- Signs and symptoms of exposure to biological and chemical agents
- Principles of respiratory protection against biological and chemical agents
- Principles of reconnaissance, detection and decontamination
- Decision processes for the team leader and the roles within the team
- The SIBCA sampling kit
- Sampling techniques and cross-contamination
- Limitations of personnel working in personal protective equipment (heat and cold stress)
- Packaging techniques/transport of samples/chain of custody
- Methods of analysis and interpretation of results
- Practical scenario based exercises Theory SIRA (Sampling and Identification of Radiological Agents)
- Properties of radiological agents and protection against their effects
- Signs and symptoms of exposure to radiological agents
- Principles of detection and decontamination
- Principles of respiratory protection against radiological agent
- Decision processes for the team leader and the roles within the team
- The SIRA sampling kit
- Search of radioactive sources, determining, and fencing off a contaminated area
- Sampling techniques to avoid cross-contamination
- Packaging techniques/transport of samples/chain of custody
- Methods of analysis and interpretation

Audience

- Civilian CSI personnel
- Military CSI personnel
- Fire service personnel

Requirements

Medical clearance from employer to work in personal protective equipment

Awards/Certification

Certificate of Attendance

CBRN Decontamination (3 days) (5 days)**FC****Description**

This course covers mass decontamination protocols, systems, and technologies associated with chemical, biological and radiological agents.

Prerequisite

Basic CBRN course

Topics

- Why female first responders in decontamination stations?
- Current decontamination capabilities
- Chemical agent decontamination technologies and limitations
- Biological agent decontamination technologies and processes
- Radiological agent decontamination technologies, process, residual contamination control
- Decontamination of wounded contaminated victims
- Emerging technologies
- Decontamination and the Sharia Law
- Tabletop scenario-based exercises

Audience

- CBRN First Responders (police; fire service; ambulance crews)
- Civil Defense officials
- Public Health officials
- Military CBRN officers

Requirements

None

NOTE: If practical training is required, trainees should deploy their own PPEs and decontamination equipment in order to enhance their dexterities and check their field protocols. If this is the case, the duration of the course will be extended to 5 days. Proof of good health status will be also required.

Awards/Certification

Certificate of Attendance



CBRN Decontamination of Special & Disabled Groups (3 days) FC

Description

During the mass decontamination process victims might belong to special or disabled groups that require special approach and techniques. The special group is composed of children (all ages), pregnant women, homeless, tourists, and the elderly. A disability is an impairment that may be cognitive, developmental, intellectual, mental, physical, sensory, or some combination of these. It substantially affects a person's life activities and may be present from birth or occur during a person's lifetime.

According to the World Health Organization, disabilities is an umbrella term, covering impairments, activity limitations, and participation restrictions. An impairment is a problem in body function or structure; an activity limitation is a difficulty encountered by an individual in executing a task or action; while a participation restriction is a problem experienced by an individual in involvement in life situations. Disability is thus not just a health problem. It is a complex phenomenon, reflecting the interaction between features of a person's body and features of the society in which he or she lives.

Usually during decontamination drills we assume that victims are all ambulatory and almost never we practice with people that are deaf or blind, on wheelchairs or with paraplegia or with chronic diseases etc. In a real incident it would be extremely difficult to effectively handle these casualties in the midst of a chaotic environment.

Prerequisite

Basic CBRN course

Topics

- Current decontamination capabilities
- Chemical agent decontamination technologies and limitations
- Biological agent decontamination technologies and processes
- Radiological agent decontamination technologies, process, residual contamination control
- Decontamination of wounded contaminated victims
- Emerging technologies
- Decontamination and the Sharia Law
- Visit to a special hospital department where disabled people are treated
- Visit to a maternity hospital to discuss with pregnant women about chemical antidotes, radiation peels, and decontamination issues along with their fears and reserves



Audience

- CBRN First Responders (police; fire service; ambulance crews)
- Civil Defense officials
- Public Health officials
- Military CBRN officers

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Requirements

None

Awards/Certification

Certificate of Attendance



CBRN decontamination of Service Animals

Description

Both police and the military but also certain disabled people use service dogs that might be exposed to CBRN agents together with their handlers or owners. Special decontamination protocols should be used but procedures should be practiced during peace time since in a chaotic real incident environment it would be difficult to have dogs properly behave and stand in line to be decontaminated.



This course is composed in collaboration with Qatari veterinarians and the University of Qatar.

NOTE: Due the very specialized content of this course it will be conducted only ONCE a year and only if adequate numbers of attendees is achieved. It can also be tailor-made for a specific organization of gov body.

Prerequisite

Basic CBRN course (for a better holistic understanding of the asymmetric threats as a whole)

Topics

- C tolerance of service animals
- B tolerance of service animals
- R tolerance of service animals
- Decontamination of service animals
- Decontamination of zoo animals

Audience

- Police K9 personnel (narcotics; EOD; guard)
- Military service dogs personnel (EOD; guard)
- Blind people (can attend the course with their dogs)
- Doha Zoo personnel

Requirements

None

Awards/Certification

Certificate of Attendance



CBRN Medical (3 days)**FC****Description**

This course is aiming to disseminate specialized knowledge to medical sector and public health personnel that will be involved in a real CBRN incident in urban environment.

