



A FLEXIBLE FRAMEWORK FOR CHEMICAL ACCIDENT PREVENTION

Guidance for governments

UNITED NATIONS ENVIRONMENT PROGRAMME




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Background

The United Nations Environmental Programme (UNEP) is leading an international initiative to promote chemical accident prevention and preparedness. The initiative focuses on the development and implementation of a Flexible Framework for Chemical Accident Prevention which offers Guidance for governments wanting to develop, review or strengthen their national chemical accidents prevention and preparedness programme.

The initiative is part of UNEP's efforts to promote chemical safety in fast-growing economies that are experiencing a rapid industrialisation process and need support to address industrial chemical accident prevention and preparedness. The Guidance builds on more than 30 years of experience in addressing chemical accident prevention following several chemical accidents in the mid 1980's.

The Guidance takes into account international agreements in this area (especially the ILO¹ and UN/ECE² conventions), key national/regional laws/regulations (in particular the Seveso II Directive of the European Union and laws of the United States of America) and other international guidance materials (such as UNEP's APELL³ Programme and the OECD⁴ Guiding Principles for Chemical Accident Prevention, Preparedness and Response).

Implementation projects with a number of countries have already been initiated and proposals for further projects are under development.

Guidance for national governments

The Guidance offers in-depth information on critical elements of an industrial chemical accident prevention and preparedness programme based on international references and practical information addressed to national governments on how to develop such a programme.

More specifically, the Guidance:

- describes the steps that are needed before developing and implementing laws, regulations, policies, guidance or other instruments which would make up an effective chemical accidents prevention and preparedness programme;
- sets out the possible elements of such instruments; and
- provides resource materials related to how these elements may be implemented.

In order to coordinate the development and implementation of the Guidance, a UNEP Expert Working Group was created, involving selected experts and institutions in the fields of chemical safety and prevention of industrial accidents. Experts from relevant UN agencies (UNEP, UNIDO, ILO, UNECE, UNITAR, WHO, etc.), the European Commission (DG Environment and the Joint Research Center), the Organisation for Economic Co-operation and Development, the Asian Disaster Preparedness Centre, and selected countries and experts are represented in the Expert Working Group.

1 International Labour Organisation Convention 174 on the Prevention of Major chemical Accidents
2 United Nations Economic Commission for Europe Convention on the Transboundary Effects of Industrial Accidents
3 Awareness and Preparedness for Emergencies at Local level
4 Organisation for Economic Co-operation and Development



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A suggested step-by-step process

The Guidance suggests a step-by-step process for developing or improving a national chemical accident prevention and preparedness programme. Although the steps are presented in sequence, it is stressed that this is an iterative process and it may be necessary to revisit or repeat steps at different points.

<p>Initial Phase – Commitments and Coordination</p>	<p>In a first step, it is essential to secure governmental commitments and to establish the channels for effective coordination with relevant agencies and non-governmental stakeholders.</p>
<p>Assess Accident Potential (self-screening)</p>	<p>Once the team and initial needed resources are in place, the first task is to assess the nature and extent of the risk of chemical accidents in the country: where are chemicals produced or used? What risks do they pose?</p>
<p>Assess Legal Context and Available Resources</p>	<p>Next, the existing regulatory context and available resources need to be assessed: what legal instruments and policies are in place? Which organisations are responsible for implementing these? What resources may be available within or outside government?</p>
<p>Define Priorities</p>	<p>On the basis of the above assessments, priorities for the country should be identified and a plan of action should be created to develop or improve a national chemical accident prevention and preparedness programme: what needs to be done? What resources will be utilised? Who will take responsibility for the action? Within what time frame?</p>
<p>Choose/Adapt Elements of a Chemical Accidents Programme</p>	<p>Then comes the implementation of the plan of action. Using the information provided on elements of a chemical accident prevention and preparedness programme, the task is to develop a programme that addresses the specific needs of the country while taking into account the national context and available resources.</p>
<p>Create/Adapt Structures for Implementation</p>	<p>The final step is to ensure that the appropriate administrative and consultative structures are in place in order to implement and enforce each aspect of the chemical accident prevention and preparedness programme.</p>



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Elements of a chemical accident prevention and preparedness programme

The Guidance provides information on elements that are generally contained in a comprehensive programme for chemical accident prevention and preparedness. The following key elements are proposed.

