

For Official Use

ENV/JM/ACC/M(2009)1

Organisation de Coopération et de Développement Économiques
Organisation for Economic Co-operation and Development

17-Jun-2010

English - Or. English

**ENVIRONMENT DIRECTORATE
JOINT MEETING OF THE CHEMICALS COMMITTEE AND
THE WORKING PARTY ON CHEMICALS, PESTICIDES AND BIOTECHNOLOGY**

Working Group on Chemical Accidents

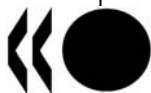
**DRAFT SUMMARY RECORD OF THE 19TH MEETING OF THE WORKING GROUP ON
CHEMICAL ACCIDENTS**

**7-8 October 2009
OECD Conference Centre
2, rue André Pascal, 75016 Paris, France**

<p>Marie-Chantal HUET Email: Marie-Chantal.HUET@OECD.org; Tel:+(33-1) 45 24 79 03; Fax: +(33-1) 45 24 61 80</p>

JT03285806

Document complet disponible sur OLIS dans son format d'origine
Complete document available on OLIS in its original format



**ENV/JM/ACC/M(2009)1
For Official Use**

English - Or. English

HIGHLIGHTS

The WGCA Meeting:

- Welcome the project for developing a paper on the role, objective and timeframe of a proposed joint EC-OECD Steering Group on accidents reporting.
- Recommended that the EC MAHB and the OECD Secretariat revise the Terms of Reference of the Co-operation Agreement on accidents reporting.
- Invited the Steering Group on Addendum to *Guiding Principles* and the Chemical Accidents Bureau, and anyone from the WGCA who is interested, to participate in an Expert Meeting (13-14 April 2010).
- Recommended that a draft Addendum to Guiding Principles – developed based on the conclusions from six workshops held since 2003 – be submitted for review and approval to the 20th WGCA Meeting.
- Suggested that WGCA delegations be surveyed on how they use safety performance indicators and the OECD Guidance on SPI (first half of 2010).
- Agreed to the establishment of a Steering Group – in co-operation with the OECD's Directorate for Financial and Enterprise Affairs (DAF) – to consider organising a joint workshop on corporate governance and the role of leadership in accidents prevention.
- Noted that a second interim report of the Steering Group on Natechwill be submitted to the 20th WGCA Meeting in October 2010 to be further considered as a basis for a workshop on Natech.
- Noted that a survey on risk and regulation of carbon capture for long term storage will be conducted in the first half of 2010.
- Agreed to the establishment of a Steering Group to investigate the risk of major accidents involving manufactured nanomaterials.
- Welcome an offer from Iceland to develop a proposal for further work in the area of safety practices related to fireworks storage.
- Suggested that the Secretariat send the WGCA a letter to ask delegates for their opinion on proposed further activities related to H₂S incidents.
- Re-elected the Chair and Bureau to serve until the next WGCA meeting.

SUMMARY RECORD OF THE 19TH WGCA MEETING

The 19th WGCA Meeting:

Agenda Item 1: Approval of the Draft Agenda [ENV/JM/ACC/A(2009)1]

- Approved the draft Agenda.
- Noted that the 19th Meeting of the Working Group on Chemical Accidents is chaired by Mark Hailwood, LUBW, Germany.

Agenda Item 2: Adoption of the Draft Summary Record of the 18th WGCA Meeting [ENV/JM/ACC/M(2008)1]

- Approved the draft summary record.

Agenda Item 3: Highlight and Progress of the Chemical Accidents Programme [ENV/JM/ACC(2008)1]

- Took note of progress of work of the Chemical Accidents Programme.

Agenda Item 4: Report on Recent Developments and Events by Delegations

- Took note of the countries/organisations' relevant activities in 2009.
- Noted that written information in electronic form, as well as PowerPoint presentations made at the meeting by: Canada, Czech Republic, Finland, Germany, Italy, Japan, Korea, Norway, Switzerland, United Kingdom, United States, the European Commission, the International Labour Organization (ILO), the UN environment Programme (UNEP) and the World Health Organization (WHO), are available on the 19th WGCA Meeting web page on the OECD community Chemical Accidents: <https://community.oecd.org/community/accidents>.