Prerequisite

None – other than being a certified physician (other than ED), nurse, or medical technician

Topics

- Chemical warfare agents (CWAs)
- Toxic Industrial Chemicals (TICs)
- Chemical Weapons Convention (CWC) and OPCW
- Biological Warfare Agents (BWAs)
- Threats from dual bio-technologies
- Radiological Dispersal/Emitting Devices (RDD/REDS)
- Radiological accidents
- Nuclear weapons (uses; accidents)
- Effects of CBRN agent on human body
- CBRN field triage and decontamination
- First Aids in a contaminated environment
- Personal & collective protection equipment & usage
- Update on CBRN detection technologies
- Health sector CBRN preparedness and response

Audience

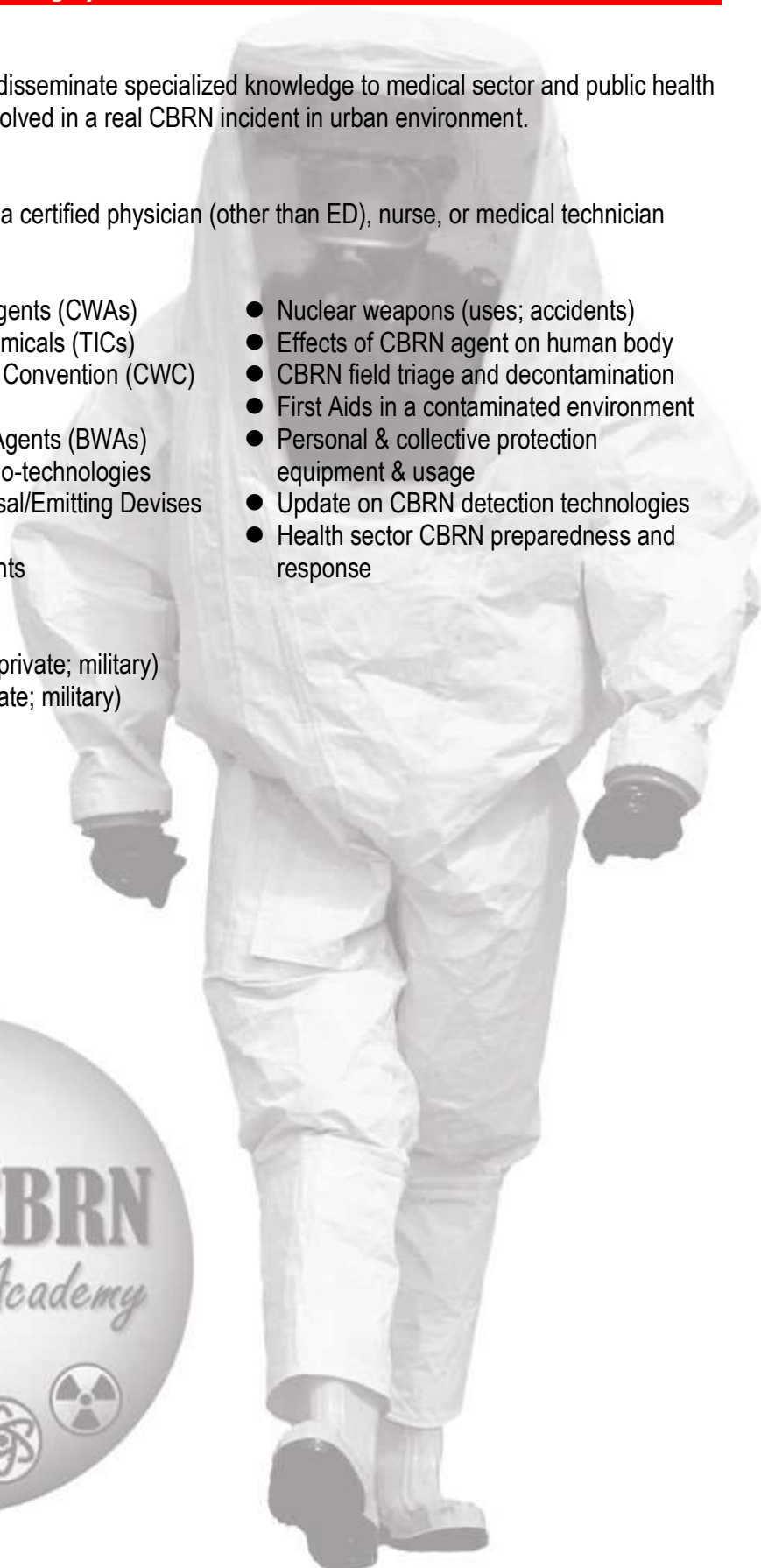
- Physicians (hospital; private; military)
- Nurses (hospital; private; military)
- Medical technicians

Requirements

None

Awards/Certification

Certificate of Attendance



Hospital CBRN Preparedness: From A to Z (10 days)**FC****Description**

This course will help hospital's Emergency Department personnel to establish its own CBRN defense lines outside the hospital's building in order to control incoming mass contaminated casualties and deliver them "clean" to indoors working personnel avoiding the secondary contamination of infrastructure and people. The first part of the course will cover the basic knowledge related to CBRN agents and their effects on human body while the second part will implement given knowledge in order to formulate a response emergency plan. Not all attendees might be suitable to attend both parts since the Part II is quite strenuous and physically demanding.

