

**UNECE Convention on the Transboundary  
Effects of Industrial Accidents**

**UNECE Convention on the Protection and Use of Transboundary  
Watercourses and International Lakes**

**17<sup>th</sup> meeting of the Joint ad hoc Expert Group on Water and Industrial Accidents and  
3<sup>rd</sup> meeting of the Expert Group on Fire-water Retention**

**JOINT MEETING OF THE UNECE  
JOINT AD HOC EXPERT GROUP ON WATER AND INDUSTRIAL ACCIDENTS  
AND THE EXPERT GROUP ON FIRE-WATER RETENTION**

6 September 2017  
Slubice, Poland

**Meeting Minutes**



UNECE 2017

## 1. Opening of the meeting

The meeting was chaired by Mr. Gerhard Winkelmann-Oei and Mr. Peter Kovacs, co-Chairs of the Joint Ad Hoc Expert Group on Water and Industrial Accidents (JEG) from the Industrial Accidents and Water Conventions respectively, who opened the meeting and welcomed the participants (see [annex I](#) for the list of participants).

## 2. Update and finalization of the draft UNECE Safety Guidelines and Good Practices for Fire-water Retention

Mr. Winkelmann-Oei summarized the feedback received on the draft *UNECE Safety Guidelines and Good Practices for Fire-water Retention* at the International Seminar on Fire-water Retention (Slubice, Poland, 5 September 2017). The participants discussed how to address the feedback received and provided further observations. The secretariat was asked to keep track of the points made and to circulate them, together with the list of responsibilities for updating the respective parts after the meeting (see [annex II](#)).

The following tentative time schedule was agreed for the finalization of the guidelines:

- End-Sep 2017 – Experts to include the changes discussed at the meeting into the parts they are responsible for (see [annex II](#)) and to send their updates parts to the secretariat
- Mid-Oct 2017 – Secretariat to circulate the updated version of the safety guidelines for a last review and final comments by the experts
- End-Oct 2017 – Circulation of the draft safety guidelines for comments to Focal Points of both Conventions, international organizations, industry and other partners
- Mid-Dec 2017 – Deadline for the provision of comments by Focal Points of both Conventions, international organizations, industry and other partners to the secretariat
- Early 2018 – Possible last meeting of the Expert Group on Fire-water Retention to address the comments and finalize the guidelines (to be confirmed in December 2017)

Following the elaboration of a final draft version of the safety guidelines in early 2018, the document would be submitted to the 13<sup>th</sup> meeting of the Working Group on Integrated Water Resource Management (Geneva, 29-30 May 2018). It is expected that the UNECE Safety Guidelines and Good Practices for Fire-water Retention be presented for endorsement by the 8<sup>th</sup> session of the meeting of the Parties to the Water Convention (MoP8) (Astana, 10-12 October 2018) and by the 10<sup>th</sup> meeting of the Conference of the Parties to the Industrial Accidents Convention (CoP10) (Geneva, 4-6 December 2018).

## 3. Follow-up activities on the safety of tailings management facilities

Mr. Winkelmann-Oei informed participants that the project on tailings safety in Ukraine (2016-2017) had been successfully finished. He also provided an update on planned follow-up projects on tailings safety in the UNECE region that could be financed by Germany:

- (a) A project between Armenia and Georgia in the Caucasus, led by the Armenian NGO EcoPeace (November 2017 to November 2019)
- (b) A pilot project in Serbia and Romania, under the leadership of the International Commission for the Protection of the Danube River (ICPDR) (mid-2018 to mid-2020)
- (c) A planned project on tailings safety in Kyrgyzstan (possibly 2019 to 2020)

The meeting participants welcomed the information provided and members of the Joint Expert Group expressed their interest to attend the practical training sessions planned in the projects.

