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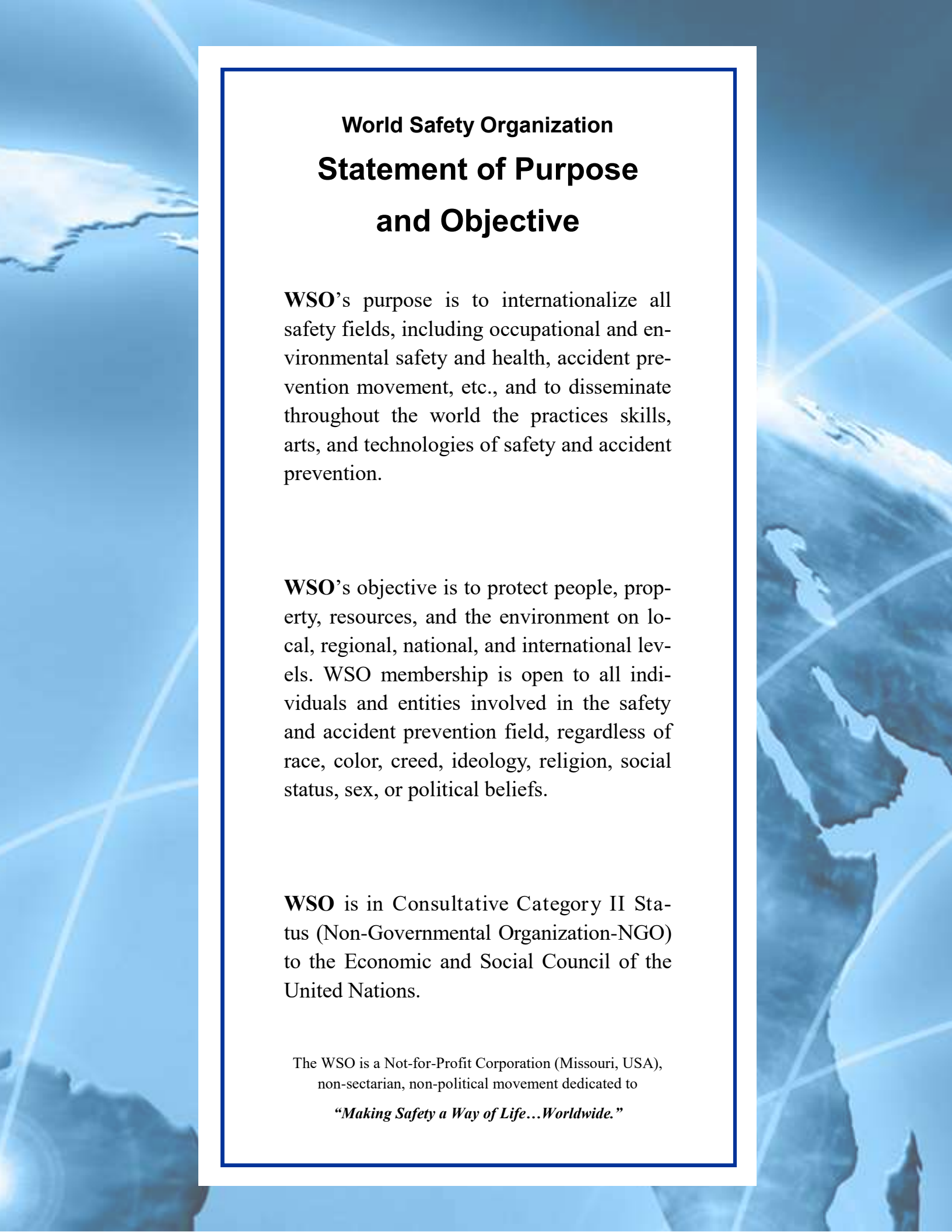
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World Safety Journal



In This Edition

- Workplace Safety and Health Issues in Secondary Schools
- Saudi Railway Expansion Programs
- Developing a Positive Safety Culture
- Safety Tools of the Trade: A Learning Experience
- Travelers Lured Abroad by Great Holiday Deals Urged to Remember Travel Health
- 30th WSO Symposium Call for Speakers and Registration



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Articles for inclusion in this journal will be accepted at any time; however, there can be no guarantee that the article will appear in the following journal issue.

All articles shall be written in concise English and typed with a minimum font size of 12 point. Articles should have an abstract of not more than 200 words. Articles shall be submitted as Times New Roman print and presented in the form the writer wants published. On a separate page, the author should supply the author's name, contact details, professional qualifications, current employment position, a brief bio, and a photo of the author. This should be submitted with the article.

Writers should include all references and acknowledgments. Authors are responsible for ensuring that their works do not infringe on any copyright. Failure to do so can result in the writer being accountable for breach of copyright. The accuracy of the references is the author's responsibility.

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Articles should be referenced according to the Publication Manual of the American Psychological Association 2010.

Books are referenced as follows:

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Workplace Safety and Health Issues in Secondary Schools

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Abstract

Schools should be a safe learning environment for students, but they should also be a safe workplace for school staff. Traditionally much emphasis in schools has been given to concerns regarding student safety and well-being with minimal attention given to school staff safety. This article explores published literature associated with hazards and injuries incurred by employees working in the educational sector. It focuses on issues such as general hazards and injuries in high risk areas, workload, bullying, and student violence in secondary schools. Some strategies are recommended for gaining commitment to good occupational safety and health as well as important risk control measures for addressing occupational safety and health issues in schools. Further research is recommended for identifying further safety issues as well as strategies for promoting a commitment to good occupational health and safety in the school sector.

Keywords

School workplace safety. Education sector. Occupational safety and health. Student violence. Bullying. Workload. High risk areas in schools.

Introduction

The education sector has a duty of care not only to their employees but also to the students in their care (Western Australian (WA) School Education Act, 1999). Occupational or workplace safety and health legislative compliance, coupled with budgetary constraints place several demands upon school administrators in terms of managing school facilities, class sizes, teacher timetables and for supporting staffing allocations.

Schools like any other employer, have a duty of care to provide a workplace where the employees are not exposed to hazards (WA Occupational Safety and Health (OSH) Act, 1984).

A review of recent literature suggests that there are many safety issues that exist and there have been few studies devoted to improving the health and safety culture for staff in schools. Good occupational health and safety in schools requires the cooperation and support of the school governing body, senior management, all levels of school staff, students and unions. Implementation of safety programs for pre-service teachers as well as ongoing professional development for all levels of school staff are strategies that promote a commitment to good occupational health and safety in schools.

Policies and procedures address the requirements for compliance with relevant safety and educational legislative requirements, but how does this translate into practice in schools? What is the current situation with regard to the safety culture in schools and what strategies can be considered for gaining commitment to good occupational health and safety?

Methodology

Preliminary searches were conducted using Proquest educational journals on articles that were published after 2005. The first search used the keywords: 'Safety culture AND school or college' resulting in 2 articles regarding camp safety and gun safety which were unrelated to workplace culture. Further searches on

'school workplace safety and school or college' and returned 7,879 results. By modifying the search to articles that contained these terms in the abstract only yielded 39 results. The second search was conducted using the keywords: 'occupational health AND safety in schools AND school or college' contained in the abstract only and yielded 29 results. The third search was conducted using the keywords: 'occupational safety OR occupational health safety AND school or college AND workplace' contained in the abstract returned 128 results. These results were merged and resulted in 179 results. Articles chosen for review were based upon their relevance to the general and occupational safety aspect in schools rather than only student safety. Twenty nine articles and two laws are referenced in this article.