Prerequisite

None

Topics**Part I**

- Chemical warfare agents (CWAs)
- Toxic Industrial Chemicals (TICs)
- Chemical Weapons Convention (CWC) and OPCW
- Biological Warfare Agents (BWAs)
- Threats from dual bio-technologies
- Radiological Dispersal/Emitting Devices (RDD/REDS)
- Radiological accidents
- Nuclear weapons (uses; accidents)
- Effects of CBRN agent on human body
- CBRN field triage – various systems
- Selection of decontamination equipment and settings (mobile or fixed)
- First Aids in a contaminated environment
- Selection of personal protective equipment & usage (donning/doffing)
- Selection of CBRN detection technologies
- Hospital's CBRN preparedness and response
- Hospitalization of CBRN casualties
- Management of worried-well citizens following a CBRN incident

Part II

- Hands-on training (field drills and settings)
- Buddy system principles (PPE)
- Mass casualties' recording
- CBRN triage
- CBRN decontamination
- Decontamination of special groups and disabled casualties
- CBRN decontamination of first responders
- Verification of successful decontamination
- Working in adverse environmental conditions (dark room)
- Working with reduced available ED personnel
- Deploy CBRN defense setting during night
- Working together with fire service personnel (decontamination)
- Decontamination of armed police officers and K9/service dogs

Audience

Medical personnel of Emergency Departments (physicians; nurses; medical technicians)

Requirements

1. Only for those that will participate in the hands-on training of this course:
 - ✓ Proof of good medical condition
 - ✓ No rubber allergy history
 - ✓ No bronchial asthma history

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2. Practical training will be conducted with hospital's own personal protective equipment and decontamination equipment – this is the best procedure to acquire confidence on own equipment

Awards/Certification

Certificate of Attendance



CBRN for Freight and Mail Receivers (3 days)**LC****Description**

This training course provides students with the knowledge and skills necessary to implement safety procedures and develop response protocols for suspicious packages and mail, including “white powder” letters. Specifically for those persons with duties that include the receiving of packages (large and small) and mail.

Prerequisite

None – highly advised to complete the Basic CBRN course first in order to have a more conclusive overview of asymmetric threats

Topics

- Improvised explosive device recognition
- Suspicious package/ letter response procedures
- Overview of anthrax as an attack agent
- Anthrax exposure and treatment/ prophylaxis
- Toxins and CWAs used in letters or packages
- Personal protection and protective equipment
- Receiving area/mail room equipment
- Safety equipment
- Field detection equipment
- Case studies
- Scenario-based tabletop exercise

Audience

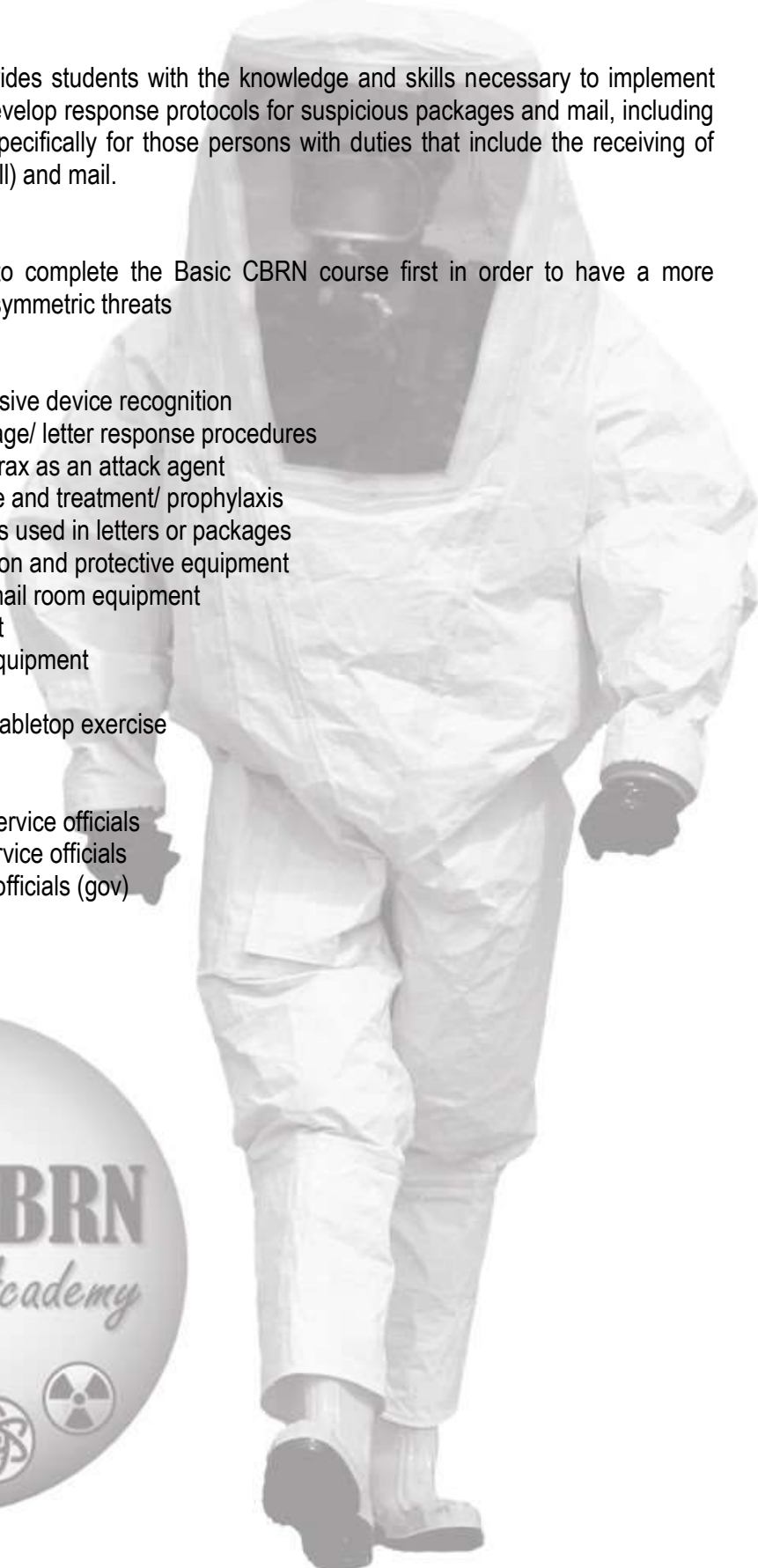
- National postal service officials
- Private postal service officials
- Security service officials (gov)