Agenda Item 5: Update on the Joint OECD-EC Chemical Accident Reporting and Analysis Scheme

Item 5a – MARS data base: Update on accidents statistics and key lessons learned since the 18th WGCA Meeting [Room Document 1 prepared by the JRC]

- Was reminded that (i) the EC Major Accident Hazards Bureau (MAHB) of the Joint Research Centre (JRC) is the lead for this activity; as agreed in the Terms of Reference for this project, the MAHB provides updates on reporting at the annual meetings of the WGCA; and (ii) in October 2008 at the 18th WGCA Meeting, Michalis Christou from the MAHB proposed to set up a joint EC-OECD steering group that would work on the analysis of accident reporting data and key lessons learned from past accidents.
- Noted that afterwards, there was an exchange of correspondence between the OECD Chemical Accidents Bureau, the MAHB and the EC-DG Environment to clarify some aspects of this proposal (for details see document [ENV/JM/ACC(2009)1] Highlights and Progress of the Chemical Accident Programme).

- Suggested that Michalis Christou write a paper on his thoughts about such a group: how it would work; what would be its role, objectives and timeframe. It was agreed that a draft paper be discussed at a next teleconference of the Chemical Accidents Bureau (November 2009 or January 2010).

Item 5b – Proposal for a revision of the Terms of Reference for the co-operation between the EC JRC-MAHB and OECD ENV-EHS on Chemical Accident Reporting and Analysis [Room Document 2 prepared by the OECD Secretariat]

- Agreed with the EC JRC and the OECD Secretariat's suggestion for renewing the Co-operation Agreement on accidents reporting – i.e. revising the 2000 Terms of Reference (ToR) – between the EC-MAHB and the OECD-WGCA.
- Supported the proposal and recommended that a new Agreement be signed by the three parties: the OECD Secretariat, the EC-DG Environment and the JRC MAHB. It was agreed that the EC MAHB and the OECD Secretariat will work together to revise the ToR of the Co-operation Agreement on accidents reporting (first quarter of 2010).
- Recommended that the revised ToR be presented at the 20th WGCA Meeting.

Agenda Item 6: Development of an Addendum to the 2003 edition of the OECD Guiding Principles for Chemical Accident Prevention, Preparedness and Response

Item 6a – Progress report of the Steering Group on Addendum to Guiding Principles (SG-GP Addendum) [ENV/JM/ACC(2009)2]

- Noted the progress report of the Secretariat led Steering Group in charge of developing an Addendum to the OECD *Guiding Principles for Chemical Accident Prevention, Preparedness and Response*.

Item 6b – Development of guidance for the planning and implementation of chemical accident workshops [ENV/JM/ACC(2009)3]

- Welcome with much interest the proposed *Guidance for the Planning and Implementation of Chemical Accidents Workshops*, prepared by a Consultant, Francine Schulberg (US).
- Recognised that (i) such guidance essentially concerns workshops that provide conclusions and recommendations which are relevant for a possible integration into the *Guiding Principles* – it has been developed for this purpose – and (ii) not all the workshops held under the auspices of the WGCA have this objective (e.g. the 2006 Workshop on Risk Assessment Practices for Hazardous Substances Involved in Accidental Releases).
- Recommended that the use of this Guidance Document be mandatory when a Chemical Accidents Workshop ends up in conclusions and recommendations which could be integrated into the *Guiding Principles*.
- Agreed that the Guidance Document be posted on the community Chemical Accidents web site.
- Welcome a suggestion from UNEP for surveying member countries on how they use the OECD *Guiding Principles*.

Item 6c – Evaluation of the conclusions and recommendations from three workshops in view of their integration into the Guiding Principles – Agreement process, follow-up and next steps [ENV/JM/ACC(2009)4] [ENV/JM/ACC(2009)5] [ENV/JM/ACC(2009)6]

- Was reminded that the objective of this project led by the Secretariat, is to develop a first addendum to the 2003 *Guiding Principles*. This addendum will take into account the conclusions and recommendations from six workshops held since 2003. The Steering Group on Addendum to *Guiding Principles* (SG-GP Addendum) – composed of representatives of Germany, the United States and the Secretariat, and a consultant – developed a proposal for the integration into the *Guiding Principles* of the conclusions from three workshops (2003 Italian workshop, 2004 Swedish workshop and 2007 Dutch workshop); those were submitted to the 19th WGCA Meeting.
- Recognised the importance of these documents and requested an extended review period (until the end of the year). WGCA delegations were invited to send their comments to the Secretariat no later than 21st December 2009, on documents ENV/JM/ACC(2009)4, ENV/JM/ACC(2009)5 and ENV/JM/ACC(2009)6 containing the conclusions from three workshops in view of their integration into the *Guiding Principles*.
- Noted that the SG-GP Addendum will meet on 9th October, i.e. immediately after the 19th WGCA Meeting. Note: at the 9th October meeting the SG-GP Addendum suggested holding a 1.5-day expert meeting to take place on 13-14 April 2010 at OECD, Paris. The purpose of the meeting will be to review the conclusions from six workshops in view of their integration into the *Guiding Principles*. A proposal for the integration of conclusions from the three remaining workshops (2003 Canadian workshop, 2006 EC-Canada co-sponsored workshop and 2007 German workshop) will be developed by mid-March 2010 for review at the April meeting. In addition to the four members of the SG-GP Addendum, members of the Chemical Accidents Bureau will be invited to participate in the April expert meeting, as well as anyone from the WGCA – or nominated by the WGCA – who is interested in this topic (a letter of invitation was sent out on 26th October, 2009).
- Recommended that a draft Addendum to *Guiding Principles* – developed based on the conclusions from six workshops held since 2003 – be submitted for review and approval to the 20th WGCA Meeting in October 2010.