Discussion

Searching the database of educational journals showed limited articles regarding the safety culture of schools and this was confirmed by the articles themselves. There is limited information on research into staff wellbeing in schools as the focus has largely been on providing a safe environment for students (Saaranen, Tossavainen, Turunen and Naumanen 2006). More attention has been given to student well-being rather than on school staff safety (Gregory, Cornell and Fan 2012). Despite this, there are several articles that have highlighted the number and type of hazards in the school sector. Rusu-Zagar, Rusu-Zagar and Mocanu, (2014, pp103-104) state that "Risk factors present in the working environment of educational institutions are: physical risk factors, chemical risk factors, mechanical risk factors and psychosocial ones".

Schools like any other workplace continue to experience cases of injuries to staff. Injuries in schools are widespread and can be wide-ranging such as foot injuries through tripping; back injuries through a collapsing trampoline; assaults by students and crippling by an electric shock in science, all resulting in significant worker compensation claims (Barker and Milne 2008).

Hazards and injuries

School staff can be exposed to serious hazards in their workplaces not normally considered, such as sick building syndrome (Stewart 2009). Schools have significant hazards that have incurred high numbers of workplace infringement notices being issued in Canada in 2012 (Day of mourning, 2013). Preventable injuries such as

sprains and strains as a result of circumstances relating to buildings, walkways and floors have been identified as the leading cause of injury for workers in education (Day of mourning, 2013). In the UK in 2007-08 it was reported that in schools more than three thousand injuries occurred as a result from falls from height such as stairs or chairs and sixty percent of serious accidents were attributed to slips and trips (Frankel 2009).

Non-reported hazards or delays in addressing hazards has been identified as a problem in some schools, although it has been stated that high risk areas such as technology or science rooms were better at reporting hazards (Marie, 2006).

High risk areas

Schools have a responsibility to maintain a safe workplace in hazardous environments within their schools. Specialist discipline areas in the school can have unique hazards; for example visual art staff handle hazardous chemicals such as dyes, solvents and corrosive acids and performing art staff are exposed to hazards such as musculoskeletal problems or issues with stage rigging (Stewart 2009). There are high risks involved in the school technology area with machinery and materials such as metal wood and plastics and teachers need to be familiar with occupational health and safety considerations (Hodis and Vybíral 2012).

Serious accidents have occurred in high risk areas in schools such as in the case where an explosion of nitric acid and shards of glass in a motor technology department left a lecturer permanently scarred and unable to return to work (Hook, 2008). The hazards in hands-on science areas compared with other areas of the curriculum are not well understood by school administrators (Roy, 2015). Hazardous chemicals, such as corrosives, exist in high risk areas such as the science departments and have the potential to cause serious eye damage and/or severe skin burns (Roy, 2014). It is important for school administrators to consider the provision of safe laboratories to comply with legislative requirements (Roy, 2013b). It is also important to consider the occupancy load, i.e. the number of students allowed in a science laboratory, so that safety is not compromised (Roy, 2013b).

Workload and bullying

Schools are busy places. A study conducted in schools in Finland found that “The most problematic factors of occupational well-being were the urgency and pace of work at school and the problems in working space, postures and equipment” (Saaranen et al. 2006, p134).

Teacher release time and workload have been identified as an important consideration in providing a safe workplace (Lemaire, 2009). Blasé and Blase (2006) provide some very confronting evidence of bullying in schools by school principals to their staff. Although this was a limited study of fifty teachers, the mistreatment and the effects on the teachers raises serious concerns about the safety culture in schools.

Student violence

Violence in schools is an area of increasing concern. Violent assaults on school teaching staff by students is occurring on a regular basis in some areas (Safe & secure, 2008). In the UK there are

concerns about large increases in assaults on teachers (Lowe, 2008). In Australia, there have been calls for distress buttons in classrooms to address the rise in attacks on teachers by students (Maslen, 2010). This increase in violence is not only restricted to violence against staff but also against other students (Maslen, 2010). Violent behaviour from students can pose significant risks to staff as well as students in schools and these risks have not always been effectively controlled (Lemaire 2013,).

Roy (2013a) describes a situation regarding a student’s angry and violent behaviour in a science class where the teacher was not supported by the administration and therefore was not provided with a safe workplace. This then combines student violence with psychosocial issues.

Gaining commitment to good occupational safety and health

Central to gaining commitment to good occupational safety and health is a joint approach by government policy makers, employers and employees (ILO 2013). There needs to be a collaborative approach and commitment from employers, employees and unions to improve the commitment to occupational health and safety in the workplace.

RoSPA (2012) encourages a holistic approach to both modelling and teaching risk management. In the face of increasing safety challenges in a very busy school environment, what strategies can be put in place to promote and gain commitment to good occupational health and safety?

Gaining commitment needs to include everyone who comes onto the school premises and incorporate strategies that include:

- meeting occupational safety and health requirements in all staff employment descriptions, including top management positions such as principals, directors and board members
- meeting occupational safety and health training in annual performance appraisal for all staff
- the provision of time to attend occupational safety and health education and time to work safely
- rewarding staff for having and implementing occupational safety and health improvement activities
- occupational safety and health training in pre-service teachers courses
- occupational safety and health taught in student education from pre-school onwards
- the supply of goods and services as part of the school occupational safety and health program

How can policies and procedures be turned into the actual practice in schools? Below are some risk control strategies that can be implemented by different levels within the structure of schools to address the issues raised in this article:

Strategies to address hazards and injuries

- Establishing health and safety committees to provide a structure for reporting and handling health and safety concerns in schools (Stewart 2009).
- Encouraging workers and providing the information on how to report even seemingly trivial workplace injuries is important to improve health and safety (Marie, 2006).

- Taking health and safety matters seriously before accidents happen to ensure that safety systems are in place such as appointment of health and safety officers and staff training programmes (Hook, 2008).
- Enforcement of workplace health and safety inspections to achieve safer and healthier workplaces resulting in less injuries, illnesses and fatalities (Day of mourning, 2013).
- Supply sufficient funding, resources, support and training to enable schools to comply with legislation and maintain safe workplaces (Lemaire, 2013).

Strategies to address high risk areas

- Informing staff in subject specific areas about hazards and risks in their particular area (Stewart 2009).
- Sharing safety information with heads of departments and school administrators helps to keep them up to date with specific safety issues particularly in high risk areas (Roy 2015).
- Providing Personal Protective Equipment (PPE) such as safety glasses, gloves, laboratory coats or aprons when required and training in their use to enable teachers to do their job safely and in compliance with health and safety regulations. (Roy, 2009).
- Providing appropriate training such as knowing how to read labels and Safety Data Sheets (SDSs) for handling hazardous chemicals (Roy 2012).
- Providing guidelines for handling hazardous chemicals such as corrosives in high risk areas (Roy, 2014).
- Implementing and increasing safety training to address issues with more hands-on inquiry based science lessons (Roy 2010).

Strategies to address workload and bullying

- Establishing school policies and practice to enable manageable workloads and provision of additional release time for primary teachers, beginning teachers and more release time for professional learning for all teachers (Lemaire, 2009).
- Designing teacher education programmes for pre-service teachers to include training in assertive behaviour to counter bullying in the school workplace (Blasé and Blasé, 2006).

Strategies to address student violence

- Implementing risk management strategies, additional resources and support to address violent behaviour by students to minimise the level of risk in order to provide a safe working environment for staff as well as a good learning environment for students (Lemaire 2013).
- Proactively develop well-rehearsed emergency plans to deal with increasing levels of student violence (Safe & secure, 2008).
- Devising strategies to respond urgently when staff are in danger (Maslen, 2010).

Strategies to promote staff wellness

- Developing proactive health strategies such as supporting stress control, exercise, relaxation and mentoring programmes (Saaranen et al.2006).
- Providing support from school leaders for their teachers to not only provide for the well-being of the teachers, but for

the flow on effect to the whole school community (Blasé and Blasé, 2006)

- Implementing school wellness programmes as cost effective ways to improve the health and wellbeing of school staff (Eaton, Marx and Bowie 2007).
- Promoting a more global approach to a culture that values health and the minimisation of risks not only in the workplace but in general in society (Rusu-Zagar et al. 2014)
- Promoting best practice in health and safety should be done at all levels of education and schooling (Rusu-Zagar et al. 2014).

