



IS YOUR SAFETY MANAGEMENT SYSTEM WORKING?

EazySAFE

online • training • compliance • expertise

Introduction

Do you know whether your safety management system is working or not? It's probably not a question that is asked within organisations too much, these things just seem to tick over without any notable issues arising and therefore what else needs to be done, but in safety the mantra of no news is good news is not necessarily one to be followed.

Of course, it is hugely to our advantage that that our safety management systems do work as intended. Not only is it a legal imperative, it's a moral duty and contributes to the bottom line when safety and indeed other business risk is well managed. It protects people from illness and injury so that they can live productive lives for themselves, their families and for the greater good of society. That is not a claim often made about effective safety management, but it is a true and important statement.

Let me ask two questions about your own safety management system?

- Do you know what you think you know?
- Do you know what you need to know?



That's the thing about safety management. That strange paradox that if incidents and accidents are happening, we think of this as bad news, but if there are no reports of anything happening, we are worried about what is going on that we don't know about. How can an organisation be reasonably sure that all is OK or is the organisation just a

hairs breadth away from something bad happening which will be an unpleasant surprise to everyone? The second question applies to top management. There is often so much going on, especially in larger organisations that safety becomes just one of many other business functions that need to be managed on a day to day basis. Therefore, drilling down into the actual safety management performance detail may not be realistic at that management level and so the data that top management need to make informed decisions needs to be accurate, relevant and timely, but this is not always the case.

Safety management systems are designed to effectively manage safety risk, to provide a framework to both meet and exceed legal obligations, to reduce or even eliminate costs from safety failures and to improve safety performance to everyone's benefit. Let's examine some issues which are key to establishing an effective management system to achieve these goals so that we can all know what's really going on.

Management Commitment

I want to share a couple of examples of well-known industrial accidents. Both of these disasters illustrate the terrible consequences of safety management systems that did not work but with a particular emphasis on a lack of management commitment. These are a very useful starting point in this discussion, principally because they really happened and the learnings from them show that we are not discussing theoretical's here. Of course, the examples I have chosen help to illustrate a particular perspective and no doubt there are other starting points for the question we are asking.

The first example is the Buncefield oil storage terminal explosion and fire in 2005 in the UK. A 6,000 cubic metre petrol storage tank was being filled from a remote location via a pipeline, but due to a series of well documented alarm failures inside the tank the fuel overflowed, spilling hundreds of thousands of litres of petrol down the side of the tank and into the tank bund. This created a massive vapour cloud which inevitably found an ignition source. The explosion was so massive it was reported to be the biggest peacetime explosion in Europe since World War Two. The investigation findings reported that:

“...the HOSL [Hertfordshire Oil Storage Ltd] Board met only twice a year and were kept informed of health, safety and environmental issues by the Terminal Manager. Such a hands-off approach was clearly insufficient oversight to achieve the stringent managerial framework required for the control of a major hazard site...

...the Board of HOSL did not grasp its COMAH [Control of Major Accident Hazards] responsibilities; and the HOSL joint venture did not effectively manage major hazards. It appeared more of a convenience for the financial management of the venture.”



In the above example, top management were not committed to safety at a major oil storage facility and as a result didn't know what was really going on at their own worksite. In effect, they made the dangerous assumption that everything was OK but the reality was that they didn't know what they really needed to know. COMAH legislation has evolved through the years from learnings taken from other historical major accidents at these types of facilities, although the Italian town of Seveso will forever be connected with this legislation (due to a horrific accident back in 1976). It is a great shame that top management here were ignorant of the price that had already been paid by others to try and ensure that similar events would not repeat themselves.

There is another text book example which shows the terrible real-world consequences of a lack of management commitment; let's consider the 1987 ferry capsizing disaster of the cross-channel ferry

Herald of Free Enterprise. The capsizing was caused by the vessel sailing from the Belgium port of Zeebrugge with her bow doors open after loading vehicles for the voyage. She took on water and rolled over onto her port side, killing close to 200 passengers and crew

“...a full investigation into the circumstances of the disaster leads inexorably to the conclusion that the underlying or cardinal faults lay higher up in the Company. The Board of Directors did not appreciate their responsibility for the safe management of their ships. The failure on the part of the shore management to give proper and clear directions was a contributory cause of the disaster.”

The investigation report has some astonishing quotes from the top management of the ferry operator before the accident, where they dismissed serious concerns raised by their own ferry Masters about previous sailing on other ferries with the bow doors open! Management commitment indeed.

