



# **Two-Day Workshop on Responsible Care for Chemical Risk Management**

(Under the Responsible Care Programme - Competency Mapping, Mastering, Analogy and Development (RECAP-COMMAND) for expanding India's chemical industry excellence)



**Venue: Hotel Novotel, Varun Beach, Visakhapatnam**

**Duration: June 19-20, 2017**

**Organizers**

**Indian Chemical Council  
Andhra Pradesh Pollution Control Board  
Sandia National Laboratory  
in association with  
CRDF Global, USA  
Acutech, Europe  
American Chemistry Council, USA**

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**South Zone Office:  
AP CWC Help Desk:**

## Background

The Andhra Pradesh Pollution Control Board and the Indian Chemical Council have decided for a joint Programme for extending helping hand to the chemical industry in Andhra Pradesh for risk reduction. One of the key interventions identified is promotion of Responsible Care, a voluntary programme being implemented by the Indian Chemical Council, which seeks to dwarf risks due to chemicals on the environment, health and promotion of safety measures. ICC has a focused vision for expanding the footprint of Responsible Care pursuing chemical industries in the Country by partnering with the Government bodies, and it has organised series of programmes with Gujarat pollution Control Board, Maharashtra Pollution Control Board, Tamilnadu Pollution Control Board, Telangana State Pollution Control Board and now associating with the Andhra Pradesh Pollution Control Board, for promotion of sound management of chemicals in their entire life cycle.

Andhra Pradesh Pollution Control Board, as an enlightened institution initiated several environmental initiatives, which formed basis for national programmes and this time, it joined hands with the movement of the Indian Chemical Council to further strengthen its resolve for chemical risk management in the Andhra Pradesh. As the Responsible Care programme is an industry initiative, seeking commitment of the industry management for implementation of 6 Codes of management of practices, and a proposed new addition of Security Code, for comprehensive management of chemical risks. RC holding industries are now extending handholding support to the new members pursuing RC to get logo. This unique mentoring programme is driving the qualitative change in handling chemical risks. As such, the movement not only ensures inclusive and sustainable development but also reduces risk to the society, and thus creates scope for further industrialization in the State.

ICC identified many interventions for sound management of chemicals in the country. One of the key interventions is to develop and certify the competent professionals for advancing the Responsible Care programme - an effective initiative of ICC in India for overall chemical risk management. Therefore, ICC initiated Responsible Care Programme - Competency Mapping, Mastering, Analogy and Development (RECAP-COMMAND) project to empanel RC auditors to be part of ICC's RC verifiers; and to certify RC advisers to serve chemical industry to get RC logo and to ensure sustained development. US Chemical Security Programme (USCSP) is pleased to extend specific thematic support through their implementing institutions. This Two-Day Workshop is one such programme being organized with the support of the Sandia National Laboratory and in association with the Andhra Pradesh Pollution Control Board, in Visakhapatnam, for the benefit of chemical industry in this region. The CRDF Global, Acutech, American Chemistry Council and Indian chemical industries have kindly agreed to depute their speakers to join the Sandia National Laboratory to support ICC for the Workshop.

## Chemical Risk and RC

Risk is defined as possibility of a harm arising from a particular exposure to a chemical substance, under specific conditions. While 'hazard' refers to inherent properties of a chemical substance that makes it capable of causing harm to a person or the environment; exposure describes both the amount of, and the frequency with which, a chemical substance comes into contact with a person, group of people or the environment.

Therefore, unless measures are taken to dwarf them to acceptable levels by various interventions, the chemicals possess potential risk in entire life cycle, i.e. during bulk storage, transportation, production/processing, use and disposal of wastes, product use and residuals in the environment etc. Therefore, a comprehensive programme defining stage specific good management practices is an imperative to prevent emergencies and significant consequences.

The Responsible Care programme is an industry designed voluntary programme for overall chemical risk management, through specific codes of management practices i.e. Product stewardship, process safety, employee health and safety, pollution prevention, distribution, emergency response and communication, distribution and security. Therefore, RC is an effective means to achieve chemical risk management.

## ICC-ICCA

- The International Council of Chemical Associations (ICCA) manages Responsible Care at the global level, supports, and monitors its implementation.
- ICCA accounts for more than 75% of worldwide manufacturing operations
- ICCA is a main channel of communication between the industry and various international organizations, including UNEP, WTO, UNITAR and the OECD
- Nearly 60 national chemical manufacturing associations participate in the program.
- In India, Indian Chemical Council (ICC), a member of ICCA, coordinates and promotes Responsible Care.
- ICC provides guidance to the companies, awards RC logo and monitors its implementation.

