## **Resource Efficient Management of Chemicals**

in Textile and Leather Sector Companies



# **GUIDELINES FOR**

## **SERVICE PROVIDERS**





On behalf of Federal Ministry for Economic Cooperation and Development

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## Cover page photos

Chemical store in textile company,	Spraying unit in denim factory, Narayanganj,
Narayanganj, Bangladesh	Bangladesh
Chemical management training workshop for company personnel, Dhaka, Bangladesh	Effluent treatment plan in the textile factory, Ghazipur, Bangladesh

## Photos: Dr. Jürgen Hannak





On behalf of Federal Ministry for Economic Cooperation and Development

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## Resource Efficient Management of Chemicals in Textile and Leather Companies Guidelines for Service Providers

#### ABOUT THE TRAINER GUIDELINES

The objective of these guidelines is to provide practical guidance to facilitators/ consultants who are interested in assisting companies in the textile and leather sector with the implementation or upgradation of resource efficient management of chemicals in their companies. The approach and content closely correspond to the handbook "Resource Efficient Management of Chemicals in Textile and Leather Companies".

The guidelines contain instructions and references to worksheets, handouts, presentations as well as reading materials to support the companies during the different steps of assessing, prioritizing, planning and implementing of chemical management system elements and practices. The introductory part also outlines possible timeframes and approaches for implementing a full cycle of a factory improvement programme.

The materials are arranged in form of training units along the seven steps of the "Resource Efficient Management of Chemicals" (REMC) cycle of change. Each training units contains information on:

- Suggested timeframe for completing the training unit.
- Session plans, including learning objectives, an overview of steps, recommended reference materials.
- Links to recommended reference materials and sample presentations.





On behalf of Federal Ministry for Economic Cooperation and Development

#### Resource efficient management of chemicals - cycle of change and steps

The process of engaging and supporting companies in the implementation of chemicals management follows a cycle of change, consisting of seven main steps.



#### GIZ TOOLKIT FOR RESOURCE EFFICIENT MANAGEMENT OF CHEMICALS

- (1) Handbook for companies
- (2) Guidelines for service providers

Step 1	Get ready for change
	Conduct initial review
	Ensure commitment (time, resources) in your company
	Get your team together
Step 2	Understand and review the situation in your company
	Analyze material flows (particularly of chemicals) in your enterprise and identify NPOs
	Identify areas for immediate improvement ("hot spots")
	Systematically identify and document all chemical substances stored and used in your enterprise
Step 3	Identify and assess chemical hazards of the different chemicals in use
	Identify and assess hazards
	Classify chemicals by hazards
	Create a structured information base in form of a chemical inventory
Step 4	Identify and assess risks and control gaps
	Assess risks to health, safety and environment and identify control gaps and losses
	Analyze gaps and their causes for preparation of action plan
	Identify and document processes and chemicals of concern
	Prioritize areas and chemicals for interventions
Step 5	Develop your plan
	Identify and select possible measures
	Decide on objectives, targets and indicators
	Prepare action plan with specific measures
	Assess training needs and develop training plans
Step 6	Put chemical management into practice
	Implement action plans and test good practices
	Train your staff and workers
Step 7	Monitor, review and follow-up
	Review and report results
	Plan next (cycle of) steps
	Integrate results into your company





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#### BACKGROUND

The GIZ Chemical Management Toolkit was originally developed by the Convention Project Chemical Safety (GIZ CHS) situated in Bonn, Germany, in cooperation with the German Federal Institute for Occupational Safety and Health (BAuA) and the Pilot Program for the Promotion of Environmental Management in the Private Sector of Developing Countries (P3U), funded by the German Ministry for Economic Cooperation and Development (BMZ).

As part of the GIZ CHS initiative, a team of experts developed the toolkit, consisting of separate handbooks for companies and guidelines for trainers/consultants, adapted to the specific needs of small and mediumscale factories which use chemicals in their production processes. Since its first publication in 2005, the toolkit underwent several revisions.