Requirements

None

Awards/Certification

Certificate of Attendance



CBRN for Mass Gathering Events (4 days)**Description**

This advanced level training is appropriate for command level responders. The scope of this course covers CBRNE threats for special events. Event types include festivals, concerts, carnivals, block parties, sporting events, marathons and protests.

Prerequisite

Basic CBRN course

Topics

- CBRNE threat analysis
- Planning and research for events
- Developing maintenance of traffic plans
- Special event liability
- Conducting an event threat and vulnerability analysis
- Public safety
- Neighbourhood/community support
- Event staffing levels
- Protestor issues
- Incident command system
- Entry screening
- Population CBRN awareness
- Tabletop scenario-based exercises

Audience

- Mega events' organizers (i.e. FIFA World Cup 2022)
- Civil Defense officials
- Public Health officials
- Medical section officials (hospitals)
- Sports stadiums security officers

Requirements

None

Awards/Certification

Certificate of Attendance



CBRN for Critical Infrastructure (5 days)

Description

This course aims to inspire “CBRN defense culture” to senior level officials working in critical infrastructure environments.

Critical infrastructure is a term used by governments to describe assets that are essential for the functioning of a society and economy – the infrastructure. Most commonly associated with the term are facilities for:

- Shelter; heating (e.g. natural gas, fuel oil, district heating);
- Agriculture, food production and distribution;
- Water supply (drinking water, waste water/sewage, stemming of surface water (e.g. dikes and sluices));
- Public health (hospitals, ambulances);
- Transportation systems (fuel supply, railway network, airports, harbours, inland shipping);
- Security services (police, military).
- Electricity generation, transmission and distribution; (e.g. natural gas, fuel oil, coal, nuclear power). Renewable energy, which are naturally replenished on a human timescale, such as sunlight, wind, rain, tides, waves, and geothermal heat.
- Telecommunication; coordination for successful operations
- Economic sector; goods and services and financial services (banking, clearing);

Prerequisite

None

Topics

- The properties and effects of CWAT/ICs, biological and radiological agents
- Categories of CBRNE devices
- The handling of dangerous materials
- The different classes of CBRNE materials and identify differences in their properties
- Recognition of the first effects of exposure to CBRNE materials through physical signs and symptoms
- The typical behaviour of people who may be carrying CBRNE material or potential CBRNE devices
- The basis of detection and screening of CBRNE materials and the identification using both fixed and portable detection and screening systems
- Self-protection and the protection of those in the immediate vicinity of a CBRNE device
- The basis of personal protective equipment, decontamination, and individual protection procedures
- Theory of decontamination and application of selected decontamination procedures
- Definition and marking of an initial hazardous CBR area
- CBR hazard area, pre and post blast
- CBR detection employing available equipment as user, pre and post blast
- National and international rules and regulations
- Tabletop scenario-based exercises

Audience

- Critical infrastructure managers and senior security officials (see the description of the course)
- Senior CBRN First Responders (police; fire service; senior ambulance crews)
- Civil Defense officers

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Requirements

None

Awards/Certification

Certificate of Attendance



Live Agent Training CWA (duration of course is tailor-made)

Live Agent Training (LAT) will be conducted in Europe with the collaboration of HotZone Solution (HZS)

Description

LAT with real chemical warfare agents was very much the beginning of HZS training capabilities, it still remains today as the very core of our training operations. It sets us apart from other CBRN training providers and has grown to include the areas of live pathogens (non-aerosolised) and radiological emitters (open and closed). Our LAT can also include toxic materials found in the environment as a result of accidents, natural disasters, misuse, criminal activities or as remnants of war.



LAT can be conducted on either an individual or collective basis following our standard course objectives or tailored to meet your own. As part of a wider training strategy, LAT is generally regarded as the only way to fully prepare personnel for operations, stress levels, decision-making capabilities and work rates all show improvement after the completion of Live Agent Training. Accepted Occupational Exposure Limits (OEL's) provide the basis of our safety system. This is applied in such a way that at 1 metre from the contaminated surface the concentration of CW agent (airborne) is less than a Short Term Exposure Level (STEL) for the most volatile agents. Actual vapour levels have been confirmed through air sampling and analysis campaigns conducted seasonally to take into account environmental variations. In addition, we always control the what, where and how much therefore allowing us to fully manage the risks. In combination with highly effective protective clothing and respirators these steps form the essential elements of our safety strategy.

Venue

The Hotzone Solutions Training Centre Belgium (HZSTC) in Belgium offers a wide range of courses from the HZS Training Catalogue, which can be either run as listed or adapted to suit any specific requirements of the participants. This facility has the capability of conducting large or small training courses focusing on CBRNE and has a ready supply of

Qatar CBRN Academy Training Courses 2018-2019

protection, detection and decontamination equipment on-hand, if required for training courses. Any training conducted at the facility utilises the full range of HZS simulants.

