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Session I: Safety

Safety - Conceived by heart, designed by brain



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Mr. Dutta has 29 years of Experience in all fields of Manufacturing and Supply Chain in Chemical Industry. He had worked in Production, Projects, Purchase, Quality Assurance, EHS. in India as well as in Global roles. He was also a member of Integration team in M&A.

Mr. Dutta has worked in various companies like Phillips Carbon Black Ltd (RPG Group), Navin Fluorine International (Arvind Mafatlal Group), Wacker Silicone (A German MNC), UPL Limited and Atul Limited. He is also associated as Governing Body member of UPL University, Ex-Governing Body member of IIP (Indian Institute of Packaging) and Ex-Member of ARES – NGO for various Educational Institutes in India



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Abstract

Industrial safety management is all about how you create and maintain a work environment that is both safe and efficient. The brain will always look at cost effectiveness first whereas, the heart will guide to assess all failure modes. For example, for any exothermic synthesis environment, the PSI to be generated is RC study followed by DSC and ARC of the main reaction system at the reaction condition. But is this one data sufficient!! The brain is tuned to respond yes it is sufficient. But let's understand the possible failure modes like the effect of temperature, catalyst loading and time. The brain convinces us of the cost optimization while heart encourages us to spend this additional cost for the rest of the PSI generation. It is necessary to understand key risks in a business continuity like safety, environment, quality, productivity and cost. For example, we will be at risk of consumption of bad quality agrochemicals. An accident at a workplace can harm employees, the nearby residents suffer from chronic diseases caused by release of toxic gases. Hence, business continuity will be at risk due to safety, environmental and quality regulations and forcing us to shut down. Hence it is imperative that safety, environment and quality start from heart and not from brain.

Safety is not only limited to industry but also applicable in our day-to-day life and we have been exposed to safety lessons right from our childhood. For example, a child under two years of age is most vulnerable to accidents, but they are not facing the possible accidents as the biggest safety officer-our Mother keeps her child safe from all possible accidents. Is she an engineer, is she a safety qualified person or is she a trained safety officer? Again, the answer is No, but still, she creates safe environment because of the sense of care she has for her child. Sense of care starts from heart, not from brain. Safety is not about panic but it is all about balancing risk judiciously. When a mother helps her kid to learn to bicycle she will never leave holding the bicycle from behind because she is afraid of the risk of falling but father will take that risk as he wants that the kid to learn the bicycle. Another example is outstation travel for education. The mother would not want to send the kids away for education but father with heavy heart will take that risk and send the kids to faraway locations for higher education. The difference is that generally mothers are associated with risk averse while fathers are associated with risk takers. So safety is about being a combination of mother-father which is proactively balancing the risk taking approach.

God has designed a biological system within ourselves that gives us alerts in advance so that all accidents can be prevented. This is an involuntary action that can be considered as near miss warning. It is the palpitation of our heart which gives us signal whenever the situation is not favourable. I feel if we improve our sense of empathy for people who may be affected by accidents/incidents, we will always be able to catch this beautiful gift of God. One common initiative across all industries for safety at workplace is 'Roko-Toko'. If 'Roko-Toko' has to be done by brain then the observer of any activity will refer to some already defined standards and then only he will decide to allow to continue the operation or stop it.

Normally, we thoroughly discuss, finalize and incorporate sufficient safety measures at process/product and equipment design stage and at the time of designing process controls. But we don't give enough thought and time to design the manual work operations. Here we need to bring element of heart so that in all manual work we must incorporate Job Design and HIRA so that even the helpers remain safe. We should be clear about what we contribute to safety so we can align our beliefs, attitude and behaviour accordingly.

We have enough technical training to improve safety but the need of the day is to how we can bring everyone's heart into safety as a starting point. I strongly believe that if we start looking at safety from heart, 100% of accidents can be prevented. In Indian context we use this phrase 'Har Insaan Ke Dil Me Rab Basta Hai' it means each one's heart is the home of God where he resides. So anything which initiates from heart is designed by God and can never go wrong. Reinforcing my belief in this philosophy, again is an example of a mother. God is most comfortable residing in mother's heart that is why they are the best safety managers in the world.