With the emergence of reference standards such as the European chemical legislation REACH and supply chain driven requirements, such as under the Zero Discharge of Hazardous Chemicals (ZDHC), DETOX, bluesign, a team of experts and trainers under the GIZ Programme for Promotion of Social and Environmental Standards (PSES) in Bangladesh initiated steps in 2014 to further adapt the toolkit to the needs encountered in the textile and leather sector in Bangladesh.

#### PURPOSE

The main purpose of the toolkit is to help factories in the textile and leather sector manage the chemicals used in their production processes in line with international requirements and good practices, hereby eliminating or reducing any negative impact on environment as well as safety/health of workers and society.



#### TARGET GROUPS

The toolkit targets following groups of stakeholders:

- Company personnel tasked with managing and handling chemicals.
- Consultants/trainers interested in providing training and advisory services training to companies.
- Representatives of intermediary organisations interested in facilitating training for company personnel factory improvement programmes or training of services providers/business intermediaries.

#### Table 1 – Toolkit target groups

Target groups	For example	Criteria for selection	Additional assets
Companies			
Owners, managers, middle management, production manager, EHS officers	Sectors such as: Textile, tanneries, pulp and paper, painting, electroplating	Chemicals represent a major portion of the running costs. Primarily, small or medium sized company.	
Consultants/Trainers			
Environmental consultants/ business consultants		Background in chemical engineering/environmental engineering. Interest in providing CM consultancy to companies.	Have experience in working with companies.
Intermediaries			
Representatives of government and industry/ nongovernmental organisations (NGOs)	Such as: Chambers and associations of commerce and industry, environmental agencies universities, training institutes, agencies for health protection, associations, environmental, NGOs, technology transfer centers	Interest in the topic of chemical management. Possibility to organize trainings or to facilitate between consultants and companies. Have access to companies.	Can provide their own budget to organize training or are able to charge attendance fees.





#### FACTORY IMPROVEMENT PROGRAMME

#### OVERVIEW

The toolkit for companies is structured in such a way to enable companies to implement all steps on their own. Experience from the interventions at the company levels has shown that most companies prefer the support from an experienced service provider. Such support may take the form of (i) conducting a preliminary assessment of needs and gaps (pre-audit), (ii) training of key factory personnel, (iii) on- and off-site support during implementation, (iv) technical advice and further guidance following discovery of non-conformances (e.g. by authority, auditor).

The support to the company may either cover the whole cycle of implementation or specific elements only. Depending on the size of the companies covered (small-, medium-, large-scale), the engagement with the companies can be organized along following lines:

- 1. Company group training approach, involving 5 10 companies at a time (in case of mostly small- mediumscale companies).
- 2. Individual approach, usually for single larger companies using a combination of tailor-made training and advisory elements based on the standard training outline in the toolkit.

The content and explanation of these guidelines mainly refer to the company group training approach. The completion of one factory improvement programme (FIP) cycle will take between 6 – 8 months.





For the implementation of each step of the Factory Improvement Programme, interested service providers can refer to practical tools and materials in these guidelines. These include training session plans, presentation materials, handouts, worksheets, reference materials and internet links.

Table 2 – Factory	Improvement	Programme	(FIP)	<b>Overview</b>

Ref. No.	FIP Step	Purpose	Month
1	Orientation visit	<ul> <li>Familiarize with company</li> <li>Establish working relationship with company management</li> <li>Obtain management commitment</li> </ul>	1
2	Self-assessment	<ul> <li>Ensure availability of focal point/team</li> <li>Raise change readiness of company</li> <li>Develop preliminary understanding of company`s needs and priority areas</li> </ul>	1
3	Chemical Management System Workshop	• Develop competence of company personnel on CMS elements and understanding the situation	2
4	Implementation phase I	<ul> <li>Support company in assessing, prioritizing and documenting situation at hand</li> </ul>	3 – 4
5	Change & Risk Management Workshop	Develop competence of company personnel on risk control measures	5
6	Implementation phase II	• Support company in implementing control measures and anchoring CMS elements	6 – 8
7	Additional technical seminars	<ul> <li>Provide additional inputs on technical issues (e.g. selection of PPE, storage of chemicals, substitution)</li> </ul>	6 – 8
8	Review and documentation visit	<ul><li>Document and review progress</li><li>Support company in implementing next steps</li></ul>	8





