

Presidential Address
26th DAE Safety Professionals' Meet at VECC, Kolkata on 16 November 2009



S.K. Chande
Vice Chairman, AERB

Good morning.

At the outset let me extend a warm welcome to all the dignitaries on dais.

(Dr. Anil Kakodkar, Prof. Bikash Sinha, Dr. R.K.Bhandari, Shri R. Bhattacharya, Shri Subimal Saha)

The theme of this year's meet, as you know is Cryogenic and Electrical Safety and we are extremely fortunate to have Dr. Philippe Lebrun among us today. Dr. Lebrun is a renowned expert in cryogenic safety. He has travelled all the way from CERN, Geneva and would be delivering the endowment lecture this year. I welcome you sir to this meet.

This meet has always been a very special occasion, where leaders and experts from various DAE units participate and share their experiences. This meet is no exception. I can see Shri A.L.N. Rao, Chairman & Chief Executive, Heavy Water Board; Shri R. N. Jayaraj, Chief Executive, Nuclear Fuel Complex; Shri Prabhat Kumar, Project Director, BHAVINI, NPCIL; Dr. P.T.V. Nair, Shri H.S. Khushwaha, Director, Health & Safety Group, BARC and many others who are present here. Assembled here today are not only the dedicated safety and occupational health professionals of DAE, but also many renowned experts from various fields of safety and occupational health. They would be sharing their thoughts and experiences with us during this meet.

I am also very glad to note that this is the first time when DAE aided units, namely Saha Institute of Nuclear Physics-Kolkata, Tata Institute of Fundamental Research-Mumbai, Institute of Physics-Bhubaneswar, Institute of Plasma Research-Ahmedabad, Institute of Mathematical Sciences-Chennai, Harish Chandra Research Institute-Allahabad and Tata Memorial Centre-Mumbai are participating in this meet.

It is a pleasure to welcome you all to this 26th DAE Safety and Occupational Health Professionals Meet.

Words of Thanks to Dr. Anil Kakodkar

Before I proceed further, I would like to say a few words about our respected and beloved Chairman, AEC, Dr. Kakodkar. Dr. Kakodkar has a very long association with this meet. Since 2001, when he assumed the charge as Secretary DAE & Chairman, AEC, he attended all the meetings except the last year's. For Dr. Kakodkar, safety and safety regulation have a very high priority. When BARC facilities were separated from the purview of AERB in 2000, Dr. Kakodkar insisted that the codes & guides of AERB should be followed in BARC facilities as well. His inaugural addresses from this forum have always been inspiring and encouraging.

At AERB, we feel privileged to have his support and advice whenever we need it. In his last year's address during the Silver Jubilee year celebrations of AERB, Dr. Kakodkar had enumerated various challenges the regulatory body should prepare for and provided valuable guidance for strengthening the safety regulation in the country. He had also stressed the need of evolving flexible nature of regulation to take account of new developments and different techniques.

I take this opportunity to convey on behalf of all safety professionals, on behalf of AERB and on my own behalf, our immense admiration and our sincere gratitude, Dear Sir, while we wish you further success and more laurels, which I am sure will come your way, we will continue to seek your support and encouragement in the years to come.

Relevance of the themes of this year's Meet.

As I mentioned earlier, the theme of this year's Meet is 'Cryogenic Safety, Electrical Safety & Ergonomics at work place'.

Applications of cryogenics have significantly increased in recent years in many DAE installations. Superconducting Cyclotron of VECC is one example. Hence for this meet in VECC, 'cryogenic safety' as one of the themes is very appropriate. The safety professionals can visit the Cyclotron and get first hand information on the safety aspects of handling and storage of cryogens. It is heartening to note that renowned experts from IIS, Bangalore, IPR, Ahmedabad and VECC will be delivering talks on this topic. We also have received a good number of contributed papers on cryogenic safety from various DAE units.

The other subject of this year's theme is Electrical Safety. There have been some serious accidents in recent times in DAE units pertaining to lapses in Electrical Safety. Though safety requirements for electrical systems are well established, serious accidents involving electricity continue to happen. In view of this, we felt it appropriate to refresh our knowledge on the subject. Towards this, we have lectures from eminent speakers from IIT, Kharagpur, DCSEM, Mumbai and VECC, Kolkata.

'Ergonomics at Workplace' is an emerging topic in occupational health. I hope that this Meet will provide ample scope for discussions on this topic. We have invited distinguished occupational health professionals from Reliance Industries Ltd., Navi Mumbai, Apollo Gleneagles Hospital, Kolkata and All India Institute of Hygiene & Public Health, Kolkata to deliver talks on this topic.

