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## CRITICAL REVIEW OF MANAGING BEHAVIOURAL SAFETY CULTURE IN INDIAN INDUSTRY: EXTRACTS FROM A LONGITUDINAL ACTION RESEARCH

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### ABSTRACT

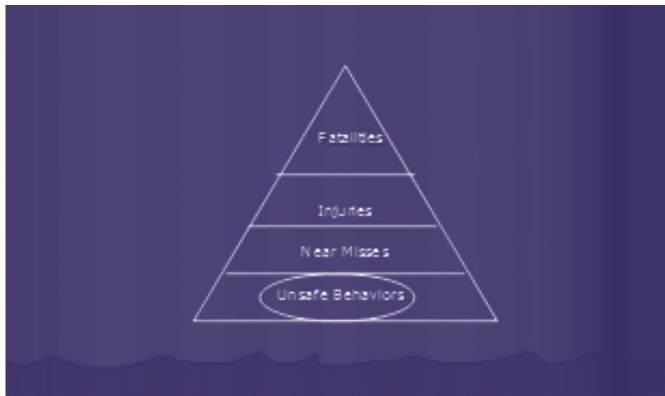
Indian industry on an average has nearly 30% at-risk behaviors which is an early warning assessment to derive that it would have accidents almost everyday. At the same time, it can also be assured that it would achieve zero-harm goal, if it does full implementation of Behavioural Safety at its sites and undoubtedly zero-harm is a gain for national economy. This research paper (based on 12 Indian case studies) depicts the success of safety cultural transformation and identifies how organizations are managing their manpower's at-risk behaviours at sites. An objective behind this work is to bring together the field-tested knowledge in the implementation of behavioural safety across sites. These brief cases from diverse organizations across industrial sectors such as oil, gas, petroleum, chemicals, power, automobile, construction and aluminium across Indian locations, revealed the best practices, experiences and challenges during their BBS implementation journey.

**KEYWORDS:** Implementation, Behavioural safety, Training, Industry, Safety culture

### 1. INTRODUCTION

Behavioural Safety approach postulates that unsafe behaviors are at the base of any near misses, injury, fatalities. If unsafe behaviors are controlled, even the near misses can be avoided (figure below).

BBS triangle



(source: Kaila, 2010)

Most of the safety management systems have aimed at controlling unsafe conditions, whereas almost 100% of accidents are triggered by unsafe acts or behaviors (Kaila, 2014; Marsh et al. 1998; Algera, 1990; Pettinger, 2001). Even unsafe conditions are nothing but the result of unsafe behaviours. It is important for workers and safety personnel to prevent and minimize the consequences of catastrophic releases of toxic, reactive, flammable, or explosive chemical substances, which result in toxic or explosive hazards (Dikshith, 2013). 'Safety First' is only a slogan in Indian industry; it does not appear in practice. Organizations are challenged every day to produce a safety culture characterized by a continual drive toward the goal of maximum attainable safety, one in which errors and incidents are not only reported, but are evaluated transparently (Niurka Rivero, Beth Zemetra and Cynde Herman, 2014).

Globally, achieving zero accident at the workplace remains one of the major social and economic areas of concern. Every day, 6,300 people die as a result of occupational accidents or work-related diseases - more than 2.3 million deaths per year (International Labour Organization, 2013). The concept of zero-accident (JICOSH, 2013) refers to the total participation campaign into the organization which sounds attractive in a theoretical sense. But practically, zero-accident seems a far-fetched promise of business managements as human safety would not get an absolute preference over profits from production.

All renowned safety awards and certifications to organizations instituted by the reputed institutions in the country are questionable when on an average, about 30% at-risk behaviours are being practiced by the people at workplaces. According to a head of the chemical plants, "sometimes we all agree to about 5% tolerance of safety deviations, which gradually turns out to be much higher in reality, so unless we all behaviourally and truly lead to practice zero tolerance towards safety violations, we can't tenure safety culture and accidents would continue to happen as its happening" (Forum of Behavioural Safety, 2017).