## **REMC IMPLEMENTATION STEPS**

## Table 3 – Relationship between REMC cycle of change and Factory Improvement Programme (FIP)

Step	Activities	Supporting tools in GIZ REMC Toolkit	FIP Reference
Step 1 - Get ready for change	<ul> <li>Conduct initial review to establish preliminary baseline</li> <li>Ensure management commitment</li> </ul>	<ul> <li>REMC Quick-check tool</li> <li>REMC maturity matrix</li> </ul>	1 2
Step 2 - Understand the existing situation (data collection)	<ul> <li>Familiarise with process flows and production layout</li> <li>Clarify and document which chemicals are in use and where</li> <li>Prepare inventory of known chemical waste and emissions</li> <li>Familiarize with work routines, control measures and work procedures</li> <li>Familiarize with permits and other requirements</li> </ul>	<ul> <li>Eco-mapping tool</li> <li>Process flow charts</li> <li>Chemical inventory sheet</li> <li>NPO and waste inventory</li> <li>Mass balancing</li> <li>Checklists</li> <li>Regulatory register</li> <li>Links to international conventions and code of conducts</li> </ul>	3 4
Step 3 – Identify and assess chemical hazards	<ul> <li>Understand possible hazards associated with chemicals</li> <li>Classify chemicals by hazards and hazard bands</li> <li>Document production areas and processes with chemical hazards</li> </ul>	<ul> <li>Guideline on using safety data sheets</li> <li>GHS labels and markings</li> <li>Hazard banding tool</li> <li>Chemical inventory</li> <li>Eco-mapping</li> </ul>	3 4
Step 4 – Identify and assess risks and control gaps	<ul> <li>Assess risks to health, safety and environment</li> <li>Identify and document gaps between existing and recommended control measures</li> <li>Identify and document processes and chemicals of concern</li> <li>Prioritize areas and chemicals for interventions</li> </ul>	<ul> <li>Risk matrix tool</li> <li>Control /risk banding tool</li> <li>Risk control sheets</li> <li>Good practices checklists</li> <li>Storage checklist</li> <li>Eco-mapping</li> <li>Job Safety Analysis</li> <li>Hot spot checklists</li> <li>Eco-mapping</li> <li>Link to online tools and negative lists (ZDHC, SvHC)</li> <li>Chemical cost analysis</li> </ul>	3 4
Step 5 – Develop your plan	<ul> <li>Analyze immediate and systemic causes</li> <li>Identify and select possible measures</li> <li>Define goals, performance indicators and prepare action plan</li> <li>Ensure support from management</li> </ul>	<ul> <li>Mind mapping</li> <li>Root cause analysis</li> <li>Risk control sheets</li> <li>Cost-benefit analysis</li> <li>Action plan format</li> <li>Business case</li> </ul>	5 6





Step	Activities	Supporting tools in GIZ REMC Toolkit	FIP Reference
Step 6 – Put chemical management into practice	<ul> <li>Prepare/update procurement and work procedures</li> <li>Plan and initiate training and instructions</li> <li>Ensure safe storage</li> <li>Improve work routines</li> <li>Control exposure (substitution, ventilation, administrative control measures)</li> <li>Provide for personal protection</li> </ul>	<ul> <li>Guideline for preparation of procedure</li> <li>Purchasing checklists</li> <li>Trainings needs assessment</li> <li>Learning objectives</li> <li>Training plan</li> <li>Work instructions</li> <li>Checklist tool</li> <li>Compatibility chart</li> <li>Guideline for preparation of work instructions</li> <li>Risk control sheets</li> <li>Technical guidance sheets</li> <li>Link to positive lists</li> <li>Guidelines for selection of PPE</li> </ul>	5 6
	Plan and prepare for emergencies	<ul><li>Emergency plan outline</li><li>Checklists</li></ul>	
Step 7 – Monitor, review and report performance	<ul> <li>Evaluate improvements and review action plans</li> <li>Plan next steps</li> <li>Report performance and share good practices</li> </ul>	<ul> <li>Link to audit checklists and tools</li> <li>Action plan format</li> <li>Reporting format</li> <li>Case study format</li> </ul>	8

The REMC toolkit builds around these steps and is divided into thematic modules, which build on each other. Each thematic module is linked to separate technical learning sessions conveying the practical knowledge and skills which help the participants to gain the necessary competencies for implementing the different chemicals management steps in their companies.