Conclusions

Gaining commitment to good occupational health and safety in schools requires a whole school approach with the cooperation and support of the school governing body, senior management, all levels of school staff, students and unions. Whilst budget considerations are important, it is vital that issues regarding the safety and wellbeing of school staff are addressed as they in turn have a major impact, not only on the school staff and students, but also on society. Implementation of safety programs for pre-service teachers as well as ongoing professional development for all levels of school staff are strategies to promoting a commitment to good occupational health and safety in schools. It is recommended that more research be conducted to determine the safety issues in today's schools, as well as to identify strategies for promoting a commitment to a good safety culture in schools.

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Saudi Railways Expansion Programme

Prof. Dr. Elias M. Choueiri, General Director in the Ministry of Public Works and Transport; President of Lebanese Association for Public Safety (LAPS), Lebanon; Director, WSO National Office for Lebanon. **Prof. Dr. Georges M. Choueiri**, Professor at the Lebanese University (UL); Member, Lebanese Association for Public Safety (LAPS), Lebanon; Member, WSO National Office for Lebanon. **Dr. Bernard M. Choueiri**, Chief Justice, Ministry of Justice, Nabatiyeh Province, Lebanon; Member, Lebanese Association for Public Safety (LAPS), Lebanon; Member, WSO National Office for Lebanon.

Abstract

In an effort to reduce the reliance on automotive transport for both passengers and cargo, and integrate the transport system to boost economic development, Saudi Arabia has embarked on a 15-year rail program, one of the world's largest infrastructure projects with an estimated budget of \$97bn to be spent before 2040, which foresees up to 15,000 km of track being laid, combining freight with broad-gauge high-speed passenger and urban metro lines.

Introduction

Saudi Arabia is comparable to Western Europe in size and is among the 25 largest economies in the world ... The Kingdom has embarked on a massive expansion plan, where close to 100 billion USD of projects are currently either underway or in the pipeline, to provide rail links from north to south and east to west covering all strategic commercial, industrial and social points. The development strategy for the railway infrastructure considers 19 individual railway lines, with a total length of up to 15,000 km, and aims for:

- the gradual expansion of the core railway network and widening of railway transport and related services in the Kingdom.
- the integration of railway transport and value added logistics services into multimodal transport chains in order to improve the overall transport network efficiency and reliability.

A Brief History

The first railway in modern Saudi Arabia was the Hejaz railway, from the border of Jordan to Medina. This 1,050 mm narrow gauge railway opened in 1908, but was shut down in 1915.

Modern railways were introduced in Saudi Arabia after World War II, when need became apparent for a port on the Gulf coast to handle materials dispatched to the Arabian American Oil Company (ARAMCO). Such goods had to be conveyed inland from the port to the company's warehouses in Dhahran. The idea of constructing such a railway line was presented to King Abdul Aziz Al Saud who approved the project and instructed the line to be extended to Riyadh. Construction work commenced in September 1947 and on the Oct. 20, 1951, the line was officially inaugurated by King Abdul Aziz. In the beginning, the railway line was run by ARAMCO, but it was subsequently entrusted to the Ministry of Finance, at which time it was known as the Railway Department.

On May 13, 1966, a Royal decree was issued establishing the Saudi Railways Organization (SRO) as a public corporation having full legal status. A board of directors was appointed to lead the organization on commercial principles. It was initially run by ARAMCO, but subsequently transferred to the state and since

1968 has been operated as a public corporation. Several development projects have been completed since then, including an extension of the line to Riyadh, construction of several passenger terminals and the opening of a dry port in Riyadh.

SRO operates a network of railways with a total length of approximately 1,380 kilometers, extending from King Abdul Aziz Port in Dammam and the City of Dammam itself to Riyadh, passing by Abqaiq, Hofuf, Haradh, Al-Tawdhihiyah and Al-Kharj.

Railroads operated by SRO include the Passenger Line, which is a 449-kilometer line that connects Riyadh to Dammam through Al-Ahsa and Abqaiq; the Cargo Line, a 556-kilometer line starting at King Abdul Aziz Port in Dammam and ending in Riyadh, passing by Al-Ahsa, Abqaiq, Al-Kharj, Haradh and Al-Tawdhihiyah; and the Branch Lines with a total length of 373 kilometers that connect some industrial and agricultural production sites and some military sites with export ports and some residential areas.

Phosphate Transportation service was started in May 2011 from Al-Jalamid Mine located in the Northeast of the Kingdom to the processing plant for Ma'aden Company located at Ras Al-Khair on the Arabian Gulf. The Phosphate trains transport 5 million tons of phosphate annually. An American company called Electro-Motive Diesel (EMD) manufactures the locomotives. The Phosphate wagons were manufactured by a Chinese company called CSR.

Bauxite Transportation service was started in 2014. Bauxite, which is used to produce aluminum, will be transported from Al-Baitha Mine in Qassim province to the processing plant at Ras Al-Khair. The Bauxite trains transport more than 3 million tons annually.

Saudi Railways Expansion Programme

Plans exist to spend close to 100 billion US dollars towards increasing KSA's railway network by almost five times. Within the framework of the 30-year Saudi Railway Master Plan (2010-2040), a number of projects have been conceived, in order to provide vital rail links between different parts of the country, including the holy city of Mecca, embracing both passenger and freight

transport.

One element of the first phase of the Master Plan includes the Landbridge network linking Jeddah on the Red Sea with the city of Dammam on the Gulf, with branch lines to key industrial centers. The line aims to facilitate the fast transport of goods and raw materials from one side of the country to the other. It aims also to connect expanding mining, industrial and energy centers with both ports.

Another important part of the rollout is the SAR project, formerly known as the North-South Railway. Once completed, it will add approximately 2750 km of track consisting of two main lines. One will originate in Riyadh and run northwest to the Jordanian border, passing through Qassim, Hail and Al Jouf. The other line will connect the Al Jalamid mine in the north with processing and export facilities in Ras Al Khair on the Arabian Gulf.

Characteristics of the projects are alluded to in the following.

The Saudi Landbridge, a 950 km line from Riyadh to Jeddah and a 115 km line from Dammam and Jubail, connecting the Persian Gulf with the Red Sea. Main features of the projects are:

Connecting the port cities of Jeddah, Dammam and Jubail with the capital Riyadh.

The proposed link will be 950 km long and will be constructed as a dual-track railway to cater for freight and passenger traffic. The scheme also involves the upgrading of the existing rail link between Riyadh and Dammam.

The passenger link will be capable of running at speeds of up to 250 km an hour.

Project Details:

Design Speed: 250 km/h (Passenger Trains) and 140 km/h (Freight Trains)

Operating Speed: up to 220 km/h (Passenger Trains) and up to 120 km/h (Freight Trains)

Time saving:

Jeddah – Riyadh in 6h instead of 10h to 12h today by bus.

Riyadh – Dammam in 2h45 instead of 4h00 today by train.

Jeddah – Dammam in 18 hours instead of 5 to 7 days today by sea without transshipment, or 8 to 9 days with transshipment.

The Saudi Landbridge will transform the existing rail network in the Kingdom into a world-class freight and passenger rail link across the country. It will have the capability of moving large quantities of cargo over long distances at competitive rates and will offer safe, comfortable, and fast overland passenger transport between the country's four major economic centers.

The North South Railway, also known as SAR, from Riyadh via Buraidah, Hail and Al Qurayyat to Al Haditha, with a branch to Ras Al Jalamid on the coast of the Persian Gulf and some minor branches to bauxite and phosphate mines, includ-

ing the connection to the proposed ESCWA - railway network in Jordan via Al Haditha. This will mainly be for mineral transport, but general freight and passenger transport is also planned. Main features of the project are:

Linking the phosphate and bauxite mines in Hazm Al Jalamid and Al Zabirah/Baitha with industrial plants in Ras Al Khair, Jubail and Dammam.