Agenda Item 7: OECD Guidance on Developing Safety Performance Indicators

Item 7a – Report on a survey of member countries on activities undertaken to promote the 2008 edition of the SPI Guidance – discussion of further work to promote the use of SPIs and the use of OECD edition of the SPI guidance [ENV/JM/ACC(2009)7]

- Thanked the United States for leading this project. The second edition of the OECD *Guidance on Developing Safety Performance Indicators for Public Authorities and Communities/Public* (EHS series on Chemical Accidents, No. 18) and *Guidance on Developing Safety Performance Indicators for Industry* (EHS series on Chemical Accidents, No. 19) was published in September 2008. Since, more than one thousand of hard copies have been distributed and the electronic PDF *SPI Guidance* is available for download from the community Chemical Accidents web site. A survey of member countries on activities undertaken to promote the 2008 edition of the *SPI Guidance* was conducted in April 2009; the survey results were discussed at the 19th WGCA Meeting.
- Agreed – upon a suggestion from Finland – that a questionnaire should be circulated to member countries to survey them on how they use safety performance indicators and the OECD *Guidance on SPI*. In order to support the drafting of such a questionnaire, the representative of the United

Kingdom provided a copy of the letter that accompanied the circulation of the 2008 *SPI Guidance* in her country. In addition, it was agreed that WGCA delegations should be requested to provide powerpoint presentations, articles, and any material they have used to promote the *SPI Guidance* in their country or through their organisation. This information will be added to the tool box of resources – available on the protected web site – created to assist delegations with their efforts in promoting both the *Guiding Principles* and *SPI Guidance*; the toolbox is regularly updated with relevant documentation as appropriate.

- Thanked France that announced that the French version of the 2008 *Guidance on SPI* will be available in November this year.

Item 7b – Progress report on the updating and testing of the interactive web-based version of the 2008 edition of the SPI Guidance [ENV/JM/ACC(2009)10]

- Was informed that the updating and testing of the interactive web-based version of the 2008 *SPI Guidance* is continuing. To help ensure that it is well-designed, it is important that the developer get insights from representatives of the range of potential users. In this regard, WGCA delegates have been invited to provide comments on the proposed website and test it during the development phase. On 15th October 2009 the project lead – *Kim Jennings*, US EPA – sent the WGCA (and all participants to the 19th WGCA Meeting) a letter inviting delegates to review and send her (jennings.kim@epa.gov) – by November 9, 2009 – any additional comments or suggestions on the draft interactive website for the *SPI Guidance* (<http://oecd.sradev.com>).

Agenda Item 8: The role of leadership in preventing chemical accidents – Report on the presentation made at 44th Joint Meeting in June 2009 of a proposal for initiating activities on chemical accidents and corporate governance – Agreement on next steps [ENV/JM/ACC(2009)8]

- Was reminded that in October 2008 the 18th WGCA Meeting agreed on a new project which the objective is to raise the profile and importance of leadership in preventing major accidents. WGCA delegates also suggested that the project be conducted in co-operation with the OECD's Directorate for Financial and Enterprise Affairs (DAF)/Corporate Affairs (CA) Division. In June 2009, the project was presented to the 44th Joint Meeting of the Chemicals Committee and the Working Party on Chemicals, Pesticides and Biotechnology (the parent body of the WGCA). The Joint Meeting welcome the project, supported the establishment of a steering group and noted the value of OECD's work on Corporate Affairs, which could assist in the development of the project.
- Concurred to the Joint Meeting's recommendation including the establishment of a joint ENV/EHS and DAF/CA Steering Group.
- Thanked Canada, Germany, Korea, (possibly) Japan, Sweden, the UK, the US (that will work closely with the Centre for Chemical Process Safety), and BIAC for volunteering to participate in the proposed steering group. The first task of the steering group would be to gather and analyse information related to chemical accidents and corporate governance.
- Agreed to invite WGCA Delegations to send the Secretariat their nominations for a Steering Group on corporate leadership, no later than 31st January 2010.

