

SAFETY GUIDELINES AND GOOD PRACTICES FOR PIPELINES

CONFERENCE OF THE PARTIES
TO THE CONVENTION ON THE TRANSBOUNDARY
EFFECTS OF INDUSTRIAL ACCIDENTS

MEETING OF THE PARTIES TO THE CONVENTION
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WATERCOURSES AND INTERNATIONAL LAKES



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FOREWORD

Pipelines throughout the ECE region transport large volumes of hazardous substances, such as crude oil, its derivatives and natural gas. They are essential for the industrial and energy sectors and help to meet the needs for heat and energy for a large part of the region's population. In October 2011 the longest sub-sea pipeline in the world was inaugurated - the Nord Stream natural gas pipeline, running from Vyborg in the Russian Federation to Greifswald in Germany, covering 1,222 kilometres overall.

If pipelines are constructed, monitored, operated and maintained as required by international and national legislation and according to national and international industry standards and good practices, they can be safe and environmentally sound. However, they can also represent a serious risk to human health and the environment. External interference, corrosion and poor maintenance are the most common causes of pipeline accidents in the ECE region. Uncontrolled loss of containment, fires or explosions can lead to the loss of human life, accidental water pollution and major environmental catastrophes - as demonstrated by a number of pipeline accidents in the past two decades.

Although pipelines are operated with increasing care in many ECE countries, the safety of pipeline construction, operation and maintenance needs to be continuously guaranteed and further improved, where possible. This should also be seen in the light of the challenges posed by climate change, which may increase the probability of industrial accidents caused by extreme weather events and natural disasters.

I hope that these guidelines will be used by policymakers, public institutions, the business sector and civil society to enhance awareness and share experience and good practices for an improved pipeline safety across the ECE region. I would like to encourage the further implementation of the guidelines by Parties and ECE member States, which should help to prevent pipeline accidents and the severity of their consequences for human health and the environment.

Christian Friis Bach



Executive Secretary

United Nations Economic Commission for Europe

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BACKGROUND AND ACKNOWLEDGEMENTS

In response to the need to improve pipeline safety, United Nations Economic Commission for Europe (ECE) member countries decided to jointly develop safety guidelines and good practices for pipelines under two ECE conventions — the Convention on the Transboundary Effects of Industrial Accidents (Industrial Accidents Convention) and the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention). In 2004, the Conference of the Parties to the Industrial Accidents Convention and the Meeting of the Parties to the Water Convention mandated the Joint Expert Group on Water and Industrial Accidents to draw up safety guidelines and a good practice for pipelines.

The guidelines were developed by the Joint Expert Group, co-chaired by Mr. Gerhard Winkelmann-Oei (Germany) and Mr. Peter Kovacs (Hungary), with the support of the Industrial Accidents and Water Convention secretariats. To support the work of the Joint Expert Group, an international steering group was established, with the following members: Mr. Gerhard Winkelmann-Oei (Germany, co-chair), Mr. Bas Weenik (Netherlands, co-chair), Mr. Bernd Zaayenga (Germany), Mr. Pavel Danihelka (Czech Republic), Ms. Lorena De Giorgi (Italy), Ms. Christiane Kühl (Germany), Mr. Jörg Ludwig (Germany), Mr. Sergey N. Mokrousov (Russian Federation), Mr. Ender Okandan (Turkey), Mr. Walter Reinhard (Germany), Ms. Carla Speel-Zuiderwijk (Netherlands). The members of the steering group actively contributed to the drafting of these guidelines.

The resulting safety guidelines and good practices, as presented in this publication, were endorsed by the Conference of the Parties to the Industrial Accidents Convention at its fourth meeting (Rome, 15–17 November 2006) and by the Meeting of the Parties to the Water Convention at its fourth session (Bonn, 20–22 November 2006). Both bodies encouraged Parties and other ECE member States to disseminate the guidelines for use by the appropriate authorities.

The guidelines have been reissued in 2014 to update the references and provide a basis for their application throughout the region, following their review by the Joint Expert Group on Water and Industrial Accidents. Authorities, pipeline operators and the public are invited to apply these guidelines and good practices, which are intended to contribute to limiting the number of pipeline accidents and the severity of their consequences for human health and the environment.



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