### USING EXPERIENTIAL LEARNING AND GROUP LEARNING APPROACH

The approach to the training is based on the idea of **'Experiential Learning'**, which means that learning takes place by experiencing and critically reflecting it afterwards. Hence, training is a combination of transfer of theoretical knowledge, interactive exercises based on case studies and practical experiences gathered during site visits to companies. From the first day on, the participants will be working on actual problems of existing companies. The training will equip all participants with theoretical, methodological and practical know-how that they can use to improve their company's chemical management.

Furthermore, this training uses a **group approach**, i.e. working with a group of participants that will undergo the complete training course together. The group of participants is mixed with respect to background and profession, although they all interact in the field of chemical management. Experience has shown that by





working with a group, participants can benefit from each other's experiences and problem-solving capabilities. Training should enable them to establish a network and working relationships that can be used for future interactions.

After completing the entire chemicals management training cycle, the company participants will be able to:

- Apply the methods and tools learned and practiced during the training modules.
- Independently plan and implement measures for improving the management of chemicals in their companies with positive effects on occupational health and workplace safety (reduction of risks and hazards), the environment and the efficient use of chemicals (cost savings and increased productivity).
- Articulate their company's requirements for further external assistance, if required.
- Initiate steps to anchor and further propagate chemicals management at the different levels in their company.





#### **GUIDANCE SHEETS**

- 1. Orientation visit
- 2. Company self-assessment
- 3. Chemical Management System Workshop
- 4. Implementation phase I
- 5. Change & Risk Management Workshop
- 6. Implementation phase II
- 7. Additional technical seminars
- 8. Review and documentation visit

(Click on the headings to navigate to respective sections)





#### **1. ORIENTATION VISIT**

#### Purpose:

- Understand client's (company) situation and possible scope of work.
- Build rapport with your client.
- Sell your skills and services as a consultant.
- Arrive at common understanding with your client on issues at hand.
- Develop preliminary baseline of REMC situation.
- Collect necessary information for preparing a consulting proposal.

#### Approach

Arrange a meeting with company team for briefing, ideally the company team should involve representative from top management as well as those persons who will constitute the company's change management team. If time permits, introduce the overall concept resource efficient management of chemicals (refer REMC 1101 - Framework).

Conduct a general walk-through for first orientation/impression, combining the same with a REMC quickcheck exercise (see REMC quick-check handout). During the walk through the consultant(s) and the company team independently try verifying the check-list points. At the end of the walk-through, the company team and consultant(s) separately complete their score. For processing, prepare and present the results in form a spiderweb diagram, showing both company and consultant scores. Review and discuss the findings and results. The company team and consultant(s) strive for arrive at a common quick-check scoring at the end and enter the result into a second spiderweb diagram.

Recommended steps in processing quick-check exercise			
Step 1	Identify those areas where both company team and consultants agree		
	same or similar high score		
	same or similar low score - mark as areas of action		
Step 2	Identify those areas where company team and consultants disagree		
	Explain how you arrived at the conclusions		
	Important:		
	• Stick to facts: I/we observed I/we found, I/we talked to		
	Avoid emotional discussions		
	Indicate possible ways forward, but do not provide solutions		
	Special case:		
	Take note of those aspects on which company management and middle management do not agree. These may point toward systemic issues.		





At the end of the meeting agree on next steps. These steps should include the following:

- 1. Constitution of the company change management team.
- 2. Preparation of terms of references for the change management team by the top management.
- 3. Complete the self-assessment by the company team in preparation for the launch of the factory improvement cycle (see self-assessment).

Depending on the size of the company, plan for  $\frac{1}{2}$  - 1 day for the orientation visit.

#### **Recommended tools and materials**

- REMC quick-check tool
- REMC maturity matrix

(Click on the 'Recommended tools and materials' files to get more information)





#### 2. COMPANY SELF-ASSESSMENT

#### Purpose:

- To increase awareness in the company on REMC.
- To gain overview of implementation and priority areas.
- To prepare company stakeholders for REMC implementation.