Agenda Item 9: Control of the impact of natural hazards on chemical installations – Natural hazard induced chemical accidents (Natech)

Item 9a – Progress report of the Steering Group on Natech (SG-Natech) [ENV/JM/ACC(2009)9]

- Noted the progress report of the SG-Natech.

Item 9b – JRC Report on Natech risk reduction in OECD member countries – Results of a survey [JRC Publication]

- Congratulated the EC Joint Research Centre (JRC) – namely Elisabeth Krausmann and Daniele Baranzini of the Institute for the Protection and Security of the Citizen (IPSC) – for the Report of the EC-OECD survey of Natech conducted in February – May 2009. Delegations welcome the survey results and recommended that the conclusions be taken into consideration by the SG-Natech.

Item 9c: Interim report of the OECD Natech project [ENV/JM/ACC(2009)11]

- Noted that the Germany led SG-Natech – established late 2008 and composed of representatives of the Czech Republic, France, Germany, Korea, Switzerland, UK, US, EC, UNEP and the Secretariat – developed an interim report which addresses the following topics: a) interfaces with climate changes; b) interfaces with natural hazard mapping and land use planning; and c) emergency planning and international emergency assistance.
- Congratulated the SG-Natech and encouraged it to: (i) pursue its activities according to the work plan; (ii) refine/complete the interim report for a further submission to the 20th WGCA Meeting; and (iii) consider whether the *Guiding Principles* should be amended to include specific elements related to the natural hazard-induced chemical accidents.
- Agreed that upon a suggestion from the project lead the SG-Natech membership should be augmented; a request for additional nominations will be made by the Secretariat.

Agenda Item 10: Risk and regulation of carbon capture and storage (CCS) – Progress Report [ENV/JM/ACC(2009)12]

- Noted that the UK led SG-CCS – established early 2009 and composed of representatives of Canada, France, Germany, Korea, Netherlands, UK, EC, BIAC and the Secretariat – is developing a questionnaire for a survey of member countries addressing CO₂ capture, transport and injection into storage. A second draft questionnaire was reviewed by the group in August – September 2009; Germany, the Netherlands and BIAC made comments. A third revision based on these comments will be submitted to the steering group for final approval before it be circulated to member countries (January 2010).

Agenda Item 11: Project proposal: Risk of major accidents involving nanomaterials – Prevention of, preparedness for and response to accidents [ENV/JM/ACC(2009)13]

- Was reminded that in October 2008 the 18th WGCA Meeting welcome a suggestion from Switzerland for the Chemical Accidents Programme to address safety issues related to the prevention of, preparedness for, and response to accidents involving nanomaterials. Switzerland then prepared a project proposal in collaboration with France and Germany, and the Secretariat to the ENV-EHS Working Party on Manufactured Nanomaterials (WPMN).

- Discussed the proposal and encouraged a close co-operation on this topic between the WGCA and the WPMN, as well as consultation with potential partners belonging to IOMC (Inter-Organisation Programme for the sound Management of Chemicals) in particular UNITAR (United Nations Institute for Training and Research) and UNEP (United Nations Environment Programme).
- Recognised that a lot of activities on nanotechnologies have been undertaken at national and international levels, and one challenge of this project will be to avoid duplication. Furthermore the proposed project will have to start on a lower level since research on toxicity of nanomaterials has not yet reached sufficient development/outcome.
- Suggested that the proposed workshop might be delayed beyond 2012.
- Listened to with interest the delegates from France, Germany, the UK and BIAC who quoted their current activities in this area and expressed willing to participate in a steering group on safety in nanotechnologies. The Chair invited all delegations to investigate in their respective country and organisation, information concerning current research activities and existing experiences in the area of prevention of, preparedness for and response to accidents involving nanomaterials.

Agenda Item 12: Review of project proposal on safety and security related to explosives and precursors to explosives [Room Document 3 prepared by Sweden]

- Was reminded that in October 2008 the 18th WGCA Meeting welcome a proposal from Sweden for the Chemical Accidents Programme to address safety and security issues related to explosives and precursors for explosives. WGCA work in this area will be closely linked to the current European activities regarding security for explosives, improvised explosives and precursors for explosives; the EU work has been somewhat delayed.
- Thanked the delegate from Sweden who reported on an international Conference of Chief Inspectors of Explosives (CIE) held on 28th September – 2nd October 2009 in Osaka, Japan. WGCA delegates will appreciate to be kept informed of progress made in this area at both European and international level.