## What is Responsible Care?

- Responsible Care (RC) is a global voluntary initiative of chemical industry to excel and continually improve health, safety and environmental performance.
- RC is a commitment of the chemical industry for a world-class performance for safe, responsible management of chemicals throughout their entire life.
- RC addresses community concerns about chemicals and its impact on people and environment during processing, transportation and use.
- RC is an ETHIC – Self-imposed, and often exceed regulatory requirement.
- RC is a commitment to build trust and confidence between the Industry and the stake holders i.e. employees, community, customers, suppliers and contractors
- The practitioners of RC by being open and transparent work together with customers, supplier's contractors, community and Government besides employees.

## Evolution of Responsible Care Programme

- In early 80's, Canada witnessed accidents/ incidents in chemical industries, which resulted in loss of public image.
- Canadian Chemicals Producers Association (CCPA) launched Responsible Care Programme in 1985 to rebuild public acceptance to the chemical industries.
- The Bhopal tragic gas leak highlighted the importance of Responsible Care Programme, globally for adoption and implementation.

## Fundamental Principles of Responsible Care

Three fundamental principles are considered to improve public image and building of trust, which formed the corner stones of Responsible Care i.e.

1. Doing the right thing: Commitment to do the right thing, whether or not laws and regulations existed in a specific area.
2. Caring about products from cradle to grave.
3. Being open and responsive to public concerns

## Status of Adoption in India

- ICC is an apex body of chemical industries in India having more than 428 member industries, which covers more than 80% of value of chemical goods produced in India
- 130 companies signed commitment to the principles of Responsible Care Programme
- 46 companies are permitted by ICC to use RC logo after implementation of 6 Codes of management practices to the satisfactory level and upon receipt of the action programme for further improvement.
- ICC initiated mentorship program to extend handholding support to new companies, which signed commitment to implement RC Codes of Management Practices.

- ❑ ICC deposes its empanelled experts; with due regard to the conflict of interest considerations, for verification of the implementation status and to recommend improvement opportunities. On this basis decision to award RC, logo will be taken by ICC.

### Codes of Practice under Responsible Care Programme

1. Process Safety Code
2. Employee Health & Safety Code
3. Pollution Prevention Code
4. Emergency Response and communication Code
5. Distribution Code
6. Product Stewardship Code
7. In addition, preparing industry for adoption of Security Code in near future.

### Responsible Care Influence of Ethics

#### Old Ethic

- Do the minimum the law requires
- Low profile
- Limit product obligations
- Downplay public concerns
- Assumption of product “innocence”
- Hazard information, only if necessary
- Defensive approach to new regulations
- Every company for themselves
- Ignore or fight advocates
- Bottom line & laws alone guide decisions

#### New Ethic

- ✓ Do the right thing
- ✓ Be seen to do the right thing
- ✓ Life cycle stewardship
- ✓ Seek and address public concerns
- ✓ Risk-based precautionary principle
- ✓ ‘Public & employee’ right to know all risks
- ✓ Lead in public policy process
- ✓ Mutual aid & peer pressure
- ✓ Seek advocates inputs
- ✓ Integrates all the above into decisions

### Due process to Obtain Responsible Care logo

Sequence of steps involved in permitting use of RC logo:

1. Introducing Responsible Care Programme to Senior Management
2. Chief Executive Officer of a company signs the commitment to: Responsible Care Guiding principles & adopts Six Codes of management practices
3. A check list is made available for self assessment
4. ICC Team visits for gap assessment and to extend hand-holding support
5. Industry implements the activities, as identified on a priority scale
6. Already RC Logo holding companies would be identified for mentoring newly signed industries
7. After achieving minimum expectation, ICC Team visits for code-specific verification audits
8. Each case is presented to RC Expert Committee of ICC
9. RC expert Committee takes the decision to award RC logo for specified duration
10. Surveillance audits are conducted in the middle/for renewal – ICC reserves the right to withdraw Logo, if it has reasons to believe non-compliance at any time
11. Performance is monitored through KPI reporting and ongoing communication.