The CBRNE Training Centre is equipped and staffed with a view to provide basic to advanced courses (including academic) for professionals at all levels, belonging to various first responders groups such as police, fire-fighters, emergency medical services, military personnel, EOD experts, and other groups.

The infrastructure allows not only for individual training, but also for scenario-driven training, including illicit laboratories, mailrooms, shops, and many more. The HZSTC occupies an area of 8,200 m² including a large open outdoor training area, multimedia training rooms, and a fully equipped conference room with a seating capacity of up to 220 people.

This facility also hosts the International CBRNE Institute (ICI), an International Non-Profit Organisation.

LAT can also be conducted in the following venues:

VINČA INSTITUTE OF NUCLEAR SCIENCES, BELGRADE, SERBIA

Located on the outskirts of Belgrade 'Vinča' is a governmental organisation that specialises in physics, chemistry, biology, power engineering and technology, radiation and environmental protection, accelerator science, and materials science. Through cooperation with Vinča Hotzone Solutions is able to conduct CBRNE training and testing with live agents, in both the outside and inside environment using purpose built facilities.

VYŠKOV, CZECH REPUBLIC

Through a cooperative arrangement with the Military Research Institute (VVU), Hotzone Solutions instructors can deliver all courses using live Sarin (GB), VX, Sulphur Mustard (HD) and Lewisite (L), with site support provided by local personnel. Located near Vyškov approximately 220 kilometres from Prague in the Czech Republic, VVU provides access to a world class Field Live Chemical Agent Testing and Training Facility (FLCATF) built on the international CBRN reputation of the Czech Republic.

SÚJCHBO, CZECH REPUBLIC

Through a cooperative arrangement with the National Institute for Nuclear, Chemical and Biological Protection (Sújchbo v.v.i.), Hotzone Solutions instructors are able to offer modern lecture theatres and exercise facilities designed for the safe and effective use of live agents. Located near Přebor, approximately 60 kilometres from Prague, the Sújchbo is primarily involved in applied research and the development of practical tools for radiological protection and for protection against chemical and biological weapons.

Prerequisite

1. One of the following:
 - ✓ CBRN Basic Training certificate
 - ✓ CBRN Medical certificate
 - ✓ Hospital CBRN Preparedness certificate
2. All trainees will be submitted to medical lab tests before and after specialized training in order to reassure that no accidental contamination took place.

Topics

Described in the introductory section

Qatar CBRN Academy Training Courses 2018-2019**Audience**

CBRN First Responders (police; fire service; ambulance crews; ED and Nuclear Medicine personnel)

Requirements

Training will be conducted with trainees' PPEs in order to enhance confidence on own specialized equipment. Organizations should have one training PPE set and two operational PPEs.

Awards/Certification

Certificate of Attendance



Qatar CBRN Academy Training Courses 2018-2019

Live Agent Training BWA (5 days)

Live Agent Training (LAT) will be conducted in Europe with the collaboration of HotZone Solution (HZS).

Description

This course enables trainees to detect, protect humans and critical infrastructure from biological agents and implement appropriate health and safety measures. The course will be delivered in SÚJCHBO, Czech Republic and will involve classroom and practical training (up to BioSafety Lab Level-3)

Prerequisite

One of the following:

- ✓ CBRN Basic Training certificate
- ✓ CBRN Medical certificate
- ✓ Hospital CBRN Preparedness certificate

Topics

- Establishing safety zones and safe distances
- Use of protective equipment (personal and collective)
- Provision of advice to local authorities
- National and international rules and regulations
- Practical principles of detection and protection