Agenda Item 13: review of an issue paper on the safety practices related to the storage of fireworks in the context of land use planning [ENV/JM/ACC(2009)14]

- Was reminded that in October 2008 the 18th WGCA Meeting welcome a project proposed by Iceland, on the development of safety practices related to the storage of fireworks in the context of land use planning. A steering group established mid-2009 and composed of representatives of France, Germany, Iceland (project lead), Norway, and the UK, drafted an issue paper on the topic.
- Appreciated the work initiated in this area and agreed to the following: a) the project lead – Iceland – will work with the steering group members to develop a proposal on further work; b) when approved by the steering group the proposal will be sent out to the Secretariat; and c) the Chemical Accidents Bureau will discuss and communicate with the steering group to decide on next steps.

Agenda Item 14: Analysis of H₂S incidents in the geothermal and other industries – Preliminary analysis of data [ENV/JM/ACC(2009)15]

- Was reminded that in October 2008 the 18th WGCA Meeting welcome a project proposed by Iceland, on analysis of H₂S incidents. A small steering group – established mid-2009 and composed of representatives of Canada, Germany (two people), and Iceland (project lead) – drafted

a report on a preliminary analysis of data concerning H₂S incidents in the geothermal and other industries.

- Showed interest in this preliminary report, but in general WGCA Delegations did not give a high priority to work in this area.
- Agreed that member countries should be asked to give their opinion on the five proposals (A to E) for further work as described in “*Section 9: Outline of Further Study*”, page 22 of document [ENV/JM/ACC(2009)15].

Agenda Item 15: Review of a project proposal on siting policies and sites for new import/export/storage for liquefied natural gas [Room Document 4]

- Was reminded that in October 2008 the 18th WGCA meeting welcome a project proposed by the United Kingdom, on siting policies and sites for new import/export/storage for liquefied natural gas (LNG). Delegates recommended linking the project with a Canadian Conference on LNG held in August 2009 in Montreal (as part of the 8th World Congress of Chemical Engineering). The purpose of the Conference was to explore the critical technical, regulatory and institutional issues that impact the expansion of LNG facilities in North America.
- Took note of the fact that the LNG conference proceedings will not be finalized until later this year. However, the "white paper" from a 2005 LNG Symposium co-sponsored by the Canadian Institute for Chemical Engineering and the American Institute of Chemical Engineers that addressed many of the same issues was provided for information. The Montreal conference findings will be circulated to the WGCA once they are available.
- Was of the opinion that there is no need for further work in this area for the WGCA.

Agenda Item 16: Resources [ENV/JM/ACC(2009)16]

- Noted the contributions and expenditures made during the past year to support the Chemical Accidents Programme. However, because of lack of time, the current critical financial situation of the Chemical Accidents Programme could not be discussed in depth.
- Agreed to devote more time to this issue at the next WGCA Meeting.

Agenda Item 17: Other business

- Indicated that there is no other matter for discussion.

Agenda Item 18: Election of Chair and Bureau

- Thanked Mark Hailwood for chairing the 19th WGCA Meeting.
- Re-elected the Chair and Bureau to serve until the next meeting: John Shrives (Canada); Pavel Forint (Czech Republic); Mark Hailwood and Roland Fendler (Germany); Hyuck-Myun Kwon and Beoyong Ham (Korea); Peter Frijns (Netherlands); Ake Persson (Sweden); Elizabeth Schofield (United Kingdom); Kim Jennings and Kathy Jones (United States); and Tobias Biermann (EC).

Agenda Item 19: Date of 20th WGCA Meeting

- Agreed to the date of the 20th WGCA Meeting that will take place on 6-8 October 2010 at OECD in Paris. It will be a 2.5-day meeting that will start on Wednesday 6th October at 09:30 and finish on Friday 8th October at lunch time.

PARTICIPANTS TO THE 19TH MEETING OF THE WORKING GROUP ON CHEMICAL ACCIDENTS (7-8 OCTOBER 2009)

Canada/Canada

Mr. John SHRIVES
Manager, Prevention
Environmental Emergencies Division
Environment Canada
15th Floor, 351 St. Joseph Blvd.
K1A 0H3 Gatineau
Canada

Tel: +1-819-997-3580
Fax: +1-819-997-5029
Email: john.shrives@ec.gc.ca

Czech Republic/République Tchèque

Mr. Pavel FORINT
Director
Department of Environmental Risks
Ministry of Environment
Vrsovicke 65
100 10 Prague 10
Czech Republic

Tel: +420 2 6712 2532
Fax: +420 2 6731 0013
Email: pavel.forint@mzp.cz

Ms. Martina PRAZAKOVA
Head of Unit
OPPZH
Occupational Safety Research Institute

Tel: +420 221 015 886
Email: prazakova@vubp-praha.cz

Finland/Finlande

Mr. Matti ALASALMI
Senior Adviser
Ministry of Employment and the Economy
P.O. BOX 32
00023 Government
Finland