The Scope of the Programme	
Scope	Under the “Scope”, information related to the definition of types of industries, facilities, and/or substances covered by a chemical accident prevention and preparedness programme is provided.
The Role of Competent Authorities	
Information management	Under the “Role of Competent Authorities”, information is provided in relation to activities generally carried out by identified government bodies.
Inspections	
Off-site Preparedness Planning	
Siting and Land-Use Planning	
Requirements of Industry	
General Duty Clause	Under the “Requirements of Industry”, types of requirements generally imposed on industry or undertaken by industry to meet a general obligation to operate their installations safely are specified.
Notification	
Prevention Policy	
Hazard Identification and Risk Assessment	
Safety Reports	
Preparedness Planning	
Information to the Public	
Information to the Public	This section describes the types of information that should be provided to those potentially affected in the event of an accident.
Accident Reporting, Investigation and follow-up	
Accident Reporting	This section provides information on accident reporting and investigations which could be pursued in order to learn and share lessons to improve safety.

For each of the above sections, information related to the rationale, practical application and possible pitfalls is provided. Excerpts from international instruments are also provided as references.

Who is the Guidance for?

The Guidance is addressed primarily to national government authorities that are seeking to develop, review or strengthen their national chemical accident prevention and preparedness programme. It can also be used to review existing programmes in order to make improvements, identify gaps, or facilitate implementation of agreements and standards.

Thus, the Guidance should be helpful to countries with little or no activities or systems in place to address chemical accident prevention or preparedness, as well as countries that have some competencies in this area and want to strengthen their existing systems.

Why have a national chemical accident prevention and preparedness programme?

The most important reason to establish a chemicals accidents programme is to prevent accidents from happening and limit any impacts should they occur, thereby avoiding or minimising harm to people and damage to the environment and property.

Chemical-related accidents can cause direct immediate harm to those on site of the accident and to others in the vicinity. Toxic releases from accidents can also cause longer term or indirect health impacts and can also contaminate water and soil used for drinking and agricultural purposes.

An effective chemical accident prevention programme is also a wise investment as it is less expensive to take appropriate actions to prevent accidents than it is to deal with the impacts of an accident.

What does the Guidance focus on?

The Guidance focuses on prevention and preparedness for industrial accidents at “hazardous installations” which include places where hazardous substances are produced, processed, used, handled or stored in such quantities and under such conditions that a chemical accident could occur. The types of accidents addressed by the Guidance would include any loss of containment, explosion, or fire involving chemicals which pose a hazard to human health or the environment.

UNEP would welcome to hear from countries that may be interested in implementing the Guidance or partnering with UNEP to fund implementation projects in order to contribute to promoting chemical accident prevention and preparedness worldwide.

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About the UNEP Division of Technology, Industry and Economics

The UNEP Division of Technology, Industry and Economics (DTIE) helps governments, local authorities and decision-makers in business and industry to develop and implement policies and practices focusing on sustainable development.

The Division works to promote:

- > sustainable consumption and production,
- > the efficient use of renewable energy,
- > adequate management of chemicals,
- > the integration of environmental costs in development policies.

The Office of the Director, located in Paris, coordinates activities through:

- > **The International Environmental Technology Centre** - IETC (Osaka, Shiga), which implements integrated waste, water and disaster management programmes, focusing in particular on Asia.
- > **Sustainable Consumption and Production** (Paris), which promotes sustainable consumption and production patterns as a contribution to human development through global markets.
- > **Chemicals** (Geneva), which catalyzes global actions to bring about the sound management of chemicals and the improvement of chemical safety worldwide.
- > **Energy** (Paris), which fosters energy and transport policies for sustainable development and encourages investment in renewable energy and energy efficiency.
- > **OzonAction** (Paris), which supports the phase-out of ozone depleting substances in developing countries and countries with economies in transition to ensure implementation of the Montreal Protocol.
- > **Economics and Trade** (Geneva), which helps countries to integrate environmental considerations into economic and trade policies, and works with the finance sector to incorporate sustainable development policies.

UNEP DTIE activities focus on raising awareness, improving the transfer of knowledge and information, fostering technological cooperation and partnerships, and implementing international conventions and agreements.

For more information,

see www.unep.fr

Chemical related industrial accidents can cause harm to people and damage to the environment and property.

An effective chemical accident prevention and preparedness programme will help avoid accidents and minimise impacts on the health of people and on the environment of accidents should they occur. As part of a new initiative led by UNEP, a Flexible Framework for Chemical Accident Prevention has been developed, offering Guidance for governments wanting to develop, review or strengthen their national chemical accidents prevention and preparedness programme.

An overview of the Guidance is provided in this brochure as well as contact information for countries wishing to find out more.

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