

Awareness-cum Training Workshop on
On-site Emergency Planning & Chlorine Safety

**Organized at Shahdol on 27/09/2013 by
Emergency Response Centre, M. P. Pollution Control Board**

A Note on the proceedings of the Workshop

An awareness Workshop on "On-site Emergency Planning & Chlorine Safety" was organized by Emergency Response Centre (ERC), M.P.Pollution Control Board in coordination with Regional Office Shahdol at conference Hall of M/s Orient Paper Mill, Amlai, Dist. Shahdol on 27th Septemebr 2013 to create awareness on chlorine safety and emergency planning among the target groups including industry personnel, chlorine users, officers from local administration, water works officials from various Nagar Palikas of Shahdol Division, regulators and first responders during emergency like officials from police, fire & safety, health etc.

The programme started with the Saraswati Vandana and lighting of ceremonial lamp by the Chief Guest Shri TEC Vidyasagar, Former Dy. Chief Inspector of Factories, Govt. of Andhra Pradesh. This was followed by floral welcome of the dignitaries and welcome address by Shri N.K. Saha, Chief Executive Officer, M/s Orient Paper Mill, Amlai, Dist. Shahdol who praised the activities of ERC and welcomed the efforts for conducting such beneficial out-reach awareness programmes to sensitize the people and raise the level of understanding for safe management of hazardous chemicals. Shri Saha also mentioned how OPM authorities are vigilant towards the safety and environment aspects by keeping a constant watch on all possible hazard prone areas.

This was followed with address by Dr. Gunwant Joshi, Chief Chemist & Head, Emergency Response Centre, M.P. Pollution Control Board who briefly spoke

on background of out-reach programmes and prevailing need in the present time for better emergency planning to meet possible challenges being confronted today in handling and management of toxic chemicals. Dr Joshi also spoke on the issues related to the need of emergency planning by all the industries including future exploration Projects like Coal Bed Methane etc. He further expressed that such out-reach programs are being organized by ERC across the State in various industrial pockets with an idea to reach out to the industry people in their own settings instead of calling them away from their work locations. He was optimistic about such activities and hoped that this would ensure presence of more and more participants and help in developing better coordination amongst the industry, first responders, regulators and the technical support groups. He also made the participants aware about the activities of ERC, its strength, available infrastructure and how it helps and support the target groups in times of chemical mishaps and other similar situations.

The chief guest of the function, Shri TEC Vidyasagar, welcomed the concept of out-reach programme initiated by ERC and urged the participants to avail full benefits of it and share all chemicals related concerns freely with this centre in the interest of all. He also touched few other points including the strengths that ERC has at present to provide technical inputs and guidance to the target groups. He stressed on the need of chemical safety on priority and said that it cannot be achieved merely by enforcing laws, rather every individual should take it as moral and social responsibility to achieve the goal in real sense and help in prevention of chemical accidents culminating into disasters.

In his address he appealed the audience to carry the message of safe practices in the chemical process and requested the industries to adopt the same in their own industrial installations by observing the lessons learnt at the workshop.

The Vote of Thanks was extended by Shri Alok Jain, Regional officer, M.P. Pollution Control Board, Shahdol. He acknowledged all the support extended by the management of Alkali Manufacturers' Association of India (AMAI), New Delhi and the management of M/s Orient Paper Mill (O.P.M.), Amlai in organizing the workshop. He thanked all the Govt. officials from various departments, industry personnel, chlorine manufacturers and users and others who turned up to attend the programme.

A total of 109 participants from various industries and Govt. departments were benefited from the workshop. The presence of resource persons included Shri TEC Vidyasagar, former Dy. Chief Inspector of Factories, Govt. of Andhra Pradesh, Shri H.S. Sehgal, Ex. DGM, M/s GACL, Vadodara, Shri H.S. Das, Joint Director & Head, HSE, AMAI, New Delhi, and Safety head of M/s O.P.M. Amlai.

The Technical Session was divided into two parts, the first comprising of two lectures on 'Planning & Preparedness for effective chemical emergency response' and 'Case Studies on Chlorine hazard and Operation of Chlorine Network in the country'.

The second technical session included deliberation on 'Safe Handling, Management & Containment of Chlorine' and a field demonstration of On-site Emergency Preparedness, in the form of mock-drill, to give a live feel to the participants of emergency tackling operations. Before the start of Technical Session, the students of OPM School, Amlai played an enchanting and absorbing musical chorus on Saraswati Vandana and Madhya Pradesh song.

The 1st technical session was opened with the deliberation by Shri TEC Vidyasagar, who spoke on 'Planning & Preparedness for effective chemical emergency response'. He made an elaboration on statutory as well as corporate importance of on-site emergency plan (OSEP) and explained its

various components which need to be essentially considered while preparing the same. The OSEP preparation and its regular evaluation was also discussed with the participants. While talking about chemical emergencies, he also illustrated, with the help of case studies, various types of industrial emergencies and their possible consequences which may occur in sectors such as petrochemical plants, chemical industries, pharmaceutical units, textile establishments etc. The deliberation also included safety aspects related with Coal Bedded Methane projects which are expected to come up in this area of Madhya Pradesh in future.

The other expert faculty member Shri H.S. Das, Head HSE, AMAI, New Delhi, spoke on 'Case Studies on Chlorine hazard and Operation of Chlorine Network in the country'. His presentation also covered various topics such as AMAI activities, availability of chlorine in India, chlorine in our life, use of chlorine for water disinfection etc. The presentation on case studies of chlorine incidents and establishment of Chlorine Emergency Response Network (CERN) in the country was quite informative and beneficial to the participants. He explained how the CERN activates and effectively functions in times of chlorine related incidents in the country through its 33 nodal centres, some of which are equipped with sophisticated mobile technology to take care of chlorine leakage/spillage by scrubbing and neutralization at the site itself.