Why are we talking about industrial accidents where a lack of management commitment was a significant cause? After all, the main theme of this discussion is about how do you know whether a safety management system is working or not.

The answer is that when building something solid you need foundations on which to build it upon. For any organisation that is top management commitment to effective safety and risk management. Without this, everything else that is done to manage safety risk will certainly be compromised to some degree. The less top management commitment there is, the more likely it will be that:

- Safety risk management compromises will raise the risk profile of the organisation.
- Appropriate goals, targets and objectives that should guide the organisation won't be well considered and may not be focused on the organisation's risk profile.
- Communication between different management levels setting expectations and deliverables will be compromised.

It then becomes obvious that the accumulative results of a possible lack of commitment at a top

management level will negatively influence the effectiveness of any management system, not just safety.

Safety Context

After top management commitment, the second expectation for effective safety management is that of organisational context. Context is an increasingly important aspect within safety management and indeed, within other management systems and has been included as a separate section in the latest environmental, quality and safety management system ISO standards. Context operates at a micro and macro level and also from an internal and external perspective; here are some examples but they are not limited to:

- National legislation, international standards, the regulatory environment, the prevailing national perception of societal and occupational safety, risk tolerance of regulators and legislators and industry trends.
- Safety culture in the organisation, working terms and conditions, continual improvement in technology, work equipment and safety systems and the risk tolerance of the organisation and its management.

When context has been considered in the development of a safety management system by committed top management, there should be some degree of assurance that it will more accurately capture the entire risk management environment the organisation operates in. When the entire scope of the risk profile is understood, top management can put into place the resources to manage that risk. Once that is in place line management can start to consider how best to collect the data needed to measure and assess safety performance in terms of its policy statements, objectives and targets.

The second point to be made is that without a context, a safety management system may not address all of the issues that can impact it and therefore by omission, can allow unidentified risk exposure to the organisation. If this is the case, the system is not working for you.

Don't Assume Anything

There are also a few assumptions that must not be made at any level of management about whether a safety management system is working as expected:

- An organisation that has never had a serious accident should not be taken as an indication that all is well.
- Organisations that have a number of serious accidents but are still profitable is a possible indication that top management are not committed. When accidents are cheaper to pay for than legal criminal liability, fines and regulator penalties, that is a bad sign.
- The incorrect perception of top management that effective safety management can be an unnecessary cost, can adversely impact production and ultimately shareholder value.
- Management, especially at corporate offices can become separated from the real issues being managed at the shop-floor level. An example; corporate BP's drive to keep cutting costs at their U.S. Texas City refinery prior to the deadly 2005 explosion even though this was impacting critical maintenance activities and the hiring of safety critical operators at the plant. Let's not forget the Buncefield accident scenario too.



Recording the Right Data

There is the old truism of rubbish in means rubbish out and this equally applies to safety statistics and data too. To have any chance of telling whether our system is working or not, we need data on which to base our conclusions; not just any data but the right data. Regulatory metrics are

straightforward and are often clearly specified so there is no imagination required to identify those requirements assuming that the organisations context is well understood...

When collecting data from the outputs of the safety management system consider:

- Regulatory data such as workplace fatalities, occupational illness and injury reports and dangerous occurrences etc. Regulatory information and reporting is a legal requirement and must be captured in the SMS depending on both the general and specific rules and regulations that apply to an organisations business activities. When the operating context is understood, the regulatory framework will be clear and therefore reporting requirements will be too.
- Organisational policy, objectives and target information – Examine the requirements and decide what information is required to verify these and how it will be gathered. Examples of targets could be ‘a 10% reduction for the year of restricted work case injuries’ or ‘meet or exceed the TRIF rate as stated by the industry representative body’. The data that is needed to verify these particular targets is clear and also fits in with the context of the organisation.
- Data from leading indicators – leading indicators are proactive, preventive and predictive indicators. This data set is traditionally considered to be an important indicator of trends that, if not corrected could contribute towards possible future accidents or incidents. Whilst Heinrich’s Law, also commonly known as the safety pyramid has been largely discredited in recent years for its very prescriptive ratios, the relationship between leading and lagging indicators is generally accepted. Leading indicator types include:
 - Operational indicators such as management of change, permit to work, risk assessments and corrective and preventative remedial actions.
 - Organisational indicators such as vocational and safety training activities, providing external cold-eye audits, corporate social responsibility activities and interaction with industry organisations.
 - Behavioral indicators such as safety card reporting, improvement suggestions, ideas and opportunities and management visits and walk-about’s.
- Data from lagging indicators – lagging indicators are those events which have resulted in accidents such as a fatality, lost time injury or first aid case. The more severe categories are considered as indicators of system failures which should be identified in accident investigations. The safety management system should clearly identify which lagging indicators are required to be reported to the competent authorities and for internal reporting requirements.
- Safety metrics – organisations create a lot of information much of which can be used to measure how the SMS is meeting its stated requirements, but it is important to track the statistics that are needed and not to accumulate information in a random or disorganised fashion. Examples of safety metrics that can be counted in numerical terms include:
 - Regulatory events – accidents, dangerous occurrences and other specific legislative reporting requirements.¹
 - Safety events - meetings, inspections, management of change activities, internal audits, external audits, management visits, procedure reviews, risk assessment reviews etc.
 - Training events – safety inductions, safety and emergency drills, training events, short term employee training etc.
 - Remedial actions - remedial action totals, open actions, closed actions, overdue actions etc.
 - Exposure hours - number of employees, working hours etc.