#### **4. Discussion of other relevant topics**

##### **(a) 15<sup>th</sup> International Forum on Industrial Safety (St. Petersburg, 30 May-2 June 2017)**

Mr. P. Kovacs, supported by Ms. Kamke, reported about the holding of a special session on tailings and pipelines safety, held in the framework of the 15<sup>th</sup> International Forum on Industrial Safety (St. Petersburg, Russian Federation, 30 May-2 June 2017), organized by the GCE Group. He reported that the UNECE Safety Guidelines and Good Practices for Tailings Management Facilities (TMF) and for Pipelines were presented as well as lessons learned from past (transboundary) accidents and the TMF Methodology, developed in the tailings projects in Ukraine led by Germany. He stressed that positive feedback on the sessions was received and that the participation in the sessions was good (approx. 60 participants). Ms. Kamke informed the participants that Mr. Alexander Moskalenko, President of the GCE Group, much appreciated the participation of UNECE in the event and that he had expressed particular interest in applying the TMF Methodology for trainings in the Russian Federation.

##### **(b) Transboundary exercise and workshop on contingency planning in Hungary in 2018**

Mr. P. Kovacs, supported by his colleagues Mr. Szilcsanov and Mr. Pozsar from the National Directorate General for Disaster Management in Hungary, informed participants about the progress made with the preparations of the transboundary exercise on the Danube River. They reported that the exercise was planned for spring 2018 and that they were currently looking for a company at which the exercise could take place. Mr. P. Kovacs also reiterated the commitment to organize the transboundary exercise back-to-back with an international workshop on contingency planning, as previously discussed. More detailed information would be shared as soon as it would become available.

##### **(c) 20<sup>th</sup> anniversary of the Joint Expert Group in 2018**

The JEG proposed to celebrate its 20<sup>th</sup> anniversary in 2018 by, among others, the following:

- Organization of a side event at the Water Conventions' MoP8 and the Industrial Accidents Convention's CoP10, possibly with a birthday cake and the attendance of past JEG Chairs
- Development of a brochure/flyer/video on the JEG achievements. Mr. P. Kovacs agreed to investigate whether such could be produced by Hungary, in addition to a postcard on the Safety Guidelines and Good Practices for Fire-water Retention.

The JEG members agreed to further explore these ideas and to further discuss the celebration at its next meeting.

##### **(d) Next meeting of the Joint Expert Group**

Mr. Medetbek suggested that the next JEG meeting be held in Kyrgyzstan. Participants welcomed the readiness to host a future meeting of the JEG. For practical reasons and to take advantage of synergies with other meetings, it was agreed to hold the next JEG meeting back-to-back with the transboundary exercise in Hungary in spring 2018. JEG members stressed that it would be important to discuss ideas for the next workplan for the JEG at the upcoming meeting.

**5. Wrap-up and closure of the meeting over a working lunch**

The co-Chairs summarized the decisions taken at the meeting. They thanked the participants for their active discussions and the secretariat for the preparations before closing the meeting.