The second technical session began with the presentation by the guest expert Shri H.S. Sehgal, former DGM, M/s GACL, Vadodara who spoke on 'Safe Handling, Management & Containment of Chlorine'. He presented in detail on chlorine safety and precautions that should be observed by chlorine users for safe handling of tonners and immediate actions that should be taken in case of any mishap. Various components of a tonner and their safety standards, handling protocol at the time of storage, transportation and leakage were also covered in the presentation. General precautions and the complex

technicalities involved in the chlorine handling were also talked. Technical queries from participants were also responded during the session.

This presentation was followed by 'field demonstration of on-site management plan and mock-exercise at M/s HJI, Amlai' to give a practical exposure of emergency operation to the trainee participants. The exercise was also aimed to assess the strength and weaknesses of the emergency management plan. The review of the mock-drill was done by expert Shri TEC Vidyasagar and Shri H.S. Sehgal and Shri H.S. Das.

The scenario was the leakage of Chlorine gas from the storage tank. The emergency was initiated by blowing emergency siren which triggered various emergency actions by the concerned staff as stipulated in the emergency plan. The medical staff and ambulance were also pressed into service to lift and carry the injured personnel affected due to chlorine spillage. The response of management and field preparedness of safety team were tested during the drill.

Review of the mock-drill and the process of post event analysis was facilitated by Shri TEC Vidyasagar, Shri H.S. Das and Shri H.S. Sehgal. The gaps and lapses observed in the emergency management and the actual conduct of the mock-drill were discussed in detail along with the tips for the improvement.

An exhibition on chemical safety and personal protective equipment was arranged by M/s Orient Paper Mill, Amali for the participants to get an exposure to safety gadgets useful for handling and tackling chemical emergencies. The safety kits for detection and handling of chlorine leakage from chlorine tonners/cylinders were also part of exhibition.

A compilation of comprehensive course material was distributed to the delegates in soft form which included all the relevant Acts and Rules dealing

with hazardous chemicals, safe handling and management of chlorine, material safety data sheets of all the regulated chemicals, information on poison chemicals, pesticides, petroleum products, relevant material on industrial and process safety etc.

The feedback received from the participants indicated their keen interests in such theme based training programmes. The certificate of participation was awarded to individual participant during the valedictory session.

Dr. Rajendra Chaturvedi, Scientist, ERC conducted the entire activity. The programme concluded with distribution of certificate of participation to the delegates followed by thanks to the Chair, dignitaries, Environment & Safety wing of M/s Orient Paper Mill, Amlai and the participants by Shri Manoj Jain, Chemist, Emergency Response Centre, Bhopal.



Welcome address and the Opening Remarks



Audience engrossed in the deliberations during Technical sessions



Technical Session in Progress





Banner display at Workshop Venue



Delegates at Field Demonstration Site



Demonstration of Emergency Preparedness Skills and Evaluation of Mock-drill



Awareness-cum-Training Workshop on
On-site Emergency Planning and Chlorine Safety
 Friday, 27th September 2013

Venue – Conference Hall, M/s Orient Paper Mills, Amlai, Dist. Shahdol

Programme		
09.00 - 09.45 a.m.		ATION
09.45 - 10.45 a.m.	Inaugural Session	
09.45 - 09.55 a.m.	Welcome address	Shri N. K. Saha, Vice President / CEO, M/s Orient Paper Mills, Amlai
09.55 - 10.10 a.m.	Opening Remarks and ERC Overview	Dr. Gunwant Joshi, Chief Chemist, Emergency Response Centre, MPPCB, Bhopal
10.10 - 10.25 a.m.	Address from the Guest of honour	The Collector & Head, District Crisis Group, Shahdol
10.25 - 10.35 a.m.	Address by the Chief Guest	Dr. N.P. Shukla, Chairman, M.P. Pollution Control Board
10.35 - 10.40 a.m.	Vote of Thanks	Shri Alok Jain, Regional Officer, M.P. Pollution Control Board, Shahdol
10.40 - 11.00 a.m. High - Tea	
	<u>Technical Session I & Discussion</u>	
11.00 - 01.00 p.m.	1. "Planning & Preparedness for effective Chemical Emergency Response " by Shri TEC Vidyasagar, Ex.- Dy. Chief Inspector of Factories, Govt of A.P.	
01.00 - 02.00 p.m.	2. "Case Studies on Chlorine Hazard and Operation of Chlorine Network in India", by Shri H.S. Das, Joint Director & Head HSE, AMAI, New Delhi	
02.00 - 02.30 p.m. Lunch Break	
	<u>Technical Session II & Discussion</u>	
02.30 - 04.30 p.m.	1. "Safe Handling, Management & Containment of Chlorine" by Shri H.S. Sehgal, Ex. DGM, M/s Gujarat Alkali & Chemicals Ltd., Vadodara.	
04.30 - 05.15 p.m.	2. "Field Demonstration of On-site Emergency Preparedness (<u>Mock-drill</u>)" By Safety & Environment Teams of M/s H.J.I., and M/s O.P.M., Amlai, followed by reviewal and analysis by the guest experts.	
05.15 - 05.45 p.m. Discussions / Valedictory Session followed by Tea	

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