The network will consist of two major components. About 1,390 km of main track will form a core mineral network from Ras Al Khair to Hazm Al Jalamid. Additionally, a passenger and general freight network will comprise about 995 km in three segments: from Riyadh to Al Zabirah/Baitha junction; Phosphate Junction to Al Haditha on the Jordanian border; and the Ras Al Khair to Jubail railway alignment. These two networks have 468 km in common between Al Zabirah/Baitha Junction and Phosphate Junction, where the alignment passes Hail and crosses the Nafud desert.

Connections to the proposed GCC - railway network, with lines between Baitha at the UAE (United Arab Emirates) Border - Hofuf and Jubail - Ras Al Khair - Kuwait Border, as well to Qatar and Bahrain. One of the major components of the project would be a 1,300 km railway line from the Saudi-Abu Dhabi border to Ras Al-Khaimah and Fujairah in Abu Dhabi. The network would stretch from Kuwait in the north to Oman in the south.

The Haramain High Speed Rail Project, or Western Railway, linking Mecca and Medina, and connecting with the network at Jeddah. The main features of the project are:

A 444 km link between Mecca and Medina, passing via Jeddah, Rabigh and King Abdullah Economic City between Jeddah and Rabigh.

Trains will stop at up to seven stations along the route, including two in Mecca, two in Jeddah (at the airport and in the city centre), one in Rabigh and one in Medina, about 3 km from the Holy Mosque.

Up to 100 trains a day will run on the line. Journey times for the 72 km Jeddah-Mecca route will be 30 minutes, while the 372 km Jeddah-Medina section will take two hours.

Future Projects

Taif - Khamis Mushayt – Abha Line

This line links Taif with Landbridge on one side and Abha with Khamis Mushayt, on the other side. The length of this line is 706 km. Studies have shown that the number of passengers expected in the year 2025 that the number of passengers will be between 1,251,000 and 2,200,000, and the tons carried to be between 1,035,000 and 1,500,000.

Jeddah and Jizan Line

This length of this line is 660 Km. It will connect the Jizan region with the city of Jeddah. Studies have indicated that in 2025 the number of passengers will be between 1,525,000 and 1,956,000. The anticipated tons to be carried will be between 2,438,000 and 3,191,000.

Yanbu – Jeddah Line

The construction of a railway line between Jeddah and Yanbu is expected to contribute in linking the areas of the Kingdom with each other where this line will be connected with the landbridge linked with the rest of the railway network.

The proposed railway lines are shown in the following figure:



Conclusion

The Saudi Railway Master Plan 2010 – 2040 represents the basis for a long term sustainable development, and forms a step-by-step extension plan of the Saudi Arabia railway network.

By all means, Saudi Arabia's transport infrastructure caters to the needs of an expanding population. However, it does not only service the Saudi population but also its tourism industry, mainly based around religious pilgrimage. It should be noted that the annual Hajj – the Muslim pilgrimage to Mecca – places intense pressure on the Saudi infrastructure framework, as an estimated 1.9 million overseas visitors and 500,000 domestic pilgrims make the trip. The kingdom's transport network has also grown around the needs of trade. The country's top five export destinations include the US, Japan, Korea, China and Singapore, while the majority of the country's imports originate from Asian markets, the US and Europe.

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About the Authors



Professor Dr. Elias M. Choueiri is a High-Ranking Executive Officer in both Public and Private Institutions in Lebanon. He has authored/co-authored over 20 books, booklets, and book chapters, and over 300 refereed publications, technical reports, conference presentations and newspaper articles.

Dr. Choueiri pursued his higher education studies at several universities in the United States of America, culminating with a Ph.D. in Engineering Science, with concentration in Transportation

Engineering, from Clarkson University, Potsdam, New York, USA, in 1987. He holds several graduate and undergraduate degrees in Civil and Environmental Engineering, Electrical and Computer Engineering, Computer Science, and Mathematics.

His research interests are mainly in the areas of safety education, safety management, highway design, traffic safety, driving dynamics, driver behavior, and railway transportation. He has won over 20 awards for his scholarship and has held faculty and managerial positions at several universities in the United States and Lebanon.

He serves (and served) on the editorial boards of a number of scientific journals. He is President of Lebanese Association for Public Safety (LAPS), Lebanon. He sits on the board of directors of the World Safety Organization (WSO), chairs the WSO Highway Transport Committee, chairs the WSO Transportation of Dangerous Goods Committee, and serves as WSO Liaison Officer to the United Nations.

Professor Dr. Georges M. Choueiri began his teaching career at the Lebanese University in 1991. Ever since that time, he has been lecturing Marketing and Management courses at the Faculties of Agronomy and Business Administration.

In addition to his academic duties, Professor Choueiri has assumed a number of managerial positions in Lebanon and abroad. His main duties include, but are not limited to, identifying and deciding on Budget, Cost control, Key Account Management (Customer Relationship Management), Implementation of regional and global marketing initiatives, and operation expansion; and providing critical inputs on Growth strategies, Pricing strategies, Industry and competition, Alliances and business partnerships, Technology trends, Marketing support, etc.

Professor Choueiri has authored and co-authored tens of Journal and Conference articles on a number of issues. He is affiliated with WSO's National Office for Lebanon.

Judge Dr. Bernard M. Choueiri served for nearly six years as the Chief Justice, Court of Appeals, Nabatiyeh Governorate, Nabatiyeh, Lebanon, until 2017. He began his legal career as Judge in Training (1974 to 1978) at the Judicial Training Institute, Ministry of Justice, Beirut, Lebanon. Ever since that time, he had assumed a number of responsibilities in the Lebanese Justice System.

In addition to his judicial appointments, Judge Choueiri had been a law professor lecturing on International Taxation at the Faculty of Business Administration, La Sagesse University, Beirut, Lebanon; Civil Law and International Private Law at the Faculty of Law and Political Science, Lebanese University, Zahle, Bekaa Governorate, Lebanon; and Civil Procedure and Labor Law at the Faculties of Law and Business Administration, St. Joseph University, Zahle, Bekaa Governorate, Lebanon. Further, Judge Choueiri served as Professor at Association Internationale pour la Paix par la Connaissance, Paris, France, from 1979 to 1981.

Judge Choueiri has authored and co-authored tens of Journal and Conference articles on a number of issues. He is affiliated with WSO's National Office for Lebanon.



Developing a Positive Safety Culture

Win Bo, MSc; Managing Director, WIN OSHE Services Co., Ltd , Myanmar; Director, WSO National Office for Myanmar .

In recent years, the concept of Safety Culture has emerged as a popular approach to improving the level of safety and health performance of many organizations around the world.

Developing a positive safety culture is a new approach to managing workplace safety and health.

It has gone beyond managing safety and health through a safety and health management system and demonstrated that, by engaging employees and management far better results are possible.

A number of investigations into the major accidents around the world such as Piper Alpha, Flixborough and Chernobyl have shown that presence of safety and health management system with absence of a positive safety culture could not be eliminate the hazards.

Safety culture is a term that was introduced by the International Nuclear Safety Advisory Group (INSAG) in a report on the post-accident review meeting of the Chernobyl disaster in 1986.

Although various definitions of safety culture have developed by several researchers since that time but one that is most widely used is that developed by Advisory Committee on the Safety of Nuclear Installations (ACSNI) (HSE 1993).

The safety culture of an organization is the product of individual and group values, attitudes, perceptions, competencies, and patterns of behaviour that determine the commitment to, and the style and proficiency of an organization's health and safety management.