Across the globe, it is now a well established fact that unsafe behaviour is the root-cause of almost all accidents. The Behaviour Based Safety (BBS) as an application of Behavioural Science has been widely implemented by most of the progressive industrial organizations. Behaviour Based Safety which aims to improve the safety culture leading to improved safety performance and increased productivity of an organisation, is a useful tool that involves mechanisms such as: awareness and assessment of existing state of safety culture; observation of employee behaviour that has a direct bearing on the social, economic, cultural and legal aspects - their habits, beliefs, convictions etc.; interaction with the employees on the observation feedback and soliciting their voluntary involvement; and finally, recognizing and celebrating achievements and success (OHSAS 18001, 2007).

BBS is drawn from the concepts of repeated exposure to employees for safe behaviours stimuli from colleagues which act as a strong group influence, and the company is geared up to achieve interdependent safety culture involving everyone. The ten basics of BBS for Converting Safety Compliance to Safety Culture are (Kaila, 2010):

1. BBS is uncomplicating safety implementation.
2. BBS is dehierchizing safety implementation.
3. BBS is involving top to bottom.
4. BBS is spot correction of at-risk behaviour.
5. BBS is creating interdependent safety culture.
6. BBS is achieving zero unsafe behaviour.
7. BBS is personalizing correction of at-risk behaviour.
8. BBS is accounting safe and unsafe behaviour each month.
9. BBS is continuous journey.
10. Finally, BBS is saving human life and business both.

The following brief 12 case studies of diverse organizations reflect on these basic 10 tenets of BBS described above explaining what BBS means and how it works, and how the implementations at each location were similar and different.

## 2. RESEARCH OBJECTIVES

The purpose and rationale of bringing together the field-tested knowledge in the implementation of behavioural safety is that the experinces of organizations that implemented BBS would guide other corporates that are struggling to achieve zero incidents and better safety cultre for saving both lives and business from accidents.

## 3. METHODOLOGY

This paper is an interdisciplinary intervention of Behavioural Science, management and safety which is part of an ongoing national longitudinal action survey in India. Thematic data analysis was used to reflect the findings as mentioned herebelow. Steps used in thematic analysis were: 1: Become familiar with the data, 2: Generate themes, 3: Review themes, 4: Define themes, 5: Write-up. Reading and re-reading the transcripts is most important in the thematic analysis.

The BBS programme as part of this action survey was implemented in diverse locations in India for employees of multinational companies that were trained as BBS mentors and observers over a period of past 10 years. This programme included the concept and process of BBS, plant visits for observation and correction of at-risk behaviours, developing road map for implementation of BBS, linking BBS with safety systems such as hazard identification, accident investigation and safety audits, developing training module for imparting training to all employees, formation and functions of BBS steering team. The training participants included managers, heads of departments, contractors, safety officers and contractors staff from across the plants.

12 case studies (both primary and secondary) were collected from diverse organizations on the best experiences and challenges during the BBS implementation journey in their respective units belonging to public and private industrial sectors such as gas, petroleum, oil, chemicals, automobile, construction, power, and aluminium across Indian locations. There are more than 100 corporates that implemented BBS in India. These corporate cases were selected as representative based on the 20-point criteria below:

BBS Implementation Actions Followed for your Plant/Site in terms of:
<ol style="list-style-type: none"> <li>1. Monthly Circular of CEO / Plant Head to all employees for BBS project implementation;</li> <li>2. Formation of BBS Teams for every plant/site and regular monthly meeting of BBS Steering Team;</li> <li>3. Inauguration of BBS programme by top /senior management;</li> <li>4. Announcing BBS inaugural ceremony on company portal as corporate initiative;</li> </ol>
<ol style="list-style-type: none"> <li>5. Conducting BBS observers' practical training for all employees/workmen at plant /site</li> <li>6. Displaying BBS banners and posters across all work and office areas.</li> <li>7. Ensuring strong leadership drive by all HODs for BBS activities.</li> <li>8. Fixing BBS training budget;</li> </ol>
<ol style="list-style-type: none"> <li>9. Developing IT enabled BBS observation checklist;</li> <li>10. Allocation of BBS observers to each shift/area, and Ensuring daily observation rounds by trained observers;</li> <li>11. Issuing BBS sticker for observers' identity to all trained observers;</li> </ol>