## Annex I – List of participants

No.	Country	Name, function and contact details
<b>Experts from the Joint Expert Group and Expert Group on Fire-water Retention</b>		
1.	Belarus	Ms. Lubov Hertman Researcher, Water Monitoring and Cadastre Department Institute for Complex Use of Water Resources Slavinskogo str., ½, 220086 Minsk, Belarus Phone: +375 17 263 53 31., Mobile: +375 44 55 101 31 lubov.hertman@yandex.ru
2.	Czechia	Dr. Pavel Dobes Head of Laboratory for Risk Research and Management (LabRISK) Faculty of Safety Engineering VSB-Technical University of Ostrava Lumírova 13/630 Ostrava Výchovice 70030 Ostrava, Czech Republic Phone: +420 597 322 827 / Mobile: +420736607253 / E-mail: pavel.dobes@vsb.cz
3.	Finland	Ms. Tuuli Tulonen Senior Officer, D.Sc. (Tech.), Accident database VARO Finnish Safety and Chemicals Agency Yliopistonkatu 38, 33100 Tampere, FINLAND Tel. +358 29 5052 671 tuuli.tulonen@tukes.fi
4.	Germany	Mr. Gerhard Winkelmann-Oei German Federal Environment Agency Worlitzer Platz 1, Umweltbundesamt, 06844 Dessau, Germany Phone: +49-340-21-03-32-98 / Fax: +49-340-21-04-32-98 E-mail: gerhard.winkelmann-oei@uba.de
5.	Germany	Mr. Wolfram Willand Regierungspräsidium Freiburg, Aussenstelle Donaueschingen Irmastrasse 11, 78166 Donaueschingen, Germany Tel.: +49 (0) 771/8966-2759 / Fax.: +49 (0) 771/8966-2798 E-mail: Wolfram.Willand@rpf.bwl.de
6.	Germany	Dr. Cornelia Sedello German Federal Environment Agency Worlitzer Platz 1, Umweltbundesamt 06844 Dessau, Germany E-mail: cornelia.sedello@uba.de
7.	Hungary	Mr. Peter Kovacs Head of the Department of River Basin Management and Water Protection, Ministry of Interior, József Attila utca 2-4, 1051 Budapest, Hungary Phone: +36 1441 1376 / Mobile: +36-30-919-3821/ Fax: +36 1 441 1698 E-mail: peter.kovacs@bm.gov.hu
8.	Poland	Mr. Lukasz Kuziora Tel.: +48225617752 Main School of Fire Service Email: Ikuziora@sgsp.edu.pl
9.	Kyrgyzstan	Mr. Medetbek Omurbekov Department of subsoil use and mining industry, Leading Specialist, The State Agency for Geology and Mineral Resources under the Government of the Kyrgyz Republic, Erkindik ave. 2, 720739 Bishkek, Kyrgyzstan Phone: +996312909868, Mobile: +996551838087, medetbek.omurbekov@gmail.com
10.	Republic of Moldova	Mr. Vitalii Mutaf Civil Protection and Emergency Situations Service 69, Gh. Asachi street, Chisinau, MD-2028, Republic of Moldova Tel. +373 22511061 / Mobile: +373 79604283 vmutaf@mail.ru

No.	Country	Name, function and contact details
<b>Experts from the Joint Expert Group and Expert Group on Fire-water Retention</b>		
11.	Serbia	Ms. Suzana Milutinovic Head of Department, Major Chemical Accident Protection, Ministry of Agriculture and Environmental Protection, Omladinskih brigada 1, 11070 New Belgrade, Serbia Phone: +381 11 269 4880, Suzana.Milutinovic@eko.minpolj.gov.rs,
12.	Sweden	Mr. Claes-Håkan Carlsson Swedish Civil Contingencies Agency, Training, Exercises & Emergency Preparedness Department, SE-651 81 Karlstad, Sweden Phone: +46 771 240 240 / Direct: +46 10 240 50 48 / Mobile: +46 70 670 88 55 E-mail: claes-hakan.carlsson@msb.se
13.	Switzerland	Dr. Jesper Hansen AWEL Abteilung Abfallwirtschaft & Betriebe Weinbergstrasse 34 8090 Zürich Phone: +41432593252 E-mail: jesper.hansen@bd.zh.ch
<b>UNECE secretariat</b>		
14.	UNECE	Ms. Claudia Kamke, Environmental Affairs Officer Convention on the Transboundary Effects of Industrial Accidents Palais des Nations, 8-14 avenue de la Paix CH - 1211 Geneva 10, Switzerland claudia.kamke@unece.org
<b>Other experts</b>		
15.	Hungary	Mr. Zoltan Szilcsanov National Directorate General for Disaster Management Department of International Relations Ministry of Interior József Attila utca 2-4 H-1051 Budapest zoltan.szilcsanov@katved.gov.hu
16.	Hungary	Mr. Zoltan Pozsar National Directorate General for Disaster Management Ministry of Interior József Attila utca 2-4 H-1051 Budapest zoltan.pozsar@katved.gov.hu
17.	ICPDR	Mr. Adam Kovacs Technical Expert on Pollution Control International Commission for the Protection of the Danube River VIC, Wagramerstrasse 5 A-1220 Vienna, Austria adam.kovacs@unvienna.org