There are several key factors that contribute to developing a positive safety culture within various organizations. Key among these are:

- Degree of leadership in safety and health and the commitment of management
- An effective safety and health management system
- Involvement of different levels of employees
- Training
- Open communication
- An effective safety & health committee and Safety & health professional

Degree of Leadership in Safety and Health and Management Commitment

One of the primary factors of a positive safety culture is an effective leadership from senior management to the improvement of safety behaviors and attitudes at all levels of employees in the organization.

The creation of good safety attitude begins with top management. Management commitment produces higher level of motivation and concern for safety and health throughout the organization by the allocation of budget, time and manpower.

If management buys into the organizational safety plan and promote the attainment of safety goals, their enthusiasm will begin to cascade down to their employees.

It is also important that the senior management creates an example in their own attitude and behaviors towards safety and health.

Safety and Health Management System

An effective safety and health management is another key factor that should be put into place in establishing a positive safety culture.

Safety and health management systems are based on standards, which specify a process of achieving continuously, improved safety and health performance and complying with legislations.

Implementing safety and health management system is designed to compel organizations to act proactively to assess all aspects of the business that involve safety and health risks, evaluate those risks and take measures to control them.

Involvement of Different Levels of Employees

Employee's active involvement is one of the most important factors to built ownership of safety at all levels of staff in an organization.

It is also vital that these employees commit to and support the safety and health goal of the organization.

Once employees incorporate the organizational attitude into their own outlook on safety and health and reflect that attitude in their actions, the safety culture will begin to take shape.

Training

Another important contribution factor to creating a positive safety culture is the development and delivery of training programs such as risk assessment, behavioural-based safety and emergency preparedness.

At the root of a positive safety culture is positive attitude. Changing attitude may require behavioural-based training programs to all staff. Positive attitude of all levels of staff contributes to developing a positive safety culture.

Open Communication

Establishing free and open communication is another key factor of a positive safety culture.

If the senior management listens actively to what they are being told by their employees and take care what they hear seriously, employees will recognize that the management is indeed concern for their physical well-being.

It helps to establish an open communication channel in the organization. As the open communication grows, the employees will be more willing to participate in the safety and health program.

Safety and Health Committee

An effective safety and health committee is a good foundation to developing a positive safety culture. The safety and health committee helps to bring the top management and employees together in a non-adversarial cooperative effort to promote the safety and health performance of organization. It is also a medium for a continuous two-way communications between all levels of management and employees.

Safety and Health Professional

Safety and health professionals play an important role to creating and maintaining a positive safety culture. As a high-level internal consultant, they can help to build a positive safety culture that sustains improved performance across the organization by offering advice to senior management. In addition, they will advice and assist all levels of staff on implementation and monitoring of the organization's safety and health management system so as to create an optimal safety culture throughout the organization.

Conclusion

Many organizations around the world are showing increasing interest in the concept of safety culture as an approach of reducing the potential workplace accidents.

Developing a positive safety culture may not be achieved quickly. It is an intensive procedure that requires the dedication of all members of the organization. Everyone will have unique responsibilities and will find cooperation among levels to be vital as it requires teamwork.

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Safety Tools of the Trade: A Learning Experience

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Abstract

The Safety Profession is not an exact science; rather it is a culmination of many tools such as experience, training, testing, investigation, analysis, documentation, intuition, and opinion. Safety in the workplace has one common thread, incident/accident prevention. Safety is practiced in many languages and with emphasis placed on different priorities. To learn safety and practice the trade, one has to use the tools available. This paper highlights some tools of the trade used in the profession of safety and its far reaching applications to members of the profession.

Introduction

Management of change, management of chaos, management of safety – all three initiate change. To keep up with today's dynamic workplace, safety management tools have been developed and implemented through the revolution of the computer age and applications for mobile hand phone devices. Safety methods and tools are the mainstay of developing prevention methods, investigation documentation, and generating metrics for program effectiveness. What could be misconstrued by non-Safety Professionals is that safety can be performed in front of a computer. Those who are well versed in Safety understand safety starts with top management support and flows down to each and every employee in the office, field, industry or business. A closer look will introduce you to some Safety Tools of the Trade and processes that can be used to more efficiently manage a safety program.

Discussion

From the historical files, doing an inspection meant grabbing a checklist and putting it on a clip board; digging for the last inspection report from the files cabinet; locating a working flashlight; donning a pair safety glasses; grabbing a mask; and for hazardous locations using litmus paper or a gas monitor. Today, the computer provides the inspection paperwork such as Safety Data Sheets informing the inspector on line real time what type potential hazards are involved, what the last inspection reports identified, and what personal protective equipment is required. The best Safety and Health Programs involve every level of the organization, instilling a safety culture that reduces accidents for workers and improves the bottom line for managers. When Safety and Health are part of the organization and a way of life, everyone wins. In the past management usually did not see the results of safety inspections, investigations, and risk mitigations for days and sometimes weeks.

To obtain management commitment, the safety coordinator has to “sell” safety to management. Given management's desired output, the safety coordinator has to show that safety contributes to that desired output. Usually this means demonstrating that safety saves money, saves time, increases production, reduces costs and lowers insurance margins. How will safety benefit management's goals? Through positive actions, reactions, cost savings and metrics. While it is not all about the numbers, it does boil down to the dollars. A majority of businesses and companies view safety as a necessary expense, but hope to never have to divest in the event of a mishap or death. Some managers believe this scenario will never happen to them, those can be

misleading last thoughts. Many companies set up their goals and objectives to meet company and employee needs. Safety is not on all companies' first and foremost priority lists. Therefore, company objectives are generally not to pay fines, rather be proactive and put safety first. It is quite possible to put a price tag on safety if one knows where to look, and interestingly enough, by following “Training for Performance System” (TPS) methods provides the safety coordinator or safety trainer with a comprehensive tool for effectively implementing a safety (training) program and truly making it work. Using TPS analysis methods to accomplish the Worksite Analysis and Hazard Prevention and Control portions of the OSHA guidelines, the safety coordinator is provided with the information necessary to determine that cost benefit. It is important to note, therefore, that when using TPS, obtaining management commitment is not necessarily the first step after all. Conducting the worksite analysis and determining hazard prevention and controls will actually provide the information needed to get management's support.¹ Training for Performance System, Procedural Work Analysis, Systems Analysis, and Process Safety Management are but a few Safety Management Tools examined in this paper. These safety tools are tried and proven true to management.

To make a job or task flow, a Procedural Work Analysis takes a specific task from a job description's task inventory and breaks it down into its sequential steps. From a management perspective, this is important as reported accidents or injuries will often be associated with specific tasks. For example, “pulling beds” or “carrying sheetrock” may frequently be listed as a cause of back injuries; or “cleaning bathrooms” may frequently be associated with chemical burns. By breaking the task down into its sequential steps, it may become obvious as to why such injuries occur. For example, it may be determined that in order to “pull the bed,” the housekeeper must crouch down in an awkward position to grab the bed frame in order to pull the bed out from the wall; or that “carrying sheetrock” can cause back injuries because sheetrock is heavy, awkward, and must be carried up stairways to upper floors because it won't fit in elevators. These are attributed to ergonomic factors as well and can have costs associated to correct the workers station.

Another tool is a Systems Analysis and may be used if the problem seems to be system related. For example, if employees report that they are frequently sent to do tasks for which they are not adequately trained, thereby jeopardizing their health and safety, it may be necessary for the safety trainer or coordinator to

perform a systems safety analysis to determine why this is occurring. Management becomes involved when work production slows, or minor incidents occur and are reported. The information provided by these analyses should give a fairly good indication as to what the exact problem is and allow for ways to implement mitigation actions or techniques.