#### Approach

Provide the company team with the REMC maturity matrix and request theme to complete the same. In addition, refer the company team to one of the other recommended checklist tools for carrying out a preliminary assessment of the practices and procedures in the company – usual timeframe: 2 - 3 weeks.

Request the company the share their findings with you prior to the Chemical Management System Workshop. In case the company has already been audited on chemical, environment and/or health & safety management aspects, review the findings and recommendations of the same.

#### **Recommended tools and materials**

- ZDHC CMS Guidance manual Self-assessment questionnaire
- HiGGs Audit protocol (section on chemicals)
- UNEP Responsible Production Good practices and procedures checklist
- REMC maturity matrix
- UBA BAT self-assessment tool

(Click on the 'Recommended tools and materials' files to get more information)





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#### 3. CHEMICAL MANAGEMENT SYSTEM WORKSHOP

#### **Purpose:**

• Develop competence of participating company personnel on CMS elements and understanding the situation.

#### **Proposed learning outcomes**

The target group of this training are members of the company change management teams. At the end of the training, the participants will be able to

- 1. Relate to the different key elements of a chemical management system (as per ZDHC CMS Guidance manual), national requirements and international buyers` expectations.
- 2. Identify and document chemicals and chemical waste (Non-Product Outputs NPOs) and critical areas using flow-diagram and eco-mapping methodologies.
- 3. Prepare (and amend existing) chemical inventory/register of chemicals to be used as chemical management information tool.
- 4. Identify and distinguish between hazards, effects and risks as well as possible types of exposure.
- 5. Categorise, classify and prioritise chemicals by hazards and hazard bands for possible prioritisation of interventions.
- 6. Distinguish the various labels and markings as per Global Harmonised Systems (GHS) and other common chemical label systems.
- 7. Assess completeness and quality of safety data sheets as provided by chemical suppliers.
- 8. Extract relevant information from safety data sheets (e.g. Standard GHS format) for identification of control gaps and selection of control and emergency preventive measures (risk control hierarchy, including introduction to personal protective equipment).
- 9. Identify and address areas requiring immediate remedial action.

#### **Recommended outline of workshop**

	Day 1	Day 2	Day 3	Day 4
Morning	Introduction to REMC Sources		Identify and document regulatory requirements	
Morning	Analyse and document material flows	ldentify and classify chemical hazards	Company	Review purchase practices
	Prepare chemical inventory inventory inventory concern		(Optional)	Prepare action plans for
Aitemoon	Chemical hazards and exposure	Identify hotspots		implementation phase I





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## Recommended session plans and training materials

Learning unit	Subject	Session plan	Presentation material	
LU 1100	Introduction to Resource Efficient Management of Chemicals (REMC) (Step 1)			
	Identify basic elements of chemical management	SP 1101	REMC 1101 - Framework	
	Identify structure and elements of a chemical management system (example ZDHC CMS)		REMC 1102 - ZDHC CMS Overview	
	Get ready for change		REMC 1103 - Getting Ready for Change	
LU 1200	Understand and Review the Situation in Y	our Company (Ste	ep 2)	
	Systematically identify and document all chemical substances stored and used in your organization	SP 1201	REMC 1201 - Process Flow Mapping	
	Prepare a chemical and waste inventory		REMC 1202 - Chemical Inventory	
LU 1300	Identify And Assess Chemical Hazards (Step 3)			
	Chemical hazards and exposure	SP 1301	REMC 1301 - Chemical Hazards and Exposure	
	Use information sources on chemicals	SP 1302	REMC 1302 - Labelling and Safety Data Sheets NAPO Training video	
	Classify chemicals and chemical hazards	SP 1303	REMC 1303 - Chemical Hazard	
			Banding	
	Identify and document processes and chemicals of concern	SP 1304	REMC 1304 - Chemicals and Processes of Concern	
LU 1400	Identify And Assess Regulatory Requirements and Purchase Practices			
	Assess and document regulatory and other requirements of chemical management in your organization	SP 1401	REMC 1401 - Regulatory Inventory	
	Review and organize chemical purchasing practices in your organization	SP 1402	REMC 1402 - Chemical Purchasing Practices	

(Click on the 'Learning unit', 'Session plan' and 'Presentation material' file numbers/ names to get more information)





#### 4. IMPLEMENTATION PHASE I

#### Purpose

• Support company in assessing, prioritizing and documenting situation at hand.

