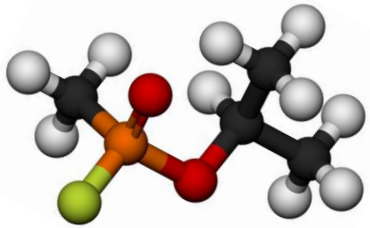
Monitoring and Verification Regime of the Chemical Weapons Convention

Jaroslava Křížková
State Office for Nuclear Safety

What is chemical weapon?

1.



Toxic chemicals and precursors

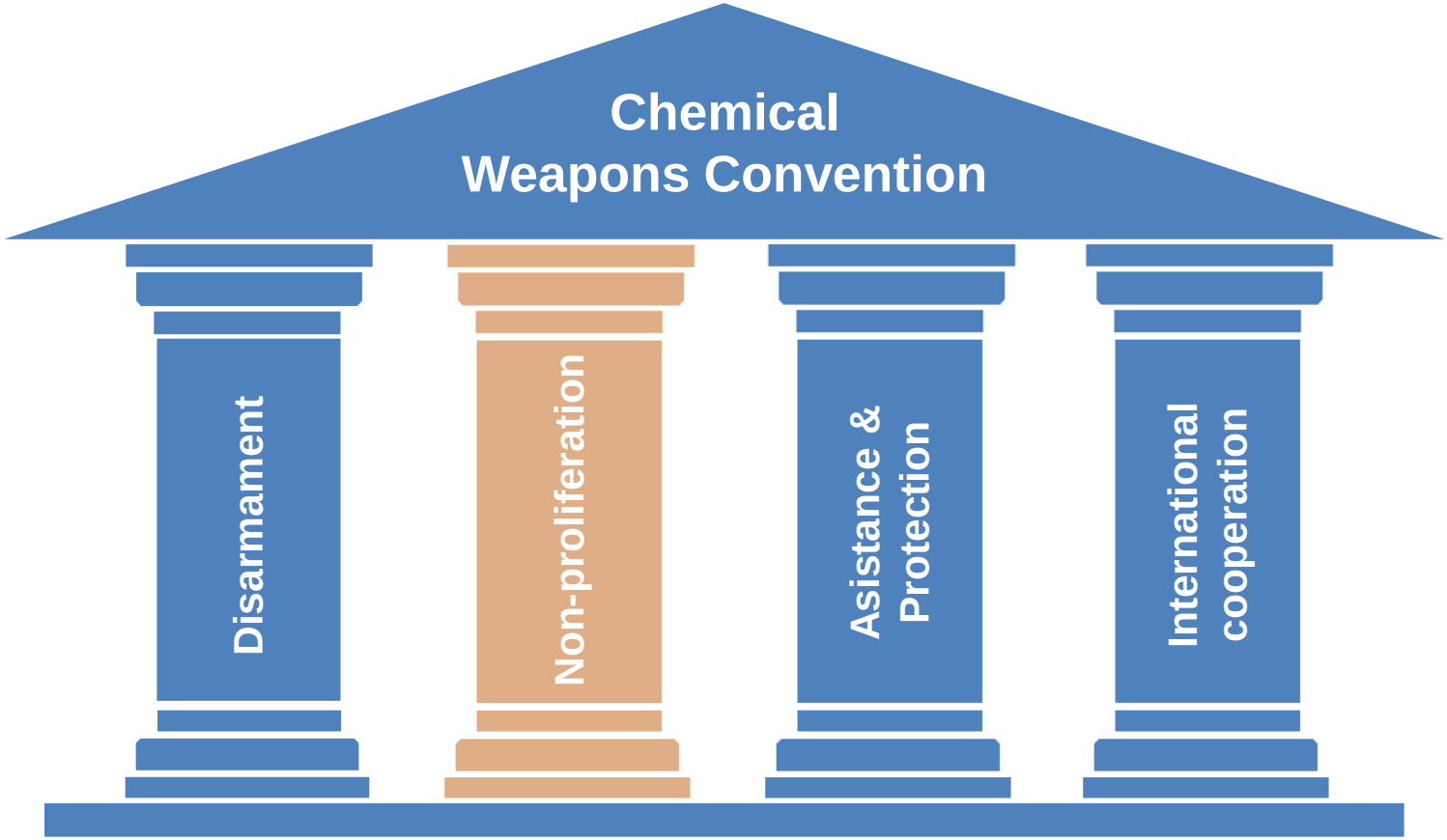
2.