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|---|
| 12. Compliance with proceedings of Steering Team (ST) meetings;               |
| 13. Linking BBS with PMS; EHS Policy and Annual Index;                        |
| 14. Conducting quarterly internal BBS review across departments/sites         |
| 15. BBS Monthly Score Board to display behavioural trends across plant;       |
| 16. Comparing safety statistics every quarter before /after launch of BBS;    |
| 17. Developing Employee road safety behaviour correction program;             |
| 18. Conducting BBS awareness for employees families;                          |
| 19. Including BBS Rules in vendor's terms and conditions;                     |
| 20. Rewarding monthly best observers based on maximum number of observations. |

#### 4. THE STUDY RESULTS

Following are the summarized results of the qualitative case studies on the Best Experiences, Practices and Challenges of BBS implementation at reputed Organizations in India (Forum of Behavioural Safety, 2018).

1. Sustaining Behaviour Based Safety drive implementation is a big challenge (GAIL India, 2014). Corporate Steering Committee and Task Force were constituted at Corporate Level to oversee the BBS implementation. Site steering committee, functional committees and lead trainers were developed to further drive BBS at respective sites. Till date safe behaviours have gradually increased up to 90% from base data of 65% leading to last two incident free years. Sustaining high levels of "Behaviour Based Safety" implementation is a challenge, which we face today.

2. How BBS is significant for our organization? We initiated BBS philosophy as a tool to achieve the target of Zero Accident. As we know "A single risk might mean an accident from which we might never recover." Make every one responsible for their own and team safety (Geller, 2004). The essence of BBS is "safety control" in the hand of each employee, they feel empowered and responsible.

3. This intervention on Behaviour based safety has been christened as "SACHET". SACHET aimed at enabling safe workplace for all employees by creating a culture of Safety. Culture is related to attitude of an individual which is internal whereas behavior is external. SACHET aims to strengthen the attitude of every individual (workers/employees) and thereby create a safe behavior which will lead to "Zero Tolerance" towards unsafe acts at workplace. Results revealed that in the first three months, the at-risk behaviours reduced by 40%. BBS Index enhanced from 72% to 83% in a span of 1 year.

4. At its very core BBS is based on a larger scientific field called organizational behavior management (Mingzong Zhang, Dongping Fang, 2013). For improving the safety culture of the organization since industrial revolution,

various approaches have been tried to enhance the safety culture of the organization. Some of the approaches involve penalties; others involve surveillance; others involve guidance, codes and procedures to follow; others still are supportive and training-oriented. However, the methods being traditionally employed have had comparatively less success as the approach is mostly by Fear. BBS offers a paradigm shift in the existing approach to safety by being more people centric. A successful BBS program includes all employees, from the Head Office, Regional Office, State Office, Location-in-charge, safety officer and front line workers including daily wage, salary, union employees, contractors and sub-contractors.

5. Studies suggest that all disabling accidents are the result of employee behaviours and to achieve the coveted goal of "zero accident", a 'Culture Change' is a must and that can only occur when each employee takes his safety responsibility and performs functions safely. It is thus prudent that we should now adopt BBS as a tool for recognising, measuring and monitoring unsafe behaviour or what is called 'at-risk behaviour' in our workplaces in order to bring cultural change in the way we do things in our day-to-day operations. In fact, Behaviour-Based Safety is the safety performance management by workforce through behaviour observations and root cause analysis.

6. Tata Projects conducted leadership engagement workshop across the Indian Project sites to facilitate the design of a Safety observation program and set the platform for the launch of the Behavioural Based safety initiative. All facilities across the region initiated a Safety Zoning to engage a cross functional Team in a Safety Observation program to commit to a weekly Gemba walkthrough looking out for Safe/At risk Behaviours and Unsafe Conditions. This Model was centrally designed for a phased rollout at a Regional Conference and piloted across the locations. The total Number of Incident Prevention Opportunities recorded by Zonal members through the process of safety observation program across the region increased exponentially, sowing the seeds for an openness and transparency in reporting safety observations leading to an increased risk perception



through safe behaviours with enhanced situational awareness thus setting the platform for a sustainable safety culture.