### Benefits of Responsible Care

- ✓ People sense a new pride in their company and industry
- ✓ Employees see an increasing match between their own and expressed and supported by the company
- ✓ Overall, it reinforces and spreads the concept of existing for the customers.

- ✓ Builds public trust and confidence in chemicals and the companies practicing Responsible Care.
- ✓ Reduces pollution, improves energy efficiency and use of renewable energy, reduced water consumption
- ✓ Safe management of Chemicals throughout the Globe
- ✓ Helps build informed, protected society and sustainable future for everyone.
- ✓ Supports compliance with chemical regulations.
- ✓ Helps meet expectations of external stakeholders e.g. corporate social responsibility and sustainable development commitments
- ✓ No clean up/Remediation cost
- ✓ Savings otherwise costs due to damage/ hospitalization/ health costs/ compensations/ insurance costs etc.

### Tangible benefits of Responsible Care

- |                                        |                                     |
|----------------------------------------|-------------------------------------|
| ✓ Insurance                            | ✓ Workers compensation costs        |
| ✓ Financing rates                      | ✓ Clean-up costs                    |
| ✓ Legal liabilities                    | ✓ Management system improvements    |
| ✓ Pollution prevention                 | ✓ Product development               |
| ✓ Voluntary approaches:                | ✓ Information exchange              |
| ✓ Process safety                       | ✓ Costs of ill repute               |
| ✓ Innovation Vs. Compliance            | ✓ Supporting company growth         |
| ✓ Faster permitting                    | ✓ Rational priority setting         |
| ✓ Crisis management                    | ✓ Efficient training                |
| ✓ Risk based policies Vs. product bans | ✓ Making better informed decisions  |
| ✓ Marketing advantage                  | ✓ Ongoing channels of communication |

*“Ethics, too, are nothing but reverence for life... namely, that good consists in maintaining, promoting and enhancing life, and that destroying, injuring and limiting life are evil...” - Albert Schweitzer*

## Two-Day Workshop on Responsible Care for Chemical Risk Management

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Date: June 19-20, 2017

### Tentative Schedule of the Program

Day-1	Monday		June 19, 2017
<b>08.30-09.00</b>	<b>Registration / Welcome</b>		
<b>Session 1</b>	<b>Inaugural Session</b>		
9.00 - 9.10	Opening Remarks	Mr. P.M.C. Nair, Chairman, ICC-Southern Zone	
9.10 - 9.25	Welcome Address - Responsible Care: A Programme for Chemical Risk Management	Mr. Ravi Kapoor President, ICC & MD, Heubach Colour Pvt. Ltd.	
9.25 - 9.45	Responsible Care Launch - <ul style="list-style-type: none"> <li>• Lamp lighting</li> <li>• Release of Guidance Manual on Responsible Care &amp; T-Shirt</li> <li>• Group photo</li> </ul>	Dr. G.N. Phani Kumar, IAS, Retc., Chairman, APPCB, Chief Guest Smt. VL Indira Dutt, JMD, KCP Ltd. Guest of Honour Sh. BSS Prasad, IFS, MS, APPCB, Guest of Honour Sh. S. Suresh, ZO-South, CPCB - Guest of Honor USCSP, SNL, CRDF, Acutech and ACC Experts  <u>ICC Team</u> Sh. Ravi Kapoor, President-ICC Sh. Vijay Shankar, VP-ICC Sh. BL Goculdas, Chairman-Sustainability-ICC Sh. Parthasarathy, Former President-ICC Sh. PMC Nair, Chairman-Southern Zone-ICC Sh. N. Krishnamoorthy, EC Member-ICC Sh. N. Shrikanth, Vasanth Chemicals DG, & Director-ICC	
	Address by dignitaries on the Dias		
9.45 - 10.00	Address by Chief Guest: Sustainable Industrial Development - Policies and Plans	Sh. Dr. G. N. Phani Kumar IAS, Retc., Chairman, APPCB	
10.00 - 10.30	Key-Note Address: Chemical Safety and Security - A Global Review	Mrs. Susan Caskey Sandia National Laboratory, USA	
10.30 - 10.40	Concluding Remarks & Vote of Thanks	HS Karangle, DG-ICC/ N. Sateesh Babu, Director-ICC	
<b>10.40 - 11.00</b>	<b>Coffee / Tea Break</b>		
<b>Session 2</b>	<b>Environmental Risk Management in Chemical Industry</b> <b>Chair: Mr. Ravi Kapoor, President-ICC</b>		
11.00 - 11.30	Regulatory Framework for Environment Management in India	Sh. BSS Prasad, I.F.S, Member Secretary, APPCB	
11.30 - 12.00	Strategic Approach for International Chemicals Management - A Quick Review of Indian Context	N. Sateesh Babu, Director-ICC & Member National Coordination Committee for advising National Action Plan for Chemicals, Govt. of India.	
12.00 - 12.30	Environmental Management in Chemical Industries	Sh. Suresh Zonal Officer, CPCB, Kolkata	
12.30 - 1.15	Panel Discussion on Environmental Management - CPCB, APPCB, ICC	Mr. Ravi Kapoor, Sh. BSS Prasad, Sh. Bimal Goculdas, Sh. S. Suresh, Sh. N. Sateesh Babu	