One other tool managers use to find the correct solution to the problem falls under the OSHA guideline element of Hazard Prevention and Control or TPS mentioned above. Here, a safety trainer or coordinator must apply the Industrial Hygiene Hierarchy theory of control technology. This theory states that when addressing safety hazards, a specific order of control technology should be utilized. The various different safety controls are, in order:

- Engineering controls
- Administrative controls
- Work practice controls
- Personal protective equipment, and remedial controls

By following TPS models mentioned above, the safety trainer or coordinator is provided with all the tools necessary to meet the elements necessary for a successful health and safety program as described in OSHA guidelines. TPS tools are more powerful and more specific (and therefore more useful) than similar tools outlined in the Department of Vocational Technical Education's *Occupational Health and Safety Program Manual*. While the TPS model descriptions, industrial hygiene controls, and safety hazard examples provided in this paper are generalized at best, any safety trainer or coordinator familiar with TPS should be able to utilize it to improve safety and health performance in their workplace.²

Process safety management is an analytical tool focused on preventing releases of any substance defined as a "highly hazardous chemicals" by the EPA or OSHA. Process Safety Management (PSM) refers to a set of inter-related approaches to manage hazards associated with the process industries and is intended to reduce the frequency and severity of incidents resulting from releases of chemicals and other energy sources (US OSHA 1993). These standards are composed of organizational and operational procedures, design guidance, audit programs, and a host of other methods. For hazardous and production oriented businesses, the process safety management program is an excellent management tool and is divided into 14 elements. The U.S. Occupational Safety and Health Administration (OSHA) 1910.119 defines all 14 elements of process safety management plan. Process safety leads to a numerical as well as a systematic approach to safety. Given the type of industry, business, or process, OSHA encourages and demands PSM be fully implemented and supported by management.

The 14 Elements of OSHA Process Safety Management Program (PSM) chiefly consist of the following:

- Process Safety Information
- Process Hazard Analysis
- Operating Procedures
- Training
- Contractors
- Mechanical Integrity

- Hot Work
- Management of Change
- Incident Investigation
- Compliance Audits
- Trade Secrets
- Employee Participation
- Pre-startup Safety Review
- Emergency Planning and Response



All of those elements mentioned above are interlinked and inter-dependent. There is a tremendous interdependency of the various elements of PSM. All elements are related and are necessary to make up the entire PSM picture. Every element either contributes information to other elements for the completion or utilizes information from other elements in order to be completed. Management uses the metrics processed by PSM as indicators or predictors for potential process problems or worker hazard mitigation. Process Safety Information (PSI) information might be considered the keystone of a PSM Program in that it tells you what you are dealing with from both the equipment and the process standpoint. In order to be in compliance with the OSHA PSM regulations the process safety information should include information pertaining to the hazards of the highly hazardous chemicals used or produced by the process, information pertaining to the technology of the process and information pertaining to the equipment in the process.³ Information pertaining to the hazards of the highly hazardous chemicals in the process should consist of at least the following:

- Toxicity information
- Permissible exposure limit
- Physical data
- Reactivity data
- Corrosion data
- Thermal and chemical stability data
- Hazardous effects of inadvertent mixing of different materials that could foreseeably occur.

Information pertaining to the technology of the process should include at least the following:

- A block flow diagram or simplified process flow diagram
- Process chemistry and its properties
- Maximum intended inventory

- Safety upper and lower limits for such items as temperatures, pressures, flows or compositions
- An evaluation of the consequences of deviations, including those effecting the safety and health of the employees.

Information pertaining to the equipment in the process should include following:

- Materials of construction
- Piping and instrument diagram (P&IDs)
- Electrical classification
- Relief system design and design basis
- Ventilation system design
- Design codes and standards employed
- Material and energy balances for processes built after May 26, 1992
- Safety system (for example interlocks, detection, or suppression systems)

The employer should document that equipment complies with Recognized And Generally Accepted Good Engineering Practices (RAGAGEP). For existing equipment designed and constructed in accordance with codes, standards or practices that are no longer in general use, the employer should determine and document that the equipment is designed, maintained, inspected, tested and operating in a safe manner.

A Safety Reliability tool to ensure maintainability of the program to the highest standards is the OSHA Voluntary Protection Program (VPP). The VPP promotes effective worksite-based safety and health. In the VPP, management, labor, and OSHA establish cooperative relationships at workplaces that have implemented a comprehensive safety and health management system. Approval

into VPP is OSHA's official recognition of the outstanding efforts of employers and employees who have achieved exemplary occupational safety and health. The intent of VPP is "to assure so far as possible every working man and woman in the Nation safe and healthful working conditions and to preserve our human resources - (1) by encouraging employers and employees in their efforts to reduce the number of occupational safety and health hazards at their places of employment, and - (2) to stimulate employers and employees to institute new and to perfect existing programs for providing safe and healthful working conditions." In practice, VPP sets performance-based criteria for a managed safety and health system, invites sites to apply, and then assesses applicants against these criteria. OSHA's verification includes an application review and a rigorous onsite evaluation by a team of OSHA safety and health experts. VPP Began in 1979 as a California experimental program. Then in 1982, OSHA formally announced the VPP and approved the first site. In 1998, Federal worksites became eligible for VPP. The rest is history, as over 1500 sites have become VPP qualified. VPP System Sub-Elements are comprised of management commitment, employee involvement, contract employee coverage, and safety and health management system annual evaluation.

OSHA approves qualified sites to one of three programs: (1) Star: Recognition for employers and employees who demonstrate exemplary achievement in the prevention and control of occupational safety and health hazards the development, implementation and continuous improvement of their safety and health management system. (2) Merit: Recognition for employers and employees who have developed and implemented good safety and health management systems but who must take additional steps to reach Star quality. (3) Demonstration: Recognition for employers and employees who operate effective safety and health management systems that differ from current VPP requirements. This program enables OSHA to test the efficacy of different approaches. Specific Federal VPP Criteria Compliance with 29 CFR 1960, Basic Program Elements for Employee Occupational Safety and Health Programs: Documentation supporting the notification of your Designated Agency Safety and Health Official (DASHO) of your intent to apply to the VPP; A copy of your Agency's current Annual Occupational Safety and Health Report to the Secretary of Labor. Any applicable elements should be noted and corrected; Injury and Illness incidence rates (IIIR) and lost workday injury and illness rates (LWDIIR) for the most recent 3 calendar years. (Include rates for contractors whose employees work 500 or more hours at your worksite in any one quarter.) To qualify for STAR, your rates must be below the current, comparable private sector Basic Labor Statistic (BLS) rates; for MERIT your rates may be above the BLS averages. In the rare event that equivalent private industry rates do not exist, rate comparisons will be made against similar government agency sites, or the government as a whole. Also, a copy of your Federal Occupational Injury and Illness Log for the most recent 3 calendar years must be provided to OSHA as well.

Conclusion

Does a safety and health program really make a difference? Definitely it does. There are four crucial questions you should be

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asking. Taking the four parts of TPS which are Safety and Health Payoffs, Management Systems and Safety and Health Integration, Doing a Safety and Health Checkup, and Creating Change as management discriminators provides answers to these questions in detail. The detailed answers are found in the four modules of the OSHA eTool*. Safety and health payoffs, only the best Safety and Health Programs involve every level of the organization instilling a safety culture that reduces accidents for workers and improves the bottom line for managers. Safety tools are only as good as the person using them. Managers all across the United States, North America, and the World understand death is final and very costly. Every employee regardless of nationality deserves a safe and healthful workplace to conduct business. In the United States, the Occupational Safety and Health Administration is the ever overarching watchdog to aid in compliance, but it starts with each and every employee/employer. One of OSHA's reliable safety enhancement programs is the Voluntary Protection Program or VPP and has reduced accidents and inspection requirements at many U.S. sites qualifying for the program status. As previously stated, Safety is a Top Down program given the support of upper management if a safety culture is instilled. When Safety and Health are part of the organization and a way of life, everyone wins!