#### Process

After the *Chemical Management System Workshop*, the participants will implement the lessons learned in their respective companies over a period of 1 - 2 months, with or without the help of the consultant. In case the company seeks the support from the consultant, at least two sites visits are recommended during this implementation phase are recommended.

#### **Expected outcome**

At the end of the first implementation phase, each company is expected to have achieved the following:

	Milestones	Expected outputs
1.	Chemical flows and non-product outputs identified and documented	<ul> <li>Process flow chart</li> <li>Eco-map</li> <li>Inventory of chemicals used and present</li> <li>Chemical waste inventory</li> </ul>
2.	Chemical information base established	• Up-to-date safety data sheets (not older than 3 years) for all chemicals on record
3.	Chemical hazards and hazard bands identified and documented	<ul> <li>Updated inventory, with indication of hazard and hazard bands</li> <li>Updated eco-map</li> </ul>
4.	Chemicals assessed against applicable lists such as ZDHC MRSL, REACH SvHC/SvC, bluesign or other lists	Updated inventory, with indication of conformance to applicable lists
5.	Basic hazard communication practices in place	• Systematic labelling and marking of all chemical containers (including of those for internal use)





#### 5. CHANGE & RISK MANAGEMENT WORKSHOP

#### **Purpose:**

• Develop competence of company personnel on risk control measures.

#### Proposed learning outcomes

The target group of this training are the same members of the company change management teams, who have attended the first workshop. At the end of the training, the participants will be able to:

- 1. Carry out chemical risk assessment.
- 2. Identify and document control gaps and chemicals/processes of concerns.
- 3. Identify scope for improvement in their own company.
- 4. Assess the training needs.
- 5. Define performance goals and select performance indicators.
- 6. Prepare action plan addressing the same.
- 7. Implement good work and control practices.
- 8. Prepare workstation specific work instructions for safe handling of chemicals.
- 9. Plan for emergencies and implement preparatory measures.

#### Note:

• Depending on the available time, two selected areas of control practices can be included into the workshop e.g. selection and use of personal protective equipment, safe storage of chemicals. Alternatively, these subjects can be covered through additional short-term training courses.

#### **Recommended outline of workshop**

	Day 1	Day 2	Day 3	Day 4
Morning	Review progress	Assess training needs		Plan and prepare for emergencies
	Assess risks and control gaps	Put chemical management into practice	Company application (Optional) Risk assessment and gap analysis	Prepare action plans for implementation phase II
	Set control objectives, targets and indicators	Control exposure and ensure personal protection		





## Recommended session plans and training materials

Learning unit	Subject	Session plan	Presentation material
2100	Identify and Assess Risks and Control Gaps (step 4)		
	Assess risks to health, safety and environment using different methods of risk assessment	SP 2101	REMC 2101 - Risk Assessment
	Identify control gaps and losses using safety data sheets and recommended control approaches	SP 2102	REMC 2102 - Control Approaches
2200	Develop Your Risk Management Plan (Step 5)		
	Analyze gaps and their causes for preparation of action plan	SP 2201	REMC 2201 - Root Cause Analysis
	Select objectives, targets and indicators and preparing action plan(s)	SP 2202	REMC 2202 - Chemical KPIs and Action Plan
	Assess training needs and develop training plans	SP 2203	REMC 2203 - Competence Development
2300	Put Chemical Management into Practice (Step 6)		
	Establish organizational framework and communication practices	SP 2301	REMC 2301 - Organisation and Communication
	Control exposure and ensure personal protection	SP 2302	REMC 2302 - Selecting PPE
	Safe storage and transport of chemicals	SP 2303	REMC 2303 - Chemical Storage and Transportation
	Plan and prepare for chemical emergencies	SP 2304	REMC 2304 - Emergency Management
	Manage waste water and chemical wastes	SP 2305	REMC 2305 - Managing Chemical Waste
2400	Monitor, Review and Follow-Up (step 7)		
	Monitor, review, report and plan next steps	SP 2401	REMC 2401 - Review Inspection Auditing

(Click on the 'Learning unit', 'Session plan' and 'Presentation material' file numbers/ names to get more information)





#### 6. IMPLEMENTATION PHASE II

#### Purpose

• Support company in implementing control measures and anchoring CMS elements.