<b>1.15-2.00</b>	<b>Lunch Break</b>	
<b>Session 3</b>	<b>Chemical Risk Management - Principles and Assessment</b> <b>Chair: Mr. PMC Nair, Chairman-South Zone-ICC</b>	
2.00 - 2.40	Principles of Chemical safety and Security Risk Management	Mrs. Susan Caskey Sandia National Laboratory, USA
2.40 - 3.15	Chemical Risk Assessment - Characterisation	Mrs. Susan Caskey Sandia National Laboratory, USA
<b>3.15 - 3.30</b>	<b>Coffee / Tea Break</b>	
3.30 - 4.45	Chemical Risk Assessment - Evaluation & System Requirement	Mr. Marty Rose Acutech, USA
4.45 - 5.00	Question and Answer Session	
<b>Day-2 Tuesday June 20, 2017</b>		
<b>Session 4</b>	<b>Responsible Care Logo - A Beacon of Hope for Sound Management of Chemicals</b> <b>Chair: Mr. Dan Rockzniack, ACC</b>	
9.00 - 9.30	Wrap-up of previous day coverage and Introduction to RC Programme in India	Mr. Trimbak Hote Director-RC, ICC
9.30 - 10.00	Product Stewardship Code - Sabic's Experience	Dr. Vinay Bhardwaj Global Regulatory Affairs, Sabic Innovative Plastics India Pvt. Ltd., Gurgaon
10.00 - 10.30	Process Safety Code - Dow's Experience	Dr. M. Surianarayanan Chairman-EHS Committee, Southern Zone, ICC
10.30 - 11.00	Occupational Health & Safety Code - Hikal's Experience	Mr. Saravanan Kasthuri Corpt. Head - EHS, Hikal Ltd.
<b>11.00 - 11.15</b>	<b>Coffee / Tea Break</b>	
11.15 - 11.45	Pollution Prevention Code and Indian Experience	Mr. V. Nirmal Gandhi, Sr. Manager-Env. & System, Thirumalai Chemicals Ltd.
11.45 - 12.15	Emergency Response & Communication Code - Sanmar's Experience	Mr. G. Shankar Subramanian Vice President-Operations Chemplast Sanmar Ltd.
12.15 - 12.45	Distribution Code & Nicer Globe - Clariant's Experience	Mr. Allwyn Crasto Transportation and Distribution Safety & ERFPSouth Asia, BASF India Ltd.
12.45 - 1.15	Panel Discussion - SNL, CRDF, ACUTECH and ACC to join.	
<b>1.15 - 2.00</b>	<b>Lunch Break</b>	
<b>Session 5</b>	<b>Chemical Risk Management: Control Measures and Case Studies</b> <b>Chair: Mr. Bimal Goculdas, Chairman - Sustainability Committee, ICC</b>	
2.00 - 3.15	Security Vulnerability Assessment and Management	Mr. Marty Rose Acutech, USA
<b>3.15 - 3.30</b>	<b>Coffee/ Tea Break</b>	
3.30 - 4.30	Case Study + Review	Mrs. Susan Caskey Sandia National Laboratory, USA
4.30 - 4.50	Summary of Responsible Care & Chemical Risk Management and Panel Discussions	
4.50 - 5.00	Vote of Thanks: Mr. Shaju Mangalam, Secretary, ICC/ Mr. Kalyanaraman, ICC-South	

**'Responsible Care': A way-forward for chemical risk management and sustained business growth**