Paper on

MODERN SYSTEMS FOR HEALTH AND SAFETY MANAGEMENT—A WAY TO ZERO INCIDENT

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Change is the constant thing that is happening in all sphere of life. Change in dynamics of human behavior related to thinking, believing and action has brought a paradigm shift in health and safety management. Life expectancy of human being is increasing day by day so as the value of life. We are becoming more and more conscious about our rights to live healthy and safe. Everybody wants to be safe. By virtue of our creation, human being always takes action in safe way while encountering any dangerous object. For example if one encounters a snake, he jumps off to a safer place and takes a safe approach. Such behavior of human being helps in taking safer steps in management of health and safety. Today I think there is no argument regarding importance of managing safety and health in better way.

Now when I talk about modern systems for health and safety management, I mean the modern thought in managing health and safety. There are two worlds in safety and health management. One is western countries and others are non-western countries. In western countries, health and safety management systems and progresses are well defined and well implemented. They have enough resources and affordability to manage health and safety in a better way. In non-western countries, the health and safety management is in confused states. This means that we in non-western countries adopted a mix of culture and that leads to confusion with respect of roles and responsibilities and rules. We say that safety is everybody's responsibility. We normally misunderstand that when roles and responsibilities for health and safety management are to be fixed. We goof up with roles by assigning same responsibility to multiple role players. Really we are in a confused state.

In western countries safety is a way of life. Safety remains in the forefront in whatever they do. They follow safe practices everywhere be it in factory, in office, at home or at street.

Now I prescribe here my recipe in sevensteps to have zero incident organization. I provide step by step the requirements and the strategic movement to have a robust systems and processes and to build an organization of excellence in health and safety performance. Thus it builds a healthy, motivated and happy workforce.

1. Policy, Principle and objectives

Each organization who wants to be recognized as safety leader, needs to have a vision supported by policy to head for, be guided by its principle and to achieve its objectives on health and safety aspect.

Here I do emphasis to have separate policy, principle and objectives for health and safety. I mean these should be mixed with other aspects like environment or quality etc. This is required to have focused approach to Safety.

Where do you want to go? What do you want to achieve? How do you want to achieve? Answers to these questions will form Vision, Policy, Principle and objectives. This step is the first step and a must step towards achieving zero incident organization.

For example vision could be as "achieving 'World Class' Health and Safety Performance and effective management of health and safety is an essential part of business activities"

Policy could be like:

a. Implement and maintain management systems to ensure effective planning, organizing, control, monitoring and review of health and safety measures.
b. Promote working practices and standards of behavior, which minimize the risk of injury and occupational ill health.

Objectives could be like:

a. Provide and maintain a safe and healthy place of work.
b. Ensure places of work are managed so that risk to members of the public is minimized
c. Promote high standards of occupational health care, provide necessary health surveillance and make appropriate provisions for all staff
d. Set standards that, as a minimum, provide compliance with relevant statutory requirements relating to health and safety.
e. Provide information, instruction, training and supervision to enable employees to work safely and without risk to health.
f. Identify hazards and assess risks to ensure that safe methods of work are established.
g. Install plant and equipment that can be operated and maintained safely.

These are few examples of objectives to achieve for effective safety management.

2. Formulation of safety rules

Questions to be asked are

Do you have written rules to follow? Do you follow general knowledge to manage safety?

It is imperative to have written rules to manage health and safety. Here I am not talking about Standard Operating Procedures (SOPs). I am talking about rules that are mandatory to follow.

To bring clarity on the matter I would like to explain little bit. Here I do emphasis the need to have written rule for making system safe for work or operate. When you go for isolation of any equipment for maintenance work or inspection, majority of us will follow a common sense approach. Like to isolate electrical system, we do isolate the circuit by opening breaker, isolator etc etc. Mostly I have seen this is done based on common sense. What do you do when the voltage level varies from 220V to 765KV. Do you follow same common sense approach? There can be a mistake. What safe distance do you need to follow from live conductor? So to deal with it, you need safety rules.

I give example of safety rule here. Say you would like to work on high Voltage system. The safety rules will look like the followings.

To achieve Safety from the System, it shall be achieved by the application of the following precautions and, before work commences, a Permit for Work shall be issued:

a. The H.V. equipment shall be Isolated. When Isolating Devices are used they shall be immobilized and locked. Caution Notices shall be affixed at all points of isolation;
b. Primary Earths shall be applied within the Isolated zone and immobilized and Locked;
c. the contents H.V. Equipment shall be adjusted to a level which avoids Danger and where drains could give rise to Danger they shall be Locked in the appropriate position;

d. Where internal access is required H.V. Apparatus shall be Purged if the residue of contents could cause Danger;
e. Where Danger could arise from the release of stored energy, action shall be taken to contain or dissipate this energy safely.

Advantage of this system is that there is no scope of negotiation in deciding the precautions to be taken. The rules should evolve from lot research, lot of experiences etc. If rules cannot be applied, there should be a rule to deal with it. This arbitration shall be done at the highest level of the organization.