7. Forum of Behavioural Safety (2018) organized its 2nd Annual National Conference for spreading BBS awareness in India with a motto of making Bharat Bane Surakshit which is in line with our Prime Minister's appeal to all Indians on Swachha Bharat Abhiyan. Both initiatives will take Bharat towards Safe and healthy building of our nation. At Bajaj Auto, BBS project implementation started by briefing to all employees about BBS movement in the entire plant through circular. Trained 40 BBS observers conducted behaviour observation feedback process (BOFP) and observed number of unsafe/safe behaviours and unsafe conditions in machine shop. After spot-corrections of observed risk behaviour, our safe behaviour percentage went beyond 90%.

8. The management of Vedanta decided to launch BBS program in 2013. We sought the services of a BBS expert who trained 440 BBS observers across the location. COO of Vedanta also launched online portal for BBS observation reporting. BBS Steering teams (consisting of management and employees representatives) were formed both at SBU and Apex level. During the journey of last four years, the incident trend reduced drastically and safety leading indicators graph went up. In the year 2016, we conducted BBS program audit by third party and further implemented the recommendations to strengthen our BBS program. And the journey continues.

9. Pidilite Industries followed three stages in BBS implementation. Initial Stage -1: Peoples are not aware about what is BBS. Awareness Stage -2: Awareness session organized in units about BBS to fulfill gaps. Final Stage -3 (Results) include: internal fear vanished; internal trainers developed; participation of people increased; contractors /staff giving training as a regular practice; and no major incident in units.

10. India Glycols implemented BBS under the guidance of a expert. It was launched under the programme named "Bhavishy Banaye Surakshit (BBS)" in November 2012. The name of the programme and its logo were selected from the suggestions invited from our employees. We awarded the employee who suggested the chosen name. Visible/ positive changes have been observed in complying with basic PPEs usage and in maintaining safe practices and conditions. Unsafe acts and conditions have come down significantly.

11. Compromising with any at-risk behaviour over time will have a snowball effect in your organization. In order to

continuously work towards encouraging, imbibing and reinforcing safety habits within our workplace, SEIL decided to integrate BBS into safety systems. As on date, 115 employees including HODs and 110 associates have undergone training in BBS to spearhead this movement. We plan to train our entire workforce within next 12 months to have 1400 pairs of eyes to spot correct unsafe behaviours. The BBS action plan and BBS Steering Committee is announced by Head of Business Unit to ensure that Sembcorp Energy India continues to be a safe place to work. BBS Strategy is to move from 'Awareness to Accountability' of correction procedure of all in order to establishing an interdependent safety culture.

12. Bhopal Gas Tragedy, resulted into death of 2,259 people residing around the plant. Was it possible to prevent this incident by following BBS approach? The managers experienced in dealing with methyl isocyanate were often replaced by less qualified personnel, sometimes transfers from Union Carbide battery factories, which are less complex and potentially dangerous than methyl isocyanate operations – Behavior of HR. Safety training practices were deteriorated. The operator, who washed the improperly sealed pipe a few hours before the accident, was trained for one particular area and one particular job. He was unaware about other jobs – Behavior of Training. Several months before the accident, managers shut down a refrigeration unit designed to keep the methyl isocyanate cool and inhibit chemical reactions – Behavior of Manager. These unsafe behaviors resulted into world's one of the major industrial disaster (Padgal, 2017). The Government, relevant agencies and the people at management levels must understand that BBS not only saves life but the economy as well. Every organization ought to conduct monthly/quarterly internal as well as external BBS audit for each site or plant, as most companies indicate on an average 30% at-risk behaviors (before BBS implementation). This is in favour of saving life and business.

## 5. REFLECTIONS AND RECOMMENDATIONS

Comparing and reflecting on the results of above cases, the following themes emerge.

