INTERNATIONAL CENTRE FOR
CHEMICAL SAFETY AND SECURITY

Development, Conduct and Lessons-Learned

Table-Top Exercise (TTX)

Co-ordinated action in response to a chem-bio disaster or attack at chemical plant;

with international support

Our Profile

International Centre for Chemical Safety and Security was established in October 2011 as an independent non-profit organization based in Warsaw, Poland. ICCSS serves as a centre of excellence that supports the development of national and international networks of chemical safety and security officers from national agencies, international organizations, industries, and civil society. The ICCSS combines the efforts, technical resources and expertise of industry associations, international organizations, national agencies and NGOs. It is a multi-stakeholder forum for sharing knowledge and best practices, and for promoting public-private enterprises and modern management, in the following areas of chemical activity:

- Industry;
- transportation of chemicals;

- academic studies;
- scientific research;
- laboratory work.

The Centre seeks to provide continuity to international efforts in promoting chemical safety and security, and focuses on enhancing capabilities for research, development, storage, production and safe use of chemicals for peaceful purposes.

Why ICCSS?

The development, organization and conduct of the training courses in the area of chemical safety and security are the key activities of ICCSS. It includes development of curriculum, professional development of personnel and formulation of training programs and training methodologies based on national and international standards.

We are enhancing chemical safety and security on both, national and international levels. Our distinguished training courses in Poland are being held within the framework of the nation-wide programme: “Local Awareness and Responsibility in Chemical Safety and Security”, overall goal of which is to promote and enhance CSS on a local level. As a non-profit international entity we also help implementing regulations and best practices in many countries, inter alia, China, Kenya, Pakistan, Ukraine and Yemen.

We address our trainings to industry, academia, international institutions and local administration that wish to implement good standards and best practices in ensuring chemical safety and security, with small and medium enterprises being our priority

Our assets

Tailored trainings:

We approach each partner individually. Although we do have a detailed catalogue of courses, we prefer to interview the interested parties or our trainees first. This allows us to better identify their needs and requirements and in turn offer them training which is a perfect match.

Convergence to International Conventions:

ICCSS has expertise in the international frameworks including the Chemical Weapons Convention, Basel, Rotterdam and Stockholm Conventions and others, which encompass the use of chemicals on different levels and in different areas. We offer assistance in improving the current legal framework to meet international standards.

Software based solutions for management of chemicals:

A unique system collects digital versions of all data and documentation related to the safety of the plant and make it available to eligible and responsible persons in the plant as well as from the external authorities / organizations if needed and allowed, e.g. Fire Brigade, Office of Technical Inspection, Inspectorate for Environmental Protection. In addition to data collection, the system can be also used for monitoring and supervising tasks that are related to Accident Prevention Program and Safety Management System, e.g. maintenance activities, monitoring and diagnostic procedures, training of employees. The software is in line with the Seveso III Directive of the EU.

Access to international partners and their capacities:

Since its foundation in 2011, ICCSS has been active in promoting global initiatives in the area of chemical safety and security through organization of conferences. This allowed us to develop an extensive network of partners that share the common vision of the safer environment.

Management system solutions:

Apart from the chemical-related issues, we show a strong focus on effective management system. We offer help in implementing ISO 27001:2005 standard, which puts information security under strict management order. Moreover, together with AGH University of Technology, we are developing a unique OKIT methodology - a structured method for the development of security management system for an effective protection of information assets in industry and systems that are used to store, process and transmit sensitive information.

Relevance of the offer to International TrainingS:

The modules which would be of direct interest based on your email are **bolded below.** Please be aware that various aspects of security are directly related to appropriate safety standards, therefore we have also listed courses from Chemical Safety.

In terms of chemical security, as you can see below all topics may be relevant, depending on your preferences. Please also have in mind the software and management system solutions mentioned above, which directly impact the chemical security culture

Scenario

Table-Top Exercise (TTX)

Co-ordinated action in response to a man made or chem-bio disaster or attack at chemical plant with international participation

Warsaw, Poland

Introduction

This Table Top Exercise (TTX) aims to enhance national, local or industry chem-bio, environmental disaster response or management of terrorist attack oat chemical plant.

It is necessary to remember however that the field of this exercise is only one among the many where terrorism can and should be tackled. The ongoing efforts in the other areas like: education, industry protection, accident preparedness and victims counselling are equally important.