Audience

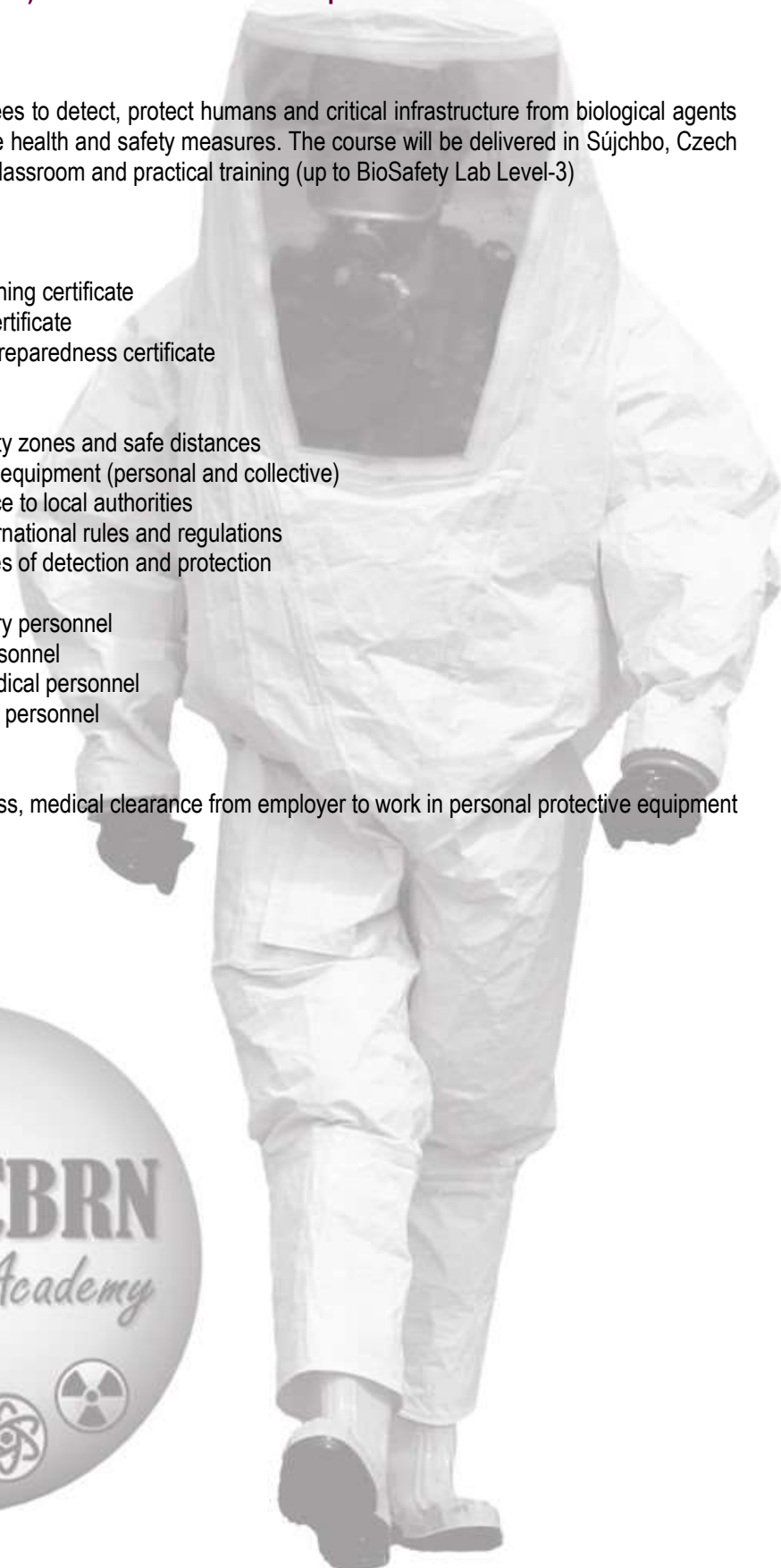
- Hospital laboratory personnel
- Public Health personnel
- Civil Defense medical personnel
- Coronary Service personnel

Requirements

Biological Safety Awareness, medical clearance from employer to work in personal protective equipment

Awards/Certification

Certificate of Attendance



Live Agent Training R (5 days)

Live Agent Training (LAT) will be conducted in Europe with the collaboration of HotZone Solution (HZS)

Description

This course enables participants to detect radiological agents, as well as to protect humans and critical infrastructure from radiation emitting sources and implement appropriate health and safety measures. Through a cooperative arrangement with Seibersdorf Laboratories, Hotzone Solutions is able to offer a wide range of training courses in the fields of radiation protection, laser and optical radiation, electromagnetic fields as well as civil defence and disaster control. Seibersdorf is located 35 kilometres southeast of Vienna and hosts the Seibersdorf Academy, Austria's largest radiation training facility.

Training can also be conducted at the following venues:

ZWENTENDORF NUCLEAR POWER PLANT, ZWENTENDORF AND ERDONAU, AUSTRIA

Through a cooperative arrangement with the Austrian energy company EVN Group, Hotzone Solutions is able to provide training for security and operational staff at the Zwentendorf Nuclear Power Plant. This power plant was the first nuclear plant built in Austria, which was finished, but never operated. Construction of the plant began in April 1972, as a boiling-water reactor rated at 692 megawatts electric power output.

CHERNOBYL CENTER, UKRAINE

Hotzone Solutions provides realistic training in the Chernobyl Exclusion Zone for first responders, military personnel, security services, and all those who might potentially work in hazardous and radioactively contaminated environments in partnership with the Chernobyl Centre. This zone, established in 1986 days after the accident in Reactor 4 of the Chernobyl Nuclear Power plant (ChNPP), with a radius of 30 kilometres, offers a wide variety of training, testing and research possibilities. The radionuclides that can be found in the exclusion zone are mainly Cs137 (Caesium 137) and Sr90 (Strontium 90).

Prerequisite

One of the following:

- ✓ CBRN Basic Training certificate
- ✓ CBRN Medical certificate
- ✓ Hospital CBRN Preparedness certificate

Topics

- Practical principles of detection and protection
- Establishing safety zones and safe distances
- Use of protective equipment (personal and collective)
- Personal dosimetry
- Record keeping of exposure
- Provision of advice to local authorities
- National and international rules and regulations

Audience

- CBRN First Responders (police; fire service; ambulance crews; ED and Nuclear Medicine personnel)
- Public Health officials
- Civil Defense medical personnel

Requirements

Radiation Safety Awareness, medical clearance from employer to work in personal protective equipment

Awards/Certification

Certificate of Attendance

Live Agent Medical Responder (5 days)

The course will be conducted in Europe with the collaboration of HotZone Solutions (venue: VVU Vyškov Field Live Chemical Agent Training Facility, CZ)

Description

This course provides trained medical personnel with the knowledge, skills and abilities to analyse the medical risks at a CBRN or hazardous materials incident and to plan and implement procedures to respond to potential health impacts on response personnel in a pre-hospital setting. The course combines classroom and practical training.