Munitions and devices

3.

Equipment

Prohibition vs. Non-proliferation



How does it work?

OPCW

Legislation
Declarations to OPCW
Data collection + Evaluation
National inspections

Evaluation of SPs´ declarations
Inspections

CWC

Preamble and 24 articles

Annex on chemicals

- Schedule 1
- Schedule 2
- Schedule 3
- DOC/ PSF

Verification annex

Confidentiality annex

CSP decisions

Scheduled chemicals

Schedule	Type of chemical	Industrial use
1A	Very toxic with history of use as CW	None/Insignificant
1B	Key precursors	None/Insignificant
2A, 2A*	Toxic chemicals	Minor application, mostly captive production
2B	CW precursors	Significant industrial use
3A	Very toxic with history of use as CW	Very large commercial quantities
3B	Industrial chemicals, possible dual use	Very large commercial quantities

Dual use

One example:

Hydroden cyanide (Schedule 3A chemical)

Commercial application

Nylon stockings

CW

Tabun (S1A)

National level

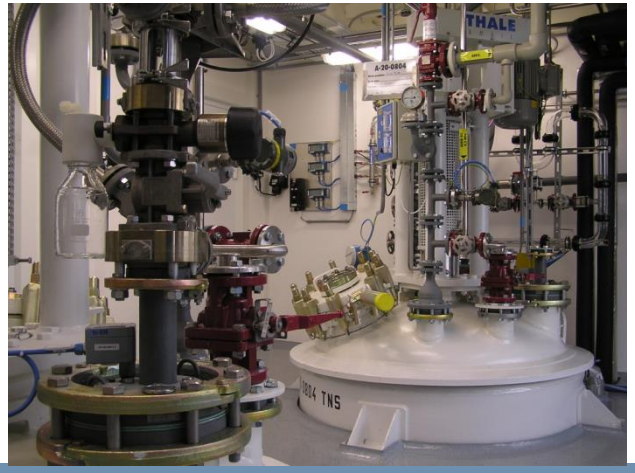
- Legislation – implementation of the CWC
  - Act no. 19/1997 Coll. and Decree no. 208/2008 Coll.
- National Authority – focal point
  - Ministry of Industry and Trade (1996 – 2000)
  - State Office for Nuclear Safety (since 2000)
- Data collection – declarations
  - Past and anticipated activities (depends on type of chemical)
  - Lower declaration thresholds then required by CWC
- Evaluation and declaration to OPCW
  - EDNA
  - SIX for transmission

National Inspections

Procedure stated in act no. 250/2012 Coll.

Why?

- To verify data from declarations
- To clarify all ambiguities
- To know actual situation at the plant site
- To stay in contact with responsible people at the plant site
- To prepare company for OPCW inspection



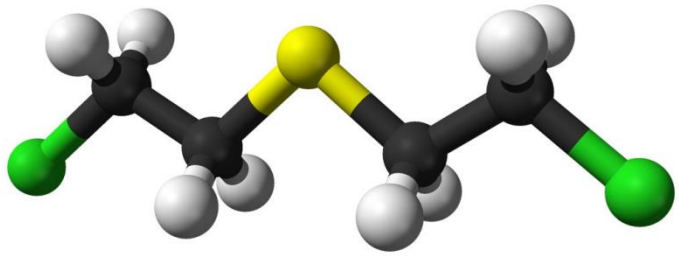
Schedule 1 chemicals

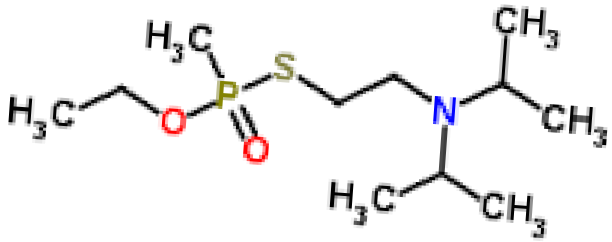
Why do they need them?