Verifying the System - Audit and Review

Audit and review are considered as an end process in most safety management models although it is deceptive to imply that, as in reality audit and review is an ongoing and repeating process. A well designed and operated audit and review process is perhaps the single most important process for



answering the questions posed at the start of the discussion; providing committed top management with information about what they need to know.

Regardless of the audit type, the audit process needs to incorporate a number of key principles which will give core strength to this important task. These include;

- Integrity – The participants need to have a professional approach to auditing, which includes using due diligence and good judgement during the audit process.
- Fair Presentation – Accurate and truthful representations must be made.
- Confidentiality – The privacy and security of information of the organisation and of individuals must be considered throughout the audit process.
- Independence - The independence of auditors is critical in ensuring that findings are impartial and objective. Conflicts of interest can potentially damage the credibility of audit observations and findings and of the auditors themselves.
- Evidence based approach – The audit process must make findings and observations based upon the available evidence. If there is no evidence, there cannot be any definitive findings

Audit types need to be considered as they will also play a role in what information is gathered:

- First party - Internal Safety Management Audits - First party audits are undertaken within an organisation and are also commonly known as internal audits. There are a multitude of first party audits types such as cross audits, work observations or self-audits that an organisation can develop and implement.
- Second party - External Safety Management Audits - Second party audits are external audits undertaken by one organisation upon another. Business relationships often create scenarios where one organisation will need to verify the activities of a contractor, partner or service provider.
- Third party - External Safety Management Compliance and Conformance Audits - 3rd Party audits are concerned with compliance and / or conformance against regulatory requirements or standards.

The success or otherwise of these processes depends upon them being set up to accurately examine and measure the critical points in the system. The process must identify where these critical points are, they must be in tune with what the organisation does and the context it operates in. This is not as easy as it might appear because there are potentially hundreds of sample points that can be looked at to try and gauge the performance of the safety management system.

Lastly, the third-party audit approach can bring in a cold-eye review that can bring in a different perspective. It depends upon what the audit model

is but it offers a different set of criteria that may just have the ability to identify weaknesses that internal audits may have missed. Third party audit models are also frequently updated to reflect learning from standards and legislation changes which may not be the case within an organisation which may evolve more slowly.

Summary

Safety management systems can be simple or complex, can be local or international, developed to a standard or to a basic model but whatever system is in use, there are certain fundamentals that must be in place for any organisation to know whether it works for you or not. First and foremost, it must be supported by top management commitment. If this is not in place, everything else becomes problematic and the risk profile of an organisation will increase.

Secondly, the context that an organisation operates in will define what risks an organisation is exposed to. If this is not fully understood, perhaps by top

management who are not committed enough we can start to see where the stress and fractures in our risk management approach can come from.

Thirdly, once we have committed top management who fully appreciate and understand the safety risk context for the organisation, an effective and tailored audit and review process can be implemented. That will assess the performance of the safety management system from the selected data points that should critically assess policy objectives and targets set at the top management level.

Lastly, don't assume anything. Safety management system don't just coast along and if your system is not changing and evolving, top management may be in for a big surprise.

Notes

1 – In Irish legislation, the Safety, Health and Welfare at Work (Reporting of Accidents and Dangerous Occurrences) Regulations 2016 details reporting requirements for employers.



EazySAFE

The Well

Unit 2018, Citywest Business Campus,
Dublin, D24 FR88, IRELAND

T: +353 1 653 1616

E: info@eazysafe.com

W: eazysafe.com

EazySAFE

online • training • compliance • expertise