Tel: +358-505500222
Fax: +358-9-1606 2179
Email: matti.alasalmi@tem.fi

Ms. Kristine JOUSIMAA
Senior Engineer
Ministry of the Interior
P.O. BOX 26
00023 GOVERNMENT
Finland

Tel: +358-40 5071056
Fax: +358-9-160 44672
Email: kristine.jousimaa@intermin.fi

France/France

Loic MALGORN
Chargé de mission
Ministère de l'Ecologie, de l'Energie, du Développement Durable et de la Mer
Arche - Paroi Nord
92055 La Défense Cedex
France

Tel: +33 (0) 1 40 81 90 21
Fax: +33 (0) 1 40 81 90 39
Email: loic.malgorn@developpement-durable.gouv.fr

Germany/Allemagne

Mr. Roland FENDLER
Industrial Installation Safety
Federal Environment Agency (Umweltbundesamt)
Wörlitzer Platz 1
06844 Dessau
Germany

Tel: +49-340-2103-3679
Fax: +49-340-2104-3679
Email: roland.fendler@uba.de

Mr. Mark HAILWOOD
LUBW Landesanstalt für Umwelt , Messungen und Naturschutz Baden-
Württemberg
Griesbachstr. 1
76185 Karlsruhe
Germany

Tel: +49-721-5600-2309
Fax: +49-721-5600-2339
Email: mark.hailwood@lubw.bwl.de

Mrs. Christiane KÜHL
Containment Systems for Dangerous Goods III.2
Federal Institute for Materials Research and Testing
Unter den Eichen 44 - 46
12203 Berlin
Germany

Tel: +49-30-8104-3986
Fax: +49-30-8104-1327
Email: christiane.kuehl@bam.de

Greece/Grèce

Professor Nikolas KAZANTZIS
Expert Adviser
Greek Ministry for the Environment, Physical Planning and Public
Works
Greece

Email: nikolas@wpi.edu

Iceland/Islande

Mr. Friðrik DANÍELSSON
Administration of Occupational Safety and Health
Bíldshöfði 16
110 Reykjavík
Iceland

Tel: +354 550 4600
Fax: +354 550 4610
Email: fridrik@ver.is

Italy/Italie

Mme Paola BLOTTA
Expert on Chemical Risks - Officer of Fire Brigade
Dip. Vigili del Fuoco, Soccorso Pubblico e Difesa Civile
MINISTRY OF INTERIOR
Rome

Tel: +39 06 4653 7616
Fax: +39 06 4652 5286
Email: paola.blotta@vigilfuoco.it

Nicoletta Valeria TROTTA
Researcher
General Direction of Environmental Protection
Ministry for the Environment, Land and Sea Protection
Via Cristoforo Colombo 44
00147 ROMA
Italy

Tel: +39 06 57225035
Fax: +39 06 57225087
Email: trotta.nicoletta@minambiente.it

Japan/Japon

Professor Kazuhiko SUZUKI
Professor
Division of Industrial Innovation Sciences
Graduate School of Natural Science and Technology, Okayama
University
Tsushima-naka 3-1-1
700-8530 Okayama
Japan

Tel: +81 86 251 8058
Fax: +81 86 251 8059
Email: kazu@sys.okayama-u.ac.jp

Dr. Masahide WAKAKURA
Emeritus Advisor
Research Institute of Science for Safety and Sustainability (RISS)
National Institute of Advanced Industrial Science and Technology
(AIST)
Onogawa 16-1
305-8569 Tsukuba
Japan

Tel: +81 29 861 8138
Fax: +81 29 861 8138
Email: wakakura-m@aist.go.jp

Dr. Yuji WADA
Senior Research Scientist
Research Institute of Science for Safety and Sustainability (RISS)
National Institute of Advanced Industrial Science and Technology
(AIST)
AIST West Site,
16-1 Onogawa
305-8569 Tsukuba
Japan

Tel: +81 29 861 8763
Fax: +81 29 861 8763
Email: yuji.wada@aist.go.jp

Ms. Shoko ABE
Technical Staff
Research Institute of Science for Safety and Sustainability (RISS)
National Institute of Advanced Industrial Science and Technology
(AIST)
AIST West Site,
16-1 Onogawa
305-8569 Tsukuba
Japan

Tel: +81 29 861 8138
Fax: +81 29 861 8138
Email: choco.abe@aist.go.jp

Korea/Corée

Mr. Jong-Ryool KIM
First Secretary
Permanent Delegation
4 Place de la Porte de Passy
75016 Paris
France