Core Objectives

- To support national chem-bio regulatory framework
- To support the development of local and national operational capabilities
- To enhance regional and trans-national cooperation

Detailed Objectives:

In the case of an act of terrorist nature against targets within chemical industry:

- To develop roles in responding to incidents where chemicals have been used as terrorists tools
- To develop organizational and legal stance
- To develop mode of operation
- To develop and promote international cooperation
    - To practice a cooperation between industrial and political institutions
    - To gain and share organizational experience
    - To practice co-operation with European Civil Protection Mechanism (UCPM) and/or European Program for Critical Infrastructure Protection

General plan

Task	Person in charge	*Till time "0"*
Identifying organizational unit and person in charge	ICCSS	*- 30 days*
Nominating exercise supervising team (ST)	ICCSS	*-28 days*
Introducing and brainstorming a scenario	ST	*-26 days*
Defining legal aspects	ST/LAO	*-20 days*
Preparing final version of scenario	ST	*-16 days*

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Nominating exercise moderators (EM) Head Moderator (HM) Exercise Participants	ST	*16 days*
Inviting guests participants	ICCSS	*-30 days*
Defining training topics	ST/HM	*-15 days*
Nominating instructors (IN)	ST	*-15 days*
Identifying trainees	ST	*-15 days*
Drafting detailed plan	ST/HM	*-12 days*
Logistics and support	LOG	*-12 days*
Training (if necessary)	IN	*-11 till -6 days*
Buffer time		*-5 till -3 days*
Rules, H&S,confidentiality	ICCSS	*-2 days*
Exercise	all	*Day 0*
Hot wash	all	*Day +1*
Reports, conclusions and lessons learnt	*TBD*	*Day +14*

1. **Preparation**

Stage I

a. Identifying organizational unit and person in charge ICCSS
b. Nominating exercise supervising team (ST) ICCSS
c. Introducing and brainstorming a scenario ST
d. Defining legal aspects ST/ICCSS
e. Preparing final version of scenario ST

Stage II

f. Nominating exercise moderators (EM)
Head Moderator (HM) and exercise participants ST

g. Inviting guests participants ICCSS
h. Defining training topics ST
i. Nominating instructors (IN) ST
j. Identifying trainees ST

k. Drafting detailed plan ST/HM

Logistics and support

l. Defining organizational and logistical details
m. Organizing logistical support team (LST)
n. Defining equipment, workspace and organizational needs

Explanations and training

o. Training (if necessary
p. Explaining general rules and scenario
q. Setting-up H&S component
r. Setting-up confidentiality component

2. Desk top exercise

The aims of the exercise

- Co-ordination and co-operation
- Crisis management
- Population protection
- Environment protection

Parties of the exercise

a. Exercise Supervising Team
b. Exercise Moderators
c. Exercise participants

National component

(i) Crisis management group
(ii) Chemical Disaster Response/ First Response Team
(iii) Regional/local administration
(iv) Plant site/company
(v) Sanitary/health authorities
(vi) Police

International component

(vii) OPCW, WHO, INTERPOL (dependent on final scenario)
- Deployment of small mobile team (QDOC p.6.1.2)

- Deployment of Investigation Team
    - Investigation sub-team (core)
    - Medical
    - Logistics
    - Communication
    - S&A?
    - Decon team?
    - Assistance co-ordination and assessment

(viii) EADRCC
(ix) EADRU
(x) Mobile environmental laboratory
(xi) Chemical Rescue Team
(xii) Medical Team
(xiii) First Response Groups

d. Observers

European Commission

Neighbouring countries

Regional/continental

UN

NGOs

CEFIC

Scenario

First release

An explosion was reported in the Walenia Nitro chemical plant located in an industrial site, north to Walburg town of population ca. 7000. The site belongs to Arkona, a global manufacturer of polymers and resins. First evidences indicate that explosion took place at an ammonium nitrate (NH_4NO_3) plant. The witnesses report that the blast was man-triggered. Since the site is involved in production of various chemicals, it is believed that the blast was done with an intention to harm local population.

The affected State officials indicated the neighbouring states and international organizations.

Once the scenario provides for release of chemical agents as chemical weapons and/or use of chemical warfare agents, the international organisations will be invited to consider material assistance in responding to the disaster and/or use of alleged use mechanism.