3. Roles and responsibilities of persons:

There is a need to define the role and responsibilities of persons to manage health and safety. There are distinct responsibilities in managing general safety and as well as system safety.

Question here is if you have defined the roles and responsibilities of people in a written form. Have you authorized them in writing to play role in safety management?

To achieve safety from the system, that is, from dangers which may arise from the design functions of the plant and apparatus, each of stages will involve one or more of the following functions:

a. 'Safety Co-ordination' - which includes, before work commences, instructing actions to implement precautions and, after completion of work, instructing actions to remove safety precautions;
b. 'Making Safe/Restoration of Equipments' - which includes: before work commences, taking actions to make plant and apparatus safe for work and issuing a Permit To Work; after completion of work and the cancellation of the Permit To Work, taking actions to restore the Equipment to service;
c. 'Work' - which includes: receipt of a Permit To Work, execution of the required work to its completion or termination and, after the work area has been cleared, clearance of the Permit To Work.

We need to distinguish the roles as stated above. In simple term, It is to be clearly fix the responsibility regarding

a. who is going to be responsible for deciding the precautions to be taken?
b. who is going to make the equipment safe for work?
c. who is going to establish safe access/egress, safe method, ensure safe tools?
d. who is going to be taking care of safety during work?

Generally such roles are defined as Authorized person, Competent person, Selected person, Nominated Supervisor etc.

Each one will be trained thoroughly, will be examined written and orally and finally certificate shall be issued to individually duly authorized to play defined role.

This process puts lot of importance in each role to take up their responsibilities. There will be seriousness in their decision making to manage safety. Thus safety management will be effective.

4. Written assessments, Procedures and instructions:

When organization establishes its own written safety rules, there is a need to write down detailed procedures and instructions. These procedures and instructions should be time tested for applicability and validity for local use.

Procedure should be demonstrable for ease of use and follow. If required these are to be written in multiple languages. Ambiguity shall be removed from any procedure.

Procedures shall be backed up by checklists. System shall be auditable. Procedure shall be reviewed periodically and as and when there is major change in organizational set up or addition or delection.

Statement is to be written with step by step approach to control hazards and it is to be submitted to people who issues Permit To Work.

The system should be developed based on risk assessment. Risk assessment is the back bone to develop a safe system. For all activities, there shall be risk assessment done for the first time. Recommendations of risk assessment report shall be formally declared for action. Going forward the risk assessment shall be done for any non-routine hazardous work to be undertaken.

5. Training and retraining:

Question to be asked like

a. Do you have any budgeted mandays for each people?
b. Have you prepared competency matrix for health and safety management role?
c. Have you identified correct training provider?
d. Do you have retraining program?
e. Do you have effectiveness monitoring after imparting training?
f. Have you made training on health and safety compulsory?

Success depends on effective training and retraining to people. Every training shall be done based on the competency requirement. Competency requirement is to be mapped and matrix is to be made. Health and safety training shall be imparted to each and everybody. Type of training will be imparted based on the role that one has to play.

Training is to be categorized such as basic awareness, skill development, master program and trainer program. In house trainer development is must for sustainability of health and safety management.

All people should be trained for hazard identification and reporting.

6. System development

The following systems are to be developed for effective health and safety management

a. Lock out tag out (LOTO)
b. Risk assessment
c. Incident investigation and Root cause analysis

d. Suggestion scheme
e. Computerized permit to work system with cascading facility
f. Internal Audit
g. Capturing potential incidents and near misses

The above systems are bare minimum requirement for H&S management. There can be n number of systems for improvement of safety performance.

7. Top driven system with appropriate performance management system

Questions are to be asked like

a. Are your Directors training in Health and safety?
b. Are there KRA /KPI on Health and safety performance?
c. Is the weightage good enough to make an impact on over all score?
d. Do your Directors talk often about safety?
e. Do you start all your meetings and reviews with safety in true sense?

Health and safety system should be driven from top of the organization. There should be enough training and awareness on safety to top management. They should be responsible for safety performance of their organization. In our country often the responsibility of safety is delegated to the poor workman who has will be exposed to hazards.

Performance management should have metrics on safety performance with high weightage that can create impact on overall performance of a person. Once top management is committed to effective health and safety management, the responsibility drills down through hierarchy.

8. Some other points:

Contrary to dialogue in vogue , safety is an engineering subject and it is not a common sense. Very often people say that safety is just common sense. I caution her and reiterate that safety is an engineering subject. You cannot put water spray on oil fire or electrical fire.

Safety implementation is not a choice; it is to be made mandatory. You have to be ruthless to implement good safety practices. Policy is no compromise, non-tolerance or zero tolerance. Recognize and reward the best performers. Celebrate each achievement of safety metrics.

Remember safety is like ear and head is production. If you pull ear, head will also move. Thus safety performance itself can bring good production and profitability.

Last but not least, we should reach to the heart of people for the best performance on health and safety.