Status of Industrial Safety in DAE Units

Let me now briefly take stock of the status of industrial safety in DAE units during the previous year. Significant improvement in industrial safety in DAE units under the purview of AERB was seen during the year 2008 as can be seen from the industrial safety statistics. The construction sites which were the main areas of concern have done well in that period. This was possibly achieved through systematic implementation of several measures by site and plant authorities and at corporate level. AERB too had taken several measures both preventive and punitive to strengthen the industrial safety at DAE units. Major among them were

- 'Discussion meeting on Industrial Safety with focus on Fatal Accidents' with senior management of DAE units.
- Monthly regulatory inspections of nuclear project construction sites of DAE units.

We also had taken certain enforcement actions, which included

- Suspension of all jobs involving work at height at all construction sites until detailed review of work practices for working at heights is carried out by senior management.
- Suspension of work for one week at construction site due to unacceptable industrial safety performance.

All these actions appeared to have an effect and we had no fatal accident during 16 month period from July 2007 to November 2008. Last year however, the situation in 2009 has turned grim again as till date there have been three fatalities at construction sites and five fatalities in a single fire accident at an industrial unit because of non-adherence to standard operating procedures. I am particularly pained by the fire incident, not only because several innocent lives were lost, but also because the accident was caused by negligence and disregard to safety regulations. Concerned by the fall in the industrial safety standards during the year, in October 2009, Chairman, AERB has written to all DAE units reiterating the necessity of ensuring high standards of industrial safety in all DAE units.

Summary Report on Major Unusual Occurrences in DAE Units

In the wake of this surge in the fatal accident rate in the period December 2008 to October 2009, we decided to compile and analyze the fatal accidents and also the other major unusual occurrences over the past 5 years (2005 – 2009). A summary report containing the statistical analysis, root causes & lessons learnt from the accidents during this period has been prepared.

This report includes brief description of the major industrial safety accidents and also describes the initiatives and actions taken by AERB for improvement of industrial safety. Let me share some of the important points from this report.

- Safety as function of line management is not fully established in the DAE units. In many units it is still treated as the responsibility of the Safety Department
- Other than NPCIL, safety is not addressed at contract stage by other DAE units.
- The implementation of safety provisions at sub-contractor and petty contractor level is not satisfactory
- Sometimes Safety management systems like work permit system, height pass system, etc. are bypassed or ignored resulting in unsafe working conditions and unsafe acts.
- Safety supervision by the department safety staff still needs improvement.
- Work at height continues to remain a concern as brought out in several regulatory inspections.

It was felt that the Safety Professionals Meet would be the correct platform to release this booklet so as to disseminate the findings of this report to the larger receptive and responsible audience. I request all the safety professionals to go through this report and ensure that similar accidents do not occur again. I also ask the top management to ensure compliance to the recommendations made at the end of the report.

In the wake of the Civil Nuclear Co-operation Agreement often I am asked has AERB would be dealing with proposal for construction of several new NPPs of different designs. With experience of review of Kudankulam NPPs of Russian design, we have evolved an appropriate approach and procedure for such reviews. Our people now have the necessary experiences and competence. In addition we have the huge technical support from BARC and IGCAR which this makes me confident of dealing with the review of nuclear safety, I am worried about industrial safety when such huge construction activities will be started at different locations at the same time.

Green Site Award

Every year AERB announces and gives away three safety awards- industrial safety, fire safety and green site. The first two awards were given away in March and April this year.

The green site award is announced and given during the safety professionals meet. The green site award committee considers various factors like effective site area, efforts taken to improve the greenery etc. The winner of the award this year is

- Category – A: Indian Rare Earths Limited, Manavalakurichi
- Category – B: Kakrapar Atomic Power Station

I congratulate the winning facilities again.

Concluding Remarks

Before I conclude I must make a mention of enormous efforts taken by the organizers for organizing such a meeting, which involves meticulous planning and implementation. Enormous efforts have been put up by various committees in organizing this meet. I would specially like to compliment VECC and Industrial Plants Safety Division of AERB for all the impeccable work done. I would also like to thank VECC for agreeing to host the meet.

I am sure that this three-day meet will be useful in sharing of information and innovative ideas towards enhancing the industrial and occupational safety in DAE units. I wish the meet a grand success.

Thank you.