Second release

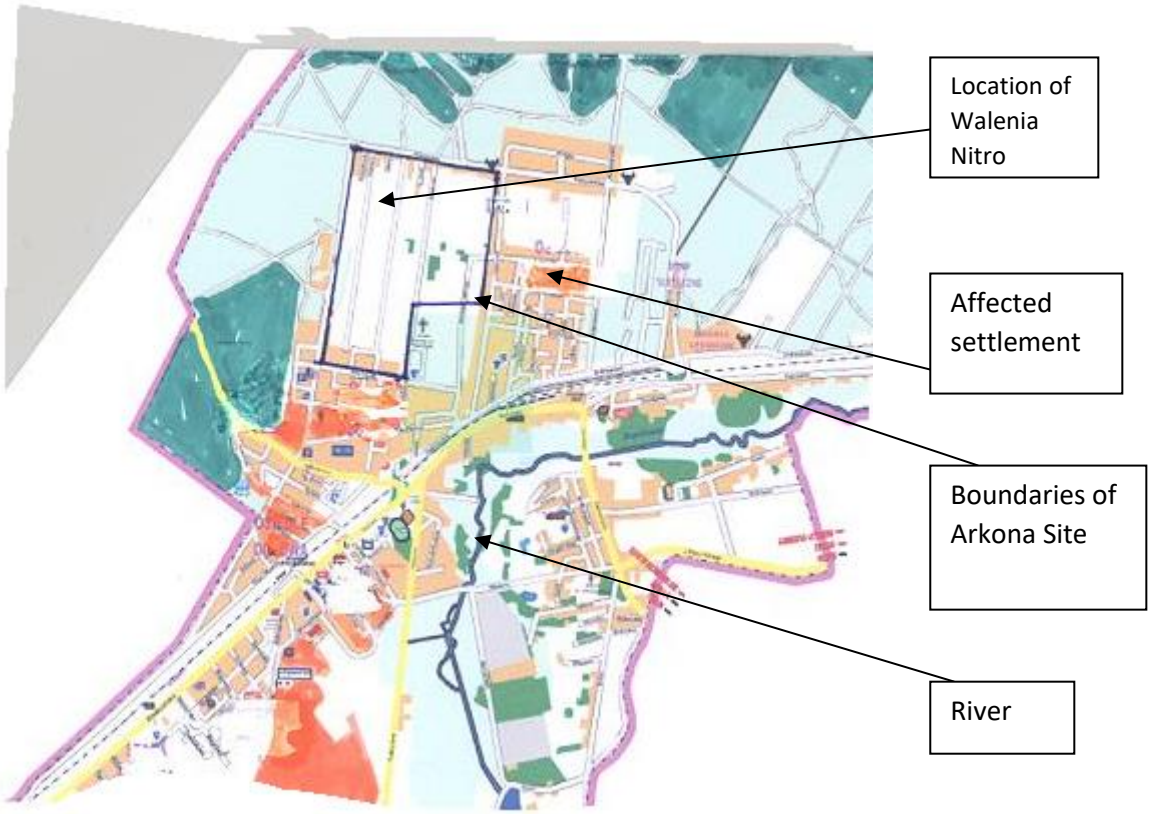
The blast demolished inhabited east part of the industrial part and sent debris towards the town. Weather reports show wind blowing direction SE towards already inhabited new settlement at the town suburbs and toxic cloud is most likely moving in that direction.

Further reports inform that blast affected the Toluene diisocyanate (TDI) plant located next to ammonium nitrate, causing possible leak of an intermediate: phosgene and its raw material carbon monoxide (CO) to atmosphere. Protective dikes of intermediate storage of TDI plant were damaged and some TDI as well as intermediate of the TDI process: 2-Nitrotoluene went to a sump. The sump is designed for draining rainwater only, without any retention volume so toxic release is flowing directly to a local river Wella.

The affected state begins emergency crisis operation, and requests assistance from international organisations, including the OPCW /on the basis on Art X p.8(1) in conjunction with art II p. 1(a).

The simultaneous requests are directed to EADRCC for command control and EADRU for material aid. It this situation DG of OPCW could initiate action to dispatch emergency assistance.

Map of Walburg



List of acronyms

ICCSS	International Centre for Chemical Safety and Security
ST	Exercise Supervising Team
LAO	Legal
HM	Head Moderator
EM	Exercise Moderators
IN	Instructors
UCPM	European Civil Protection Mechanism
EADRCC	Euro-Atlantic Disaster Response Co-ordination Centre EADRU Euro-Atlantic Disaster Response Units
NGO	Non-Governmental Organizations
CEFIC	European Chemical Industry Council
TDI	Toluene Di-isocyanate
CO	Carbon monoxide
DNT	Di-nitrotoluene

INTERNATIONAL CENTRE FOR CHEMICAL SAFETY AND SECURITY (ICCSS)

Working together to enhance chemical safety and security

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