#### Process

After the CHANGE & RISK MANAGEMENT WORKSHOP, the participants will implement the lessons learned in their respective companies over a period of 3 months, with or without the help of an external facilitator. In case the company seeks the support from an external facilitator at least three sites visits are recommended.

#### **Expected outcome**

At the end of the second implementation phase, each company is expected to have achieved the following:

	Milestones	Expected outputs
1.	Risk assessment and gap analysis completed for priority areas	<ul><li>Risk assessment procedure</li><li>Risk map and record</li></ul>
2.	Action plan developed and implementation launched	<ul> <li>Performance goals and indicators</li> <li>Action plan with milestones, particularly addressing chemicals/processes of concern</li> <li>Revised purchase procedures</li> </ul>
3.	Competence development programme in launched	<ul><li>Training plan</li><li>Task specific work instructions</li></ul>
4.	Good work and control practices under implementation	<ul> <li>Procedure for PPE selection prepared and applied</li> <li>Safe storage practices followed</li> <li>Standardised hazard communication (signs, labels, safety data sheets)</li> <li>Waste management system established</li> </ul>
5.	Planning and preparation for emergencies completed	<ul> <li>Emergency plan</li> <li>Emergency provision for fire, medical emergencies and leaks in place</li> </ul>





#### 7. ADDITIONAL TECHNICAL SEMINARS

#### Purpose

• Provide additional inputs on technical issues (e.g. selection of PPE, storage of chemicals, substitution).

#### Process

In addition to the workshops on CHEMICAL MANAGEMENT SYSTEM and CHANGE & RISK MANAGEMENT WORKSHOP, there may be need for further training events, which focus on specific subjects related to the implementation of chemical management during phase I or II. Alternatively, you can also conduct some session under CHANGE & RISK MANAGEMENT WORKSHOP as stand-alone training events.

#### **Recommended session plans and training materials**

(Click on the 'Session plan' and 'Presentation material' file numbers/ names to get more information)

Learning unit	Subject	Session plan	Presentation material
	Selection and use of personal protective equipment	SP 2302	REMC 2302 - Selecting PPE
	Safe storage and transport of chemicals	SP 2303	REMC 2303 - Chemical Storage and Transportation
	Planning and preparing for emergencies	SP 2304	REMC 2304 - Emergency Management
	Conducting in-house training		REMC 3001 - Implementing Training
	Solid waste management		Check with GIZ
	<ul> <li>Waste water management</li> <li>Performance monitoring</li> <li>ETP management (O&amp;M)</li> </ul>		Check with GIZ





#### 8. REVIEW AND DOCUMENTATION VISIT

#### Purpose

- Document and review progress.
- Support company in implementing next steps.

#### Process

At the end of the implementation phase II, the external facilitator will conduct a review of progress in (1) anchoring of chemical management system elements and (2) implementation of good chemical management practices. The last step of the FIP process is the review and finalization of the next action plan together with the company representatives.

#### Expected outcome

	Milestones	Expected outputs
1.	Review conducted	<ul> <li>Inspection checklists and report</li> <li>Internal audit procedure</li> <li>Progress review report</li> </ul>
2.	First performance report prepared	Reporting procedure and format
3.	Further action planned	Updated action plan

#### **Recommended tools and materials**

- Good practices and procedures audit checklist
- UBA BAT self-assessment tool
- HiGGs 2.0 audit tool

(Click on the 'Recommended tools and materials' files to get more information)





#### **REFERENCE MATERIALS**

- 1. Moderation plans for session and learning units
- 2. Presentations
- 3. Tips for service providers

(Click on the 'Recommended tools and materials' files to get more information)







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