Tel: +33 1 44 05 20 59
Fax: +33 (1) 47 04 07 39
Email: jrkim124@msn.com

Mr. Cheon-Soo JANG
Deputy Director
Ministry of Environment
Government Comple-Gwacheon
88, Gwanmunro Gwacheon-si
427-729 Gyeonggi-do
Korea

Tel: + 82 2 2110 7952
Fax: + 82 2 507 24 57
Email: jangcs@korea.kr

Mr. Hyuck-Myun KWON
Director
Korea Occupational Safey&Health Agency

Tel: 82 32 5100 640
Fax: 82 32 512 8315
Email: hmkwon@kosha.net

Mr. Hee-sun YANG
Senior Researcher
National Institute of Environmental Research
Environmental Research Complex
Kyungseo-dong Seo-gu
404-708 Incheon
Korea

Tel: +82 32 560 7252
Fax: +82 32 568 2046
Email: hsyang@me.go.kr

Mexico/Mexique

Ms. Véronique DELI-MEADOWS
Minister-Counselor for Environmental Affairs
Ministry of Environmental Affairs
Permanent Delegation
8 Rue de Berri
75008 Paris
France

Tel: +33 1 56 59 29 04
Fax: +33 1 45 63 03 63
Email: vdeli@delegamexocde.org

Netherlands/Pays-Bas

Mr. Peter J.M.G. FRIJNS
External Safety Directorate (IPC 645)
Ministry of Housing, Spatial Planning and the Environment
Rijnstraat 8
2500 GX
Netherlands

Tel: +31 (70) 339 4429
Fax: +31 (70) 339 1286
Email: Peter.Frijns@minVROM.nl

Norway/Norvège

Mr. Gunnar HEM
Head of Corporate Legal Affairs, Senior Staff
Directorate for Civil Protection and Emergency Planning, Norway
Rambergveien 9
NO-3103 Tønsberg
Norway

Tel: +47 33 41 25 09
Fax: +47 33 31 06 60
Email: Gunnar.Hem@dsb.no

Ms. Torill TANDBERG
Director of Department, Industry, Products & Hazardous Substances
Directorate for Civil Protection and Emergency Planning, Norway
Rambergveien 9, PO Box 2014
N-3103 Tonsberg
Norway

Tel: +47 33 41 25 00
Fax: +47 33 31 06 60
Email: torill.tandberg@dsb.no

Sweden/Suède

Mr. Åke PERSSON
Swedish Fire Protection Association
Årstaängsvägen 21C
SE-115 87 Stockholm
Sweden

Tel: +46 8 588 475 01
Fax: +46 8 662 35 07
Email: ake.persson@svbf.se

Switzerland/Suisse

Mr. Daniel BONOMI
Deputy Head of Section
Section Safety of Installations and Earthquake Mitigation
Federal Office for the Environment (FOEN), Hazard Prevention Division
3003 Berne
Switzerland

Tel: +41 31 322 93 98
Fax: +41 31 324 78 66
Email: daniel.bonomi@bafu.admin.ch

**United Kingdom/
Royaume-Uni**

Ms. Elizabeth SCHOFIELD
Hazardous Installation Directorate Policy
Health and Safety Executive
Redgrave Court,
Merton Road
L20 7HS Bootle, Merseyside
United Kingdom

Tel: +44151 951 3422
Fax: +44151 951 3418
Email: elizabeth.schofield@hse.gsi.gov.uk

United States/États-Unis

Ms. Kim JENNINGS
Deputy Director, Regulation and Policy Development Division
Office of Emergency Management
US Environmental Protection Agency
Mailcode: 5104A 1200 Pennsylvania Avenue, N.W
20460 Washington
United States

Tel: +1 202 564 7998
Fax: +1 202 564 2620
Email: jennings.kim@epa.gov

Ms. Kathy JONES
Director, Evaluation and Communication Division
Office of Emergency Management
U.S Environmental Protection Agency
Mailcode: 5104A
1200 Pennsylvania Avenue, NW
20460 Washington
United States

Tel: +1 202 564 8353
Fax: +1 202 564 8222
Email: jones.kathy@epa.gov

Mrs. Francine SCHULBERG
Consultant
US EPA
237 22nd Avenue
94121 San Francisco
United States

Tel: +1 415 668 2239
Fax: +1 415 752 4120
Email: fschulberg@aol.com

EC/CE

Mr. Tobias BIERMANN
Policy Officer
European Commission, DG Environment
Avenue de Beaulieu 9
1049 Brussels
Belgium