### 5.1 Measuring Behavioural Safety

Table-1 indicates an Indian average of 72.38% of safe behaviour, 27.62% of at-risk behaviour-out of which 67.63% of at-risk behaviour were corrected by observers who participated in BBS programs between May 2011 and Feb 2018 from amongst various organizations such as oil & gas, construction, chemicals, manufacturing etc.

**Table-1: Behavioural trends of safe behaviour and at-risk behaviour**

Organization	% of Safe behaviour	% of At-risk behaviour	% of At-risk behaviour corrected	Units/group	Number of observers
1	64	36	89	Sr. mgt.	200
2	78	22	69	Sr. mgt.	290
3	79	21	94	md. mgt.	240
4	83	17	63	Managers	300
5	87	13	74	Managers	310
6	76	24	42	HODs	270
7	79	21	79	Supervisors	420
8	62	38	74	Executives	260
9	72	28	52	Executives	210
10	71	29	53	Executives	300
11	64	36	67	Executives	290
12	68	32	77	HODs	180
13	47	53	43	HODs	400
14	80	20	60	HODs	20
15	67	33	66	Sr. mgt.	320
16	81	19	80	md. mgt.	350
	72.38	27.62	67.63		Total: 4540

The above data makes a strong case for BBS implementation in Indian business organizations. The Behaviour Based Approaches need to be implemented from the top/ senior management levels. BBS, if implemented effectively, adds to inculcating the desired Safety Culture within the organization to achieve rich gains.

## 5.2 Indian Safety Mindset

Safety mindset is a reference to and reflection of the company's existing safety culture. Voices from the sites reveal certain aspects of safety cultural mindset. An EHS professional said, "senior management of Indian companies have still not understood the benefits of BBS, so they remain far from zero incident mechanism". An HSE general manager said, "workers lack awareness, management lacks commitment, as a result of which, incidents continue".

The difference between your judgment of safe and unsafe is the safety mindset, which requires change of your perception and for everyone in the organization which would help change safety culture. Managers at all levels across Indian organizations vary in their safety mindsets, values, priorities; hence implementation in behavior gets slower. Uniformity of these mindsets of top leaders is essential to savings from incidents. In whatever position you all are in your organization, just keep spreading the concept of BBS daily to a small group of workmen at the site, you would see that BBS is getting implemented. This should be your action plan if you wish to create BBS mindset.

The difference between the Indian safety mindset and safety behaviours are being narrowed down. Indian Corporates have now recognized that the unsafe behaviours of employees greatly Note: this table is an extract of a larger study (Kaila, 2011, 2018).

hit the company's business and its balance sheet, and it is hoped that people at workplace would involve to put their efforts to prevent the pain, suffering and financial losses brought about by accidents and related injuries at work (Health and Safety Executive, 2005). Zero accidents/injuries perspective requires a host of change management strategies and initiatives for shifting existing safety situation to a new level, which would need a stringent review of the prevalent safety systems and implementation of the latest behavioural safety approach (Matthews, Grainne A. 2013). Zero accidents/total safety culture means a total participation campaign in an organisation (Japan International Center for Occupational Safety and Health, 2013).

## 5.3 Active Leadership on the ground

Active Leadership for behaviouralization of safety implementation in industry is an urgent call without which the loss of life and business would be a regular affair. According to a senior safety professional with 20 years of experience, production priority of top management remains a great challenge for BBS implementation in Indian industry. Mostly, safety systems in Indian organizations have served as documentation formalities and not so much practiced in safe behaviour of employees. Mostly, safety systems in Indian organizations have served as documentation formalities and not so much practiced in safe behaviour of employees. The Indian safety professionals agree that the management's priority is their cost and production, safety comes in picture if they face incidents or dangerous consequences. According to Health and Safety Executive (2013), the leadership focus is on production-not-safety and cost considerations of safety. The credibility of safety awards/certifications for organizations can also be questioned.