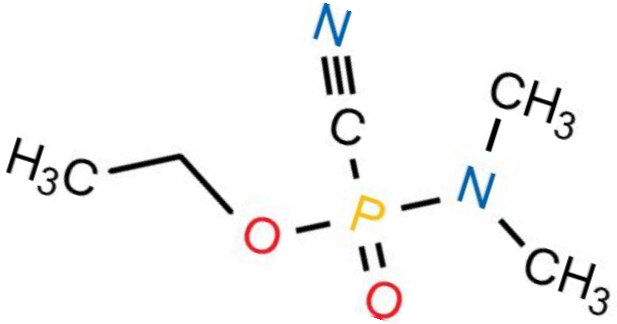
- Standards for detection
- Equipment testing
- R & D for protective purposes

Which sites?

- Military research institutions
- Fire and rescue service labs
- Academy od Sciences







Schedule 2 a 3 chemicals

All activities above the national declaration threshold are declarable and inspectable

- Production – only S3: fosgene, hydrogen cyanide, cyanogen chloride
- Export/Import – Trading companies – most traded scheduled chemical is TEA
- Processing – S2: Flame retardants in textile industry
  S3: Cosmetics, pharmaceutics, additives for concrete, plasticizers for rubber, pH modification
- Consumption – S3: production of DOC

DOC/PSF

Examples of declarable and inspectable activities :

- Processing of crude oil (MTBE)
- Production of organic cyanides,
- Processing of coal tar and crude benzole
- Production of monomers
- Production of formaldehyde and other precursors for resins,
- FAME production
- Production od soap by saponification
- Production of sulfonated derivatives of carboxylic acids and their salts

OPCW level

- Tools for identification of chemicals and declarations
  - Handbook on chemicals and databases
  - Declarations handbook
  - EDNA – software for declarations
  - SIX – secure transmission
- Evaluation
  - Consistency and correctness
  - Reconciliation letter
  - Transfer disrepancy letter

OPCW level

- Selection of sites for inspection
  - S1: risk to object and purpose of the CWC, characteristics of facility and type of activities, facility agreement previous findings, time from last inspection
  - S2: chemicals, characteristics of facility and type of activities
  - S3: algorithm based on declared data, geographical distribution + random selection
  - OCPF: algorithm based on declared data and geographical distribution

OPCW inspections

- Initial / routine
- Sampling and analysis
- Non-routine:
  - Challenge inspection (Article IX, VA part X)
  - Investigation of alleged use of CW (Article IX and X, VA part XI)
  - Fact finding mission
  - Technical assistance visit – upon SP request
  - Rapid Response and Assistance Mission

OPCW routine inspections

Notification sent to SP

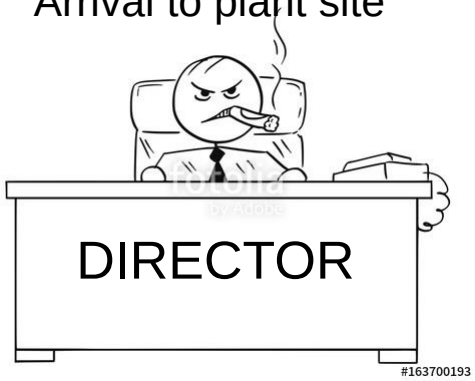
Arrange what is necessary

Point of entry procedure

Transport to plant site

OPCW routine inspections

Arrival to plant site

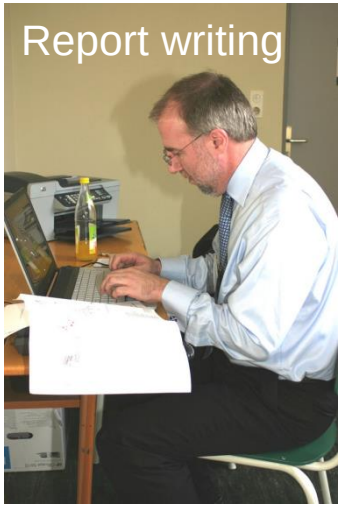


Pre inspection briefing

Site tour and physical inspecition

Records review

Report writing



Report signed

Departure

Thank you for your attention

Questions?

jaroslava.krizkova@sujb.cz
chemie@sujb.cz