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Process Safety Management, WIKIPEDIA The free source

OSHA's [Safety and Health Topics Page](https://www.osha.gov/dsg/topics/safetyhealth/index.html) [https://www.osha.gov/dsg/topics/safetyhealth/index.html], [Fact Sheet](https://www.osha.gov/Publications/safety-health-management-systems.pdf) [https://www.osha.gov/Publications/safety-health-management-systems.pdf, 567 KB PDF*, 2 pages] or refer to [Safety and Health News – Success Stories](https://www.osha.gov/SLTC/etools/safetyhealth/news.html) [https://www.osha.gov/SLTC/etools/safetyhealth/news.html]

Footnote (1) This information is calculated annually by the Office of Partnership and Recognition and is based upon the injury and illness data submitted every year by the VPP participants.

eTools are electronic Compliance Assistance Tools that provide guidance information for developing a comprehensive safety and health program. Although Safety and Health Programs are required by some states, there is no general OSHA requirement for such a program. Therefore, this eTool includes elements that go beyond specific OSHA mandates, such as recommendations for good industry practice. As indicated in the [disclaimer](https://www.osha.gov/SLTC/disclaimer.html) [https://www.osha.gov/SLTC/disclaimer.html], eTools do not create new OSHA requirements. [https://www.osha.gov/SLTC/etools/safetyhealth/]

About the Author



Steve S. Austin is a Certified Safety and Occupational Health Official in Industrial Safety and a Certified Master Level Safety Instruction with over 20 years in the profession. He has achieved a Bachelor of Business Administration in Management Information Systems, Master of Science in Management, and is a safety lead for the Missile Defense Agency. He instructs part-time for Texas A&M safety program and resides in Madison, Alabama.



Travelers Lured Abroad by Great Holiday Deals Urged to Remember Travel Health

Professor Peter A. Leggat, WSO-CSE/CSM/CSS/CSSD, World Safety Collaborating Centre for Travel Health and Safety, Anton Breinl Centre, James Cook University, Townsville, Australia; Travel Health Advisory Group, Australasian College of Tropical Medicine, Brisbane, Australia*

There was a record 1.138 Billion international arrivals in 2014, according to data released by the United Nations World Tourism Organization (UNWTO).¹ This was an increase 4.7% on the previous year. The Americas was the best performing region with 7% growth followed by the Asia Pacific region at 5%¹

Travelers are being urged to seek travel health and safety advice in preparation for their upcoming holidays abroad.

The most recent research reveals that up to two thirds of travelers may not be allowing enough time to ensure adequate protection against vaccine-preventable diseases.² Travelers should preferably allow at least 6-8 weeks before their travel if they want to ensure they are adequately protected against the full range of potential infectious diseases related to their travel.

Allowing enough time to ensure adequate protection is paramount for people travelling to at-risk destinations. Last minute vaccination will not protect travellers against the full spectrum of infectious diseases, such as Typhoid, hepatitis B, influenza and many others. Furthermore, research shows that towards half of the people surveyed who did not get or even consider a vaccination, did not think that vaccination was necessary, and nearly one in three did not get vaccinated despite travelling to a destination where vaccinations are recommended.²

Sometimes there is confusion regarding what vaccinations are required but not seeking advice means that travelers are putting themselves at risk. While many people think they know about disease risks, the risk levels change and seeking professional advice from a doctor is the best way to determine if there is a significant risk.

Some Useful Websites

Centers for Disease Control and Preventio, USA. <http://wwwnc.cdc.gov/travel>

CIA World Factbook, USA. <https://www.cia.gov/library/publications/the-world-factbook/>

National Travel Health Network and Centre, UK. <http://www.nathnac.org/>

World Health Organization. International Travel and Health. <http://www.who.int/ith>

Department of Foreign Affairs and Trade, Australia. <http://www.smarttraveller.gov.au/>

Travel Health Advisory Group, Australia. <http://www.welltogo.org.au>

*The Travel Health Advisory Group (THAG), Australia, is a joint initiative between travel industry and travel medicine professionals that aims to promote healthy travel amongst travelers. The Anton Breinl Centre, James Cook University, is a Member of THAG.

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About the Author



Prof. Peter A. Leggat is currently head of the School of Public Health, Tropical Medicine and Rehabilitation Sciences at James Cook University (JCU) in Australia, where he has served for more than 20 years. Professor Leggat is well regarded for his contributions to the development of the WSO internationally, in particular, namely: his prolonged experience and involvement with the WSO, his ongoing commitment to WSO Collaborating Centers, his numerous contributions to WSO publications, his contributions to WSO conferences, and his high professional stature in the field of safety. Professor Leggat is a current member of the WSO Board of Directors.

30th Annual WSO International

Environmental and Occupational Safety and Health PROFESSIONAL DEVELOPMENT SYMPOSIUM

18-20 SEPTEMBER 2017 | TUSCANY SUITES & CASINO | LAS VEGAS, NEVADA USA

Symposium Theme: Enhancing Knowledge, Professionalism, and Networking

Our ever-changing world, which has become smaller through new methods of communication, continually demands adjustments in how we live our lives and how we work, how we learn, how we share new information, and how we comply with new laws, regulations, and demands of the changes in global trade.

In this 42nd year of the World Safety Organization, we remind ourselves of the WSO Objectives: to encourage the effective exchange of information and experiences between and among the members of the WSO; to collaborate with other international organizations in conducting activities of mutual concerns, interests and directions; to promote the continuous upgrading of the safety and accident prevention technology and these fields related to loss of lives, property, and environment; to strive for a universal level of professionalism and competence among its members and WSO non-members whose functions are related to safety; to perform such other necessary acts and functions relevant to the WSO overall theme of "Making Safety A Way of Life ... Worldwide."

Symposium Format

The Symposium will provide a unique opportunity for the corporate managers and executives, safety, health & environmental professionals, advocates of safety and accident prevention, leaders of safety organizations and WSO members from around the world where the WSO is represented through the WSO International/ National Offices, WSO Chapters, and individual members. Participation in the Symposium will provide a forum for information exchange, networking, professional contact with other members, safety professionals, but most of all, learning about new programs and professional knowledge at sessions, panels and workshops presented during the Symposium. The Symposium format consists of presentations, lectures, panels, workshops and plenary sessions. As a part of the program, Symposium participants are invited to take part in the "WSO Global Safety Roundtable" discussion where the suggestions, comments, resolutions, etc., will be formatted for submission to governmental legislation and Missions of the United Nations, International Labor Organization, World Health Organization, and similar rule-making groups on the local, national and international levels.

Symposium Topics

Symposium topics include, but are not limited to: occupational safety and health, environmental safety and health, ergonomics, systems safety management, security, industrial hygiene, hazardous materials management, transportation safety, construction safety, off-the-job safety, recreational safety, safety of the workplace, disaster preparedness, as well as legislative topics on the national and global scale.

International Participants

The Symposiums of the World Safety Organization are always international in scope. WSO members and non-members from Europe, Asia, Australia, Africa, and the Americas are frequent participants at the WSO Symposiums and Congresses.

Symposium Venue



Set just two blocks from the Las Vegas Strip, this Mediterranean-inspired all-suite casino hotel is two miles from the Las Vegas Convention Center.

Understated suites have free basic Wi-Fi, flat-screen TVs, kitchenettes, and sitting and dining areas. Sophisticated 2-bedroom suites add whirlpool tubs.

Dining options include an Italian restaurant/bar, a pub, a cozy eatery with sandwiches and pastries, and a cafe with a 24-hour breakfast menu. Other amenities include a spa and a casino with live

entertainment, plus a fitness center, two pools, a business center, and laundry facilities.

WSO Awards Banquet

WSO Awards Banquet is scheduled on Monday evening, September 19, to honor individuals, corporations, organizations, and other groups for their concerns in the protection of people, property, resources, and the environment. If you wish to submit a nomination, a list of all WSO Awards, along with the requirements for each, and the WSO Awards Nomination Brochure may be found on our website.

Call for Speakers

SUBMIT YOUR ABSTRACT NOW!