In fact, safety certifications/awards have kept industries in dark that they are safe in the absence of accounting of safe/unsafe behaviours. Almost all Industrial safety audits and reviews have reflected the need for behavioural safety programs (Kaila, 2017). An EHS expert expressed that if your organization wish to have zero incident achievement, then the CEO or MD of your company must clearly communicate to all, "Please don't allow any unsafe behavior nor give silent approval to it; at the same time, don't pass-by until it is corrected". This needs to be displayed at prominent places duly signed by the MD of the company.

#### 5.4 Organizational dynamics

Organizational behaviour dynamics is a deep concern in safety management. There's a real spilt in safety among the HODs about safe behaviours in organizations. The safety mindset of top management reflects in the behaviours of HODs. This needs to be addressed during the BBS steering teams and let each department present their BBS score to resolve this issue. At the same time, we need to underline that as long as profits drive safety, we would never achieve safety of people and business, rather lose both. We don't have prevention or proactive attitude towards safety. Building safety culture is a challenge for all safety professionals. Both safety systems and behavioural safety are needed. Safety culture comes by involvement of all, not by safety professionals alone. Thousands of new jobs are being created in construction/ infrastructure sites, and this new workforce with diverse backgrounds entering into sites are going to pose more challenge in building safety culture. Intentions of top management are good but implementation of safety does not happen. Somewhere BBS fails due to lack or change of leadership of top management. BBS succeeds when management leaders make observation rounds at site. It is extremely important that leaders and all managers make a BBS spot-correction round to their site/plant daily without fail in order to improve safety culture of the company. It would motivate everyone down the level (Kaila, 2013).

The opinions shared by safety professionals at the meeting on 21st March 2018 in Mumbai shed a host of practical issues such as, hiding accidents does not mean zero accidents. Safety does not mean only PPE. Controlling safety officer by the boss does not ensure zero incidents. Cost of accidents runs into crores whereas cost of prevention runs into thousand of rupees. On documents, we can deceive the auditors any way we like. Many a times, the safety officers are engaged in activities unrelated to safety function such as canteen, security, health, welfare etc. Negligence towards low income communities such as contract workmen is the key factor in corporate fatalities. The Managements need to understand that the world is no longer going to tolerate a casual approach to health and safety (Kaila, 2018).

ISO 45001 emphasizes that you measure your organization's risks and capacities for controlling those risks. Any organization has potential risk associated with the behavior of its leaders and its workforce. Important Caution here is that mere adoption of this ISO 45001 document, however, will not in itself guarantee prevention of work-related injury unless it becomes behaviour

of an organization. The secret of BBS depends upon the strength of group influence the observers create in changing the safety culture from compromising behaviours to compliance in an organization.

#### 5.5 Challenges of Behavioural Safety

The bigger challenge of behavioural safety is to involve top management to spending for removing the barriers to safe behaviours at work sites. Almost all organizations in India began behavioural safety intervention when they experienced that the accidents and fatalities at sites are unstoppable even after having all engineering controls and safety systems. It is also important to understand that mere launch of BBS in an organisation does not ensure zero incident until the top management navigate it for complete implementation. Some organizations are not able to achieve BBS successfully as because there are gaps in terms of action plan points developed for its implementation. Problems in spot-correction of unsafe behaviors include pressure from seniors and resources inadequacy at the site. It is recommended that all EHS officers should attend BBS program to convert from reactive safety culture to interdependent safety culture.

Lack of entire workforce buy-in to the concept of BBS has posed a major implementation issue in Indian industry. When most people are not participating in observation and correction process, it indicates that they are not yet sensitized convincingly. Normally, BBS lead trainers sensitize people down the level and if this does not happen in a planned manner, it becomes difficult to buy-in people into the BBS approach. Hence the correction culture takes time to settle in. At the same time, overemphasizing BBS documentation need to be avoided, this is a bottleneck.

When BBS system is already in place, it should be reinforced at corporate level for monitoring, reporting, supporting and rewarding. BBS workshops for all manpower would include gaps identifying and rectifying on the spot at each location; as well as virtual BBS re-orientations, support and assessments over video conferencing. This is majorly to achieve total correction culture.