Tel: +32 2 296 25 73
Fax: +32 2 299 03 14
Email: tobias.biermann@ec.europa.eu

Mr. Michalis CHRISTOU
Head of Major Accident Hazards Bureau
Joint Research Centre
European Commission
Traceability & Vulnerability Assessment Unit, Institute for the Protection
and Security of the Citizen(IPSC)
v. Fermi 1, TP 361
I-21027 (Va) Ispra
Italy

Tel: +39-0332-789516
Fax: +39-0332-789007
Email: michalis.christou@jrc.ec.europa.eu

Israel/Israël

Dr. Ytzhak DUER
Hazardous Substances Division
Ministry of Environmental Protection
P.O. Box 34033
95464 Jerusalem
Israel

Tel: +(972) 2 65 53 746
Fax: + (972) 2 65 53 752
Email: Ytzhakd@sviva.gov.il

**Business and Industry
Advisory Committee
(BIAC)/
Comité consultatif
économique et industriel
(BIAC)**

Mr. William GULLEDGE
Managing Director
Chemical Products & Technology Division
American Chemistry Council
1300 Wilson Blvd.
Arlington, VA 22209
United States

Tel: +1 703 741-5613
Fax: +1 703 741-6613
Email: William_Gulledge@americanchemistry.com

**International Labour
Organization (ILO)/
Organisation internationale
du travail (OIT/BIT)**

Mr. Seiji MACHIDA
Infocus Programme on Safety and Health at Work and the Environment
(Safe Work)
ILO
CH-1211 Geneve
Switzerland

Tel: +41 22 799 6163
Fax: +41 22 799 6878
Email: machida@ilo.org

**UN Economic Commission
for Europe (UNECE)/
Commission économique
pour l'Europe des Nations
Unies (CEE-ONU)**

Ms. Virginia FUSÉ
Convention on the Transboundary Effects of Industrial Accidents
United Nations Economic Commission for Europe
Palais des Nations
8-14 avenue de la Paix
1211 Geneva
Switzerland

Tel: +(00)41 22 917 4149
Fax: +(00)41 22 907 01 07
Email: virginia.fuse@unece.org

**UN Environment
Programme (UNEP)/
Programme des Nations
Unies pour l'environnement
(PNUE)**

Mrs. Ruth COUTTO
Programme Officer
Safer Production Business and Industry Unit, Sustainable Consumption
and Production Branch
UN Environment Programme (UNEP)
Division of Technology, Industry and Economics
15 rue de Milan
75441 Cedex 09 Paris
France

Tel: +33.01.44371634
Fax: +33.01.44371474
Email: ruth.coutto@unep.org

Mr. Tomas Ferreira MARQUES
Sustainable Consumption and Production Branch (SCP)
UN Environment Programme
15 rue de Milan
75009 Paris
France

Email: Tomas.Marques@unep.org

**World Health Organization
(WHO)/
Organisation mondiale de la
santé (OMS)**

Mr. Kersten GUTSCHMIDT
Department for Public Health and Environment
World Health Organization (WHO)
20 Avenue Appia
1211 Geneva
Switzerland

Tel: +41 22 791 3731
Fax: +41 22 791 4848
Email: gutschmidtk@who.int

OECD/OCDE

Ms. Mar GONZALEZ
Administrator, Nanosafety
ENV/EHS
OECD
Marshall Building 0295
2 rue André-Pascal
75016 Paris
France

Tel: +(33-1) 45 24 76 96
Fax: +33 1 44 30 61 80
Email: Mar.GONZALEZ@oecd.org

Mme Marie-Chantal HUET
Administrator, Chemical Accidents
ENV/EHS
OECD
Marshall Building 0283
2 rue André-Pascal
75016 Paris
France

Tel: +(33-1) 45 24 79 03
Fax: +33 1 44 30 61 80
Email: Marie-Chantal.HUET@oecd.org

Mr. Peter KEARNS
Principal Administrator
ENV/EHS
OECD
Marshall Building 0285
2 rue André-Pascal
75016 Paris
France

Tel: +(33-1) 45 24 16 77
Fax: +33 1 44 30 61 80
Email: Peter.KEARNS@oecd.org

Mr. Grant KIRKPATRICK

Senior Economist

DAF/CA

OECD

Annexe Ingres 260

2 rue André-Pascal

75016 Paris

France

Tel: +(33-1) 45 24 75 24

Fax: 01 49 10 43 53

Email: Grant.KIRKPATRICK@oecd.org

Ms. Kelly MAKOWIECKI

Assistant

ENV/EHS

OECD

Marshall Building 0263

2 rue André-Pascal

75016 Paris

France

Tel: +(33-1) 45 24 85 25

Email: Kelly.MAKOWIECKI@oecd.org