Prerequisite

One of the following:

- ✓ CBRN Basic Training certificate
- ✓ CBRN Medical certificate
- ✓ Hospital CBRN Preparedness certificate
- ✓ Advanced Life Support (ALS) certificate

Topics

- Chemical, physical and toxicological properties of CBRN agents
- Identification of the signs and symptoms of exposure to CBRN materials, primarily chemical agents
- Prediction of the potential behaviour of chemical agents
- Planning the response by identifying the relevant equipment to support hot zone entries
- Health hazards and risks associated with hot zone activities, standard and non-standard decontamination materials
- Determination of hazard control zones
- Determine the equipment and resources required for a medical monitoring station
- Plan and implement a response to a medical emergency
- Decontamination methodologies and processes
- Establishing a medical monitoring station
- Determine the requirement for pre-entry and post-entry medical monitoring of personnel involved in hot zone entries

Requirements

- ✓ Medical clearance from employer to work in personal protective equipment
- ✓ It is highly advisable to use own PPE in training in order to enhance confidence on own specialized equipment

Awards/Certification

Certificate of Attendance



CBRN Forensics (5 days)

The course will be conducted in Europe with the collaboration of HotZone Solutions (venue: HZSTC, VVU Vyškov Field Live Chemical Agent Training Facility, CZ)

Description

This is a highly specialized course aiming to introduce CBRN threats to officers working in forensic departments. The main purpose is the preservation of the crime scene but this time in a potentially lethal environment for the investigators. This curriculum provides law enforcement, fire rescue, EMS, HAZMAT responders and other public safety officials with the training and skills necessary to detect the clandestine manufacture of chemical, biological, radiological, nuclear and explosive weapons of mass destruction.

Prerequisite

CBRN Basic Training certificate

Topics

- Principles of hot zone forensics
- Overview of CBRNE agent types, their symptoms and mechanism of entry
- Identification of precursor ingredient
- Identification of manufacturing equipment and processes
- Overview of specialised personal protection equipment and respiratory protection equipment
- Detection and monitoring techniques including searches, surveys, sampling, improvised explosive devices, and trap recognition and response
- Overview of clandestine CBR laboratories • Sample collection procedures
- Confined space procedures
- Forced air ventilation techniques

Audience

- Police Forensics' personnel
- CBRN/HAZMAT First Responders operating inside the Hot/Warm Zones

Requirements

None

This course can be delivered in addition to a LAT course where:

1. All participants should:
 - ✓ Provide proof of good physical condition
 - ✓ No rubber allergy history
 - ✓ No bronchial asthma history
2. It is highly advisable that all participant will use their own official CBRN equipment during the recertification process (drill)

Awards/Certification

Certificate of Attendance



Recertification Course (4 days)**FC****Description**

Recertification course aims to update first responders on issues related to CBRN threats' management. In most countries worldwide, recertification is required every 2 or 3 years. In that respect, the Academy decided to provide this course every two years but no later than 3 years. The first day will be dedicated to a thorough update on all major issues related to CBRN operations while the next 3 days will be dedicated to hand on training on various scenarios.

Prerequisite

One of the following:

- ✓ CBRN Basic Training certificate
- ✓ CBRN Medical certificate
- ✓ Hospital CBRN Preparedness certificate
- ✓ Live Agent Training certificate

Topics

- Update on CBRN threats
- Update on CBRN management
- Update on specialized CBRN equipment (PPE; detection; decontamination)
- Field scenarios (Days 2-3-4)

Audience

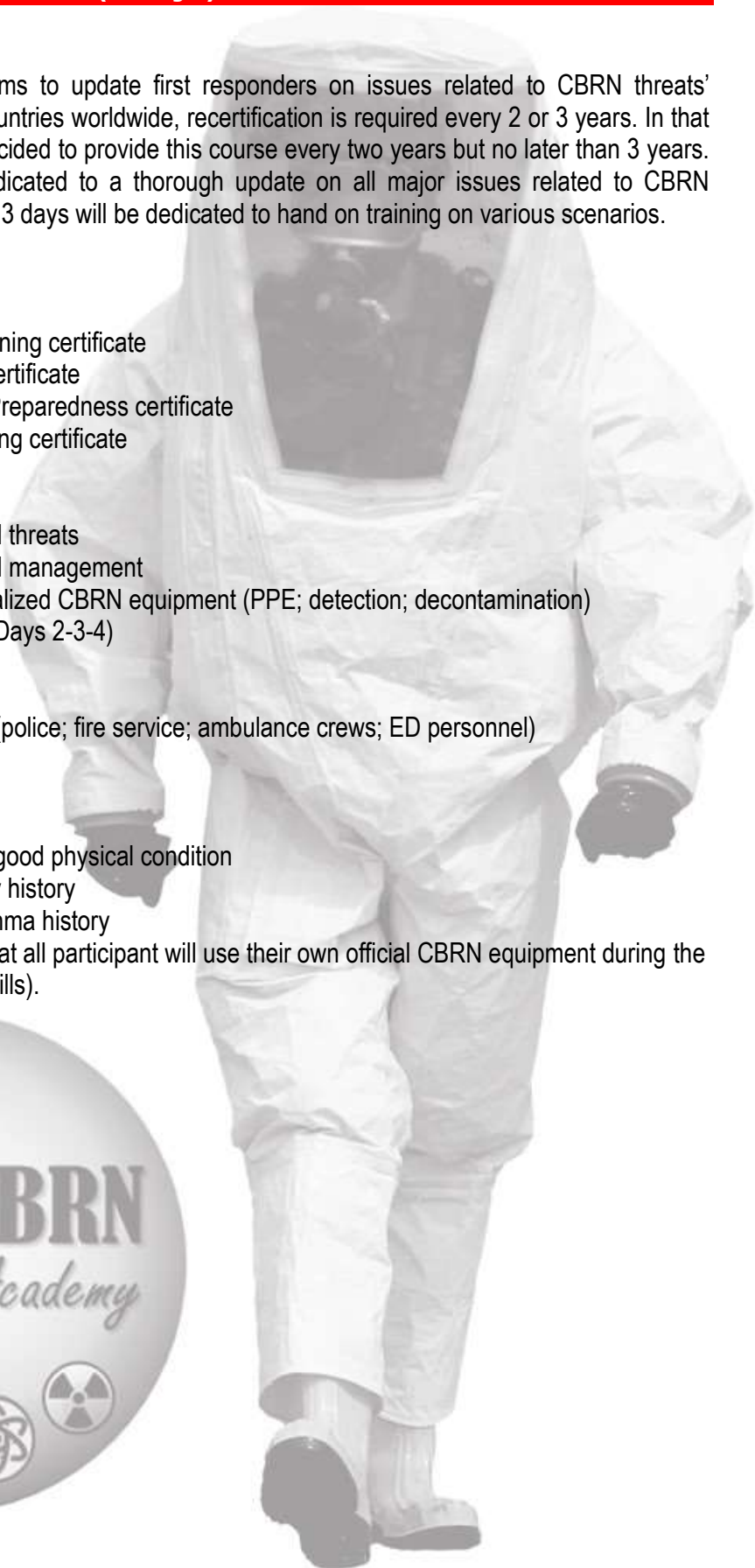
CBRN First Responders (police; fire service; ambulance crews; ED personnel)