## Annex II – Responsibilities for drafting and comments per chapter of the draft UNECE Safety Guidelines for Fire-water Retention

### 1) Responsibilities for drafting

Chapter of the UNECE Safety Guidelines for Fire-water Retention	Person in charge
FOREWORD	Secretariat
BACKGROUND AND ACKNOWLEDGEMENTS	Secretariat
PART A – INTRODUCTION	Secretariat
A.1 DEFINITIONS AND TERMINOLOGY	
A.2. SCOPE	
A.3. BASIC SAFETY PRINCIPLES	Gerd
PART B – RECOMMENDATIONS	Peter
B.1. RECOMMENDATIONS TO GOVERNMENTS	
B.2. RECOMMENDATIONS TO COMPETENT AUTHORITIES	
B.3. RECOMMENDATIONS TO OPERATORS	Gerd
PART C – TECHNICAL AND ORGANISATIONAL MEASURES	Jesper, Lukasz, Wolfram
C.1 FIRE-PROTECTION CONCEPT	
C.1.1 GENERAL MEASURES	
C.1.2 INDIVIDUAL MEASURES	
C.1.3 STRUCTURAL FIRE-PROTECTION	
C.1.4 PLANT-SPECIFIC FIRE-PROTECTION	
C.3. FIRE-FIGHTING DIMENSIONING	
C.4. DESIGN OF RETENTION SYSTEMS	Claas-Hakan, Cornelia
C.4.1. CENTRAL RETENTION DEVICES	
C.4.2. DECENTRALIZED RETENTION DEVICES	
C.4.3. REQUIREMENTS FOR FIRE-FIGHTING WATER BARRIERS	
C.4.4 DECENTRALIZED RETENTION DEVICES	
C.4.5 REQUIREMENTS FOR FOR-FIGHTING WATER BARRIERS	
C.4.6 PLANNING AND MAINTENANCE OF FIRE-FIGHTING WATER RETENTION SYSTEMS	
C.5 FIRE-FIGHTING WATER DISPOSAL	
REFERENCES	Secretariat
Annex 1 – Examples of Fire accidents	All experts
Annex 2 – Calculations according to different fire-fighting waters calculation models	Lukasz

### 2) Comments per chapter of the guidance

#### Introduction and general comments

- The title and content do not match as it is not clear where to find the safety guidelines and where to find the good practices when looking at the table of content. It should be clarified in the introduction that Parts A and B contain the safety guidelines and that Part C contains the good practices.
- There are many long sentences in the document. It would be easier for a non-native reader to break it down into shorter sentences.
- Mention in the guidance that Joint River bodies are stakeholders which should support the implementation of the guidance in the member states.
- The transboundary dimension should be highlighted more in the recommendations in the guidance, e.g. a country should be informed about the fire-water retention installations in the notification process. The transboundary aspect should also be stressed in the introduction.
- A small abstract and leaflet for the guidance on fire-water retention should be developed.

- Mention the financial implications of fire-water retention accidents in the introduction and add a column in annex on total costs caused by contaminated fire-water.

## Part A

### **Definitions – Secretariat**

- Include a definition of competent authority, clarifying that it means the competent authority which is responsible for that task in a given country.
- Add “if contaminated” at the end of the fire-water retention definition.
- Add in first footnote that it is US EPA (given that there are many EPAs).