Using the form in this packet or downloaded from the WSO website, please submit an outline/abstract of your presentation. All abstracts submitted will be reviewed, and authors will be notified if the presentation has been accepted. Deadline for abstract submission is 15 May 2017. Upon notification of acceptance, the completed presentation must be submitted prior to 1 July 2017 for publication in the "Symposium Proceedings."

You may also submit your outline/abstract online: <http://worldsafety.org/online-outlineabstract-submission/>

Manuscripts/Papers/Presentations

- Format for publication in the Symposium Proceedings: Papers should be written in concise language (English) and should be typed, double spaced, using only one side of the paper. Number the pages and leave margins (lower and upper margins 1" or 2.54cm; left and right margins 1-1/4" or 3.17cm). A separate title page should contain the title, author's full name, qualifications, and a half-page résumé, together with a complete mailing address. Please submit text composed in Microsoft Office Word (MsWord), via email attachment or copied to a USB drive and mailed to us.
- Illustrations, tables, and graphs may be submitted. Color photos are acceptable. Type legends for any photos in double spacing on separate pages.
- Statistical data should be expressed in SIUs (Standard International Units), as far as is practicable.
- References should be cited in the text by superior numbers and a full list of references given at the end of the paper in numerical sequence. References to books should include author's surnames and initials, full title, place of publication, full name of publisher, and date of publication. References to journal articles should include author's surnames and initials, full title of article, full title of journal, date of publication, volume number, issue number, and page. The accuracy of references is the author's responsibility. Check each reference in the manuscript and again in the proofs. References should be listed on a separate page.
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Schedule of Dates for the Receipt of the Speaker's Documentation

15 May 2017	Completed "Paper Outline/Abstract" with indication of length of the presentation/workshop.
31 May 2017	<ul style="list-style-type: none">• Résumé/bio: 100-150 words• Abstract: 150-200 words, double-spaced• Bio: 100-150 words, double-spaced
1 July 2017	Paper for publication in the "Symposium Proceedings," speaker's photo, and an updated bio
15 August 2017	Conference Registration Form and Fees must be received to confirm participation in the Symposium Program.



Please forward the completed forms to WSO World Management Center

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2017 SYMPOSIUM PAPER OUTLINE/ABSTRACT FORM

30th International Environmental & Occupational Safety & Health Professional Development Symposium

Symposium Theme: "Enhancing Knowledge, Professionalism, and Networking"

September 18-20, 2017 • Tuscany Suites & Casino | 255 E. Flamingo Road | Las Vegas, Nevada 89169 USA | 1-877-887-2261 for Reservations

Speaker Information

Please print or type.

NAME	
TITLE	COMPANY/AFFILIATION
COMPLETE MAILING ADDRESS	
ADDRESS LINE 2 (if needed)	
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PERSONAL PHONE [] Landline [] Cell/Mobile	EMAIL

Paper Information

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TITLE
AUTHOR(S)
BRIEF OUTLINE: 150-200 WORDS (or you may enclose an Abstract)
BIO: 100-150 WORDS
LENGTH OF PRESENTATION (please select one) [] 30 min [] 45 min [] 1 hour [] Other _____ (please specify)

Based on the information received from you in the "Paper Outline/Abstract," the Symposium program will be formatted. If the length of the presentation would be in conflict with the program scheduling, you will be contacted regarding any changes.

I plan to attend the full conference: [] YES [] NO, I will attend only (please circle): Monday Tuesday Wednesday

I will be accompanied by spouse or guest: [] YES [] NO Name(s): _____

Audio-Visual Equipment*

Please indicate which audio-visual equipment listed below you will require for your presentation:

[] Laptop Computer [] LCD Projector [] None Required

*Please note: Any additional audio-visual equipment which may be required must be paid for by the speaker.

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2017 SYMPOSIUM INDIVIDUAL REGISTRATION FORM

30th Annual WSO International Environmental & Occupational Safety & Health Professional Development Symposium
September 18–20 • Tuscany Suites and Casino • 255 E. Flamingo Road | Las Vegas, Nevada 89169 | USA • 1-877-887-2261 for Reservations

Registration Procedure:


- Please complete registrant information portion of this form. • Check/tick your registration fee(s) and enclose payment with the registration form.
- Kindly send the completed registration form and payment on or before August 17, 2017. • Letter of confirmation will be sent to you upon receipt of your registration and payment.
- Online registration form is also available: www.worldsafety.org/register

Hotel Booking/Reservation:

- Symposium venue will be the Tuscany Suites & Casino. The hotel has blocked rooms for Symposium participants at the following discounted rates: \$75 (net) per night, single or double occupancy, Sunday–Thursday; \$125 (net) per night, single or double occupancy, Friday & Saturday.
- Please contact the Tuscany directly at telephone 1-877-887-2261 no later than August 17, 2017, to make your reservation.
- You must identify yourself as a WSO Symposium attendee upon reservation with the hotel to avail of the discounted rate. Our hotel rooms are of limited slots; thus, please make your reservation as early as possible.

Symposium Registration Fees: Please choose desired fee (check/tick box)

PARTICULAR	Payment before May 31	Payment During the Months of June and July	Payment During the Month of August	Payment During the Month of September
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Delegate: Non Member	<input type="checkbox"/> \$575.00 (US)	<input type="checkbox"/> \$675.00 (US)	<input type="checkbox"/> \$725.00 (US)	<input type="checkbox"/> \$775.00 (US)
Speaker	<input type="checkbox"/> \$300.00 (US)	<input type="checkbox"/> \$300.00 (US)	<input type="checkbox"/> \$300.00 (US)	<input type="checkbox"/> \$300.00 (US)
Student / Military / Law Enforcement / Firefighter / First Responder	<input type="checkbox"/> \$100.00 (US)	<input type="checkbox"/> \$100.00 (US)	<input type="checkbox"/> \$100.00 (US)	<input type="checkbox"/> \$100.00 (US)
Other Fees:		PLEASE NOTE <ul style="list-style-type: none"> • WSO Corporate Members may avail the following discounts: <ul style="list-style-type: none"> ➢ 5% over-all on registration fee for five (5) attendees ➢ 10% over-all on registration fee for ten (10) attendees ➢ 20% over-all on registration fee for twenty (20) attendees • Registration fee includes: <ul style="list-style-type: none"> ➢ Kits, Symposium materials, and attendance of all Technical Presentations to be issued on-site. ➢ Daily snacks (daily lunch and dinner not included) • All payments (USD) should be made in advance. 		
Delegate/Speaker Awards Banquet	<input type="checkbox"/> \$55.00 (USD)			
Spouse/Guest Awards Banquet (per add'l person)	<input type="checkbox"/> \$55.00 (USD) No. of Add'l: _____			
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- 50% will be refunded for cancellation until August 1, 2017.
- There will be no cancellation or refund allowed after August 1, 2017. A substitute may be designated at any time.

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BUSINESS PHONE:		FAX:	
CELL PHONE:		HOME PHONE:	
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EDUCATION (degree(s) held):			

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*) FOR AFFILIATE MEMBERS ONLY:

Only FULL TIME PRACTITIONERS in the safety environment/ accident prevention and allied fields are eligible for the WSO Affiliate Membership. Please briefly describe your present employment or enclose your current résumé.

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*Members of the WSO,
by virtue of their acceptance of membership
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are bound to the following Code of Ethics
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associated with the WSO:*



Members must be responsible for ethical and professional conduct in relationships with clients, employers, associates, and the public.



Members must be responsible for professional competence in performance of all their professional activities.



Members must be responsible for the protection of professional interest, reputation, and good name of any deserving WSO member or member of other professional organization involved in safety or associate disciplines.



Members must be dedicated to professional development of new members in the safety profession and associated disciplines.



Members must be responsible for their complete sincerity in professional service to the world.



Members must be responsible for continuing improvement and development of professional competencies in safety and associated disciplines.



Members must be responsible for their professional efforts to support the WSO motto:

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