Requirements

1. All participants should:
 - ✓ Provide proof of good physical condition
 - ✓ No rubber allergy history
 - ✓ No bronchial asthma history
2. It is highly advisable that all participant will use their own official CBRN equipment during the recertification process (drills).

Awards/Certification

Certificate of Attendance



CBRN VVIP/VIP Protection (2 days)**FC****Description**

This course aims to address the special needs of VVIP/VIPs and their families if they were caught in a real CBRN incident happened in Qatar or abroad. In contrast to other conventional threats where security teams are taking care of the incident and secure the safe escape of those protected by them, in a (mainly) CWA incident it is of utmost important the VVIP/VIP to be able to self-respond and don his/her gas mask very fast (on less than 11 sec). If security help them to don the specialized equipment they will die and they will compromise VVIP/VIP defense. If they don first in order to help their employers to don as well their employers will be dead beforehand (totally different situation than the well-known instruction given during traveling with airplane regarding oxygen masks in an emergency).

NOTE I: Training of VVIP/VIPs will take place at their home or other suitable place. It is highly desired, their chief of security to be present during their training sessions and train with them as well.

NOTE ii: Female members (and children) of VVIPs/VIPs will be trained (if requested) by Academy's female CBRN first responders under the supervision of the Director of Operations & Training

Prerequisite

None

Topics**Day I**

- Introduction to CBRN threats
- Effects of CBRN agents' on human body
- Shelter-at-home (shelter-in-place)
- Preventive medications for BR exposure

Day II

- Personal protective equipment, gas masks, filters and escape hoods
- Chemical antidotes usage
- Decontamination issues
- Practical field scenarios

Audience

- VVIPs (children included)
- VIPs (children included)
- Government officials

Requirements

1. It would be ideal that the hands-on training to be conducted with specialized equipment used by the VVIP/VIP clients in order to enhance confidence and promote acclimatization with gas masks/filters and escape hoods (but also to PPEs).



Qatar CBRN Academy Training Courses 2018-2019

2. Notification if there is a history of allergy to rubber or claustrophobic reactions or any other medical condition requiring daily medications. There is no need to reassure that medical personal data are highly confidential according to related legislation of the State of Qatar.

Awards/Certification

Certificate of Attendance



Population CBRN Awareness (1 day)**FC****Description**

This course aims to deliver simplified knowledge to various groups of concerned citizens of all ages. Topics will address CBRN agents' effects on people and how to counter exposure in a real incident.

NOTE: If desired, this course can be delivered at the working environment (i.e. in a school, a factory, a hotel etc.) providing there is the appropriate facility and audiovisual equipment for the presentations.

Fees: This course will be provided free of charge to schools (all levels), family members/housewives (if appropriate numbers of participants achieved) and disabled people organizations.

Prerequisite

None

Topics

- Introduction to CBRN threats
- Effects of CBRN agents' on human body
- Shelter-at-home (shelter-in-place)
- Preventive medications for BR exposure
- Chemical antidotes
- Decontamination issues

Audience

- Schools and teachers (nursery level; elementary level; high school level; university level)
- Industry workers and families
- Elderly houses' population and caregivers
- Disabled people and related organizations
- Foreign workers
- Housewives and maids
- Mass transportation workers
- Hotel personnel
- Food industry personnel
- Veterinary personnel
- Dentists and dental nurses
- Doha zoo personnel
- Shopping malls personnel

Requirements

None

Awards/Certification

Certificate of Attendance



**Contact us if you desire
to conduct a CBRN course**

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**If you want a tailor made CBRN course
for your special needs
contact us to work together
for the perfect solution!**