The application of behavior-based safety (BBS) approach is facing a severe challenge that safety performance may decline when BBS intervention is removed (Mingzong Zhang, Dongping Fang, 2013). Cooper and Phillips (2004) cautioned that how complex the overall relationship is: changes in climate perceptions do not necessarily reflect changes in levels of behavioral safety performance. Equally, changes in safety behavior are not necessarily reflected in safety climate perceptions. The true safety leadership lies in not passing-by any unsafe behaviours/conditions unless they are corrected there and then which is a true connect for business and human life (Kaila, 2018a). It is seen that many organizations started off the BBS project, but the observation and spot-correction process is not actively happening; just because the managers around there did not pay attention or appreciate the observations. Hence one lesson learnt is that recognition and rewarding observations is absolutely important in any behavior based approach.



Some organizations are not able to achieve BBS successfully as because there are implementation gaps in terms of action plan points developed. BBS approach should not be overemphasizing more documentation rather achieve involvement of all workforce into corrections of at-risk behavior at sites through convincingly field-observation based workshops. In brief, the correction culture is to be reinforced at sites. Organizationally, BBS has to be a part of PMS and HSE policy/annual index.

### 5.6 The Strength of BBS is everyone: Top and Bottom both

In BBS, not only EHS but everyone can implement safety. Just don't be negative or reactive with workers, connect with positiveness. As because, in building safety culture, the role of bottom staff is maximum and of leaders is minimal. We can achieve over unsafe behaviours surely with behavioral science. Leadership role is to implement the ideas that the cost of safety is minimal in comparing with cost of accidents. But practically at site, when issues are highlighted by operation staff repeatedly, then only leaders or contractors spend for safety equipments. The contractors are never in loss by spending on safety as they handle many projects at a time and know the dynamics of loss and profit. It is also learnt that the junior safety staffs are not influential for making choices between cost and safety. Hence leaders have to be sensitive in safety decisions making and understand that when cost-cutting/profit prevails, safety suffers, people lose their lives.

BBS is a personal learning to behave safe and support building safer culture and environment to work in. According to a DGM-HR of a chemical plant, "the society is my workplace for BBS implementation. The moment we start doing BBS within ourselves, we become BBS Mentor/Implementer". It is a shared responsibility for saving of life of each person at workplace. BBS is simple and scientific but not easy as it requires continuity of leadership at organizations. Though BBS in India is at initial stage, it has reaped good measurable results. These case studies have clearly depicted as to how organizations successfully managed the at-risk behaviours of employees at work sites and maintained the interdependent safety culture which is the crux of BBS. The challenges are to sustain and knit BBS across all organizational hierarchies. These case studies are the powerful data and convincing guidelines to strengthen the mindset of organizations to venture into zero incidents zone for saving both life and business. However, the success of BBS would depend upon: a) what proportion of the workforce is trained in how to do BBS observation and feedback? b) what proportion of the workforce is participating in the BBS process? How many observations are performed? Is this number trending up or down? c) Which observers are high performers whose contributions to the BBS process should be recognized? d) whether observers make follow-ups post-observations?

### 5.7 BBS is Safe business

Safe business means better economy, hence the governments must register BBS into workplaces as essential element to ensure safe environments to work for its valuable human resource. Since at-risk behaviours are being practised and have

already ballooned to nearly 30% in the Indian industry, the managements and all stake holders such as insurers and banks must make BBS compliance a condition for all economic activities in the country. For the safety of people and property, every month, the respective site/plant must calculate and display at the gate, the % of safe/at-risk behaviour, as well as % of improvement after correction of at-risk behaviours by the trained observers.

This study of public and private sector companies has elaborated the steps and processes involved in BBS implementation across industries which would guide organizations that are on the way to achieving zero accidents by increasing safe behaviours being practiced by employees as well as building the world best interdependent safety culture. These case studies have shown that by continuing BBS approach over the years, the corporates have achieved the involvement of employees at all levels in terms of controlling accidents as well as creating safer workplaces. The at-risk behaviours which are the root-cause of accidents have significantly gone down.

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