### **Scope– Secretariat**

- All hazardous activities vs. processing industry – not clear (not normal office houses should be included in this) - Clarify this
- Para 3: rephrase by taking out “all” HA and specify “processing” (instead of other) activities.
- Check also where the reference was made in other paras
- Para 5, last sentence should be proofed with references (from New Zealand Report and Swedish document) as it is a strong sentence

### **Basic Safety Principles – Gerd**

- Para 14: It should read “Perfluoro and Polyfluoro Carbons”

## Part B

### **Recommendations to Governments – Peter**

- Para 28 - shift the recommendation to the recommendations for competent authorities, given that governments make regulations, and clarify what is meant with technical rules
- Para 29 - move first sentence to the recommendations for competent authorities (it depends on the country) and rephrase it saying that competent authorities should “request” (not encourage) operators to do it; second sentence should be separate and remain under government recommendations (Peter to revise para 29, second sentence)

### **Recommendations to CA – Peter**

- Shift text from para 28 and 29 here (see above)
- Para 53 – not clear how the two sentences relate to one another: delete the para
- Para 56 (yellow highlight) – separate into two sentence and add after “regulations”: and the practical implementation of it

### **Recommendations to Operators – Gerd**

- Group recommendations in this part

## Part C

### **C.1. (General Aspects) and C2 (Fire-fighting water retention concept) – Jesper, Lukasz, Wolfram**

- Para 73 – not clear how the plans differ (as they overlap) and how the plans are related/called as it would be better to explain what kind of plans are meant, i.e. what they hold within them – delete the 4 plans and replace by The fire protection concept should include a fire-water retention plan.
- Combine C1 and C2 (the latter has only one para) into a new para 75

### **C.3. Fire-Fighting Water Retention Concept – Jesper, Lukasz, Wolfram**

- Rephrase chapter C.3 to include the following ideas:



- Based on an analysis of the calculation modelling the Swiss and VdS methodologies should be applied by developed and industrialized countries
- For less developed countries, we recommend the calculation in 1 to 1 or 10 times lower (two step approach)
- Check which impact this has on flow chart and revise it accordingly
- Rename the methodology currently called “Winkelmann-Oei” into “Expert Group methodology”

#### **C.4. Design Of Retention Systems – Cornelia, Claes-Hakan**

- Very close to VdS, need to double-check whether it is ok to make reference to the VdS in the guidance (see para 102), maybe also contact VdS to double-check that they are ok with the text
- Deadline for designing a retention system should be up to the countries (no inclusion of a deadline in the guidance)
- Para 130 –it should be clarified what the difference is between local, centralized and decentralized devices (Cornelia to provide a definition for inclusion)
- combine C.4.3 and C.4.4 to one chapter
- Para 135 – shorten or skip some parts there (too lengthy)
- Para 142 is bit too long (highlight yellow)

#### Annex 1

- Add the Buncefield accident in the table (Lukasz, in cooperation with Leigh-Ann) and add a Czech example (Pavel Dobes)
- Mention that you cannot use the calculation models for the accidents in annex I, given that they are extraordinary examples. Check whether also ordinary accidents could be included in this list to show costs of such accidents (Tuuli).
- Add a column specifying the costs of the accidents in the table. Secretariat to circulate a template for completion by all members (including the cost column).

#### Annex 2

- Rename the method by Mr. Winkelmann-Oei into to “Expert Group methodology”
- Add the Swiss method (Lukasz, in cooperation with Jesper)
- 5<sup>th</sup> method – Lukasz to decide what to do (just mentioning it without including it in the graph, skipping it or including it)
- Optimize the colour choice and graphical expression, e.g. by leaving some lines out (show less methodologies)
- Replace model for Hessen by Association of Chemical Industries of Germany (Gerd to send it to Lukasz)
- Keep only VdS High and Low graphs (take out the other two graphs and mention this in the explanations)
- In the last graph – include dots for the accidents to see how the models are reliable (we need reliable data for this), using also empirical data
- Reduce the number of figures in the annex (delete 2 of them), keep the one with 4000 MJ fire load