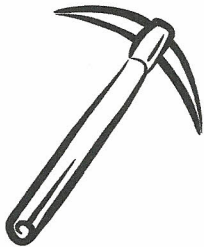# WORLD SAFETY JOURNAL
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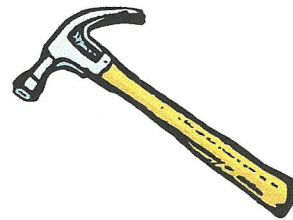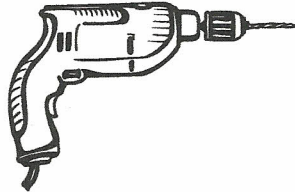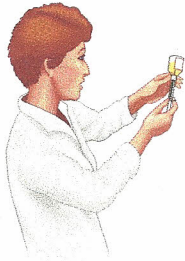
WORLD SAFETY ORGANIZATION (WSO)

Profile

The WSO was founded in 1975 in Manila, The Republic of the Philippines, as a result of a gathering of over 1,000 representatives of safety professionals from all continents at the First World Safety and Accident Prevention Congress. The WSO World Management Center was established in the United States of America in 1987 to be responsible for all WSO activities, the liaison with the United Nations, the co-operation with numerous Safety Councils, professional safety/environmental (and allied areas) organizations, WSO International Chapters/Offices, Member Corporations, companies, groups, societies, etc. The WSO is a not for profit corporation, non-sectarian, non-political movement to **"Make Safety a Way of Life"**.

World Safety Organization Activities

The World Safety Organization:

❖Publishes WSO Newsletters, World Safety Journal - ESP, and WSO Conference Proceedings.

❖Provides a network program linking various areas of professional expertise needed in today's international community.

❖Develops and accredits educational programs essential to national and international safety and establishes centers to support these programs.

❖Annual awards include the World Environmental/Occupational Safety Person Award, WSO James William Award, WSO Educational Award, WSO Concerned Citizen Award, WSO Concerned Safety Professional, WSO Concerned Company/Corporation Award, WSO Concerned Organization Award, Chapter/International Office of the Year Award, WSO Award For Achievement In Scientific Research and Development and International Award.

❖Provides recognition for safety publications, films, videos and other training and media materials that meet the WSO required educational standards.

❖Receives proposals from professional safety groups/societies for review and if applicable, submits them to the United Nations for adoption.

❖Establishes and supports divisions and committees to assist members in maintaining and updating their professional qualifications and expertise.

❖Chapters and International Offices located throughout the world provide contact with local communities, educational and industrial entities.

❖Organizes and provides professional support for international and national groups of experts on all continents who are available to provide expertise and immediate help in times of emergencies.

Membership Benefits

The World Safety Organization:

❖Publishes the "WSO Consultants Directory" as a service to its Members and to the Professional Community. Only WSO Certified Members may be listed.

❖Collects data on the professional skills, expertise and experience of its Members in the WSO Expertise Bank for a reference when a request is received for professional expertise, skill, experience.

❖Provides a network system to its Members whereby professional assistance may be requested by an individual, organization, state or country on a personal basis. Members needing assistance may write to the WSO with a specific request and the WSO, through its Membership and other professional resources, will try to link the requester with a person, organization or resource which may be of assistance.

❖Provides all Members with a Membership Certificate for display on their office wall and with a WSO Membership Identification Card.

❖Awards a certificate of Honorary Membership to the corporations, companies and other entities paying the WSOMembership and/or WSO certification fees for their employees.

❖Members receive WSO Newsletters, and other membership publications of the WSO.

❖Members are entitled to reduced fees at seminars, conferences and classes, given by the WSO. This includes local, regional and international programs. When continuing Educational Units are applicable, an appropriate certificateis issued.

❖Members who attend conferences, seminars and classes receive a Certificate of Attendance from the WSO. Forindividuals attending courses sponsored by the WSO, a Certificate of Completion is issues upon completion of each course.

❖Members receive special hotel rates when attending safety programs, conferences etc., sponsoredby the WSO.

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Membership: The World Safety Organization has members that are full time professionals, executives, directors, etc., working in the safety and accident prevention fields and include university professors, private consultants, expert witnesses, researchers, safety managers, directors of training, etc. They are employees of multinational corporations, local industries, private enterprises, governments and educational institutions. Membership in the World Safety Organization is open to all individuals and entities involved in the safety and accident prevention field. Regardless of race, color, creed, ideology, religion, social status, sex or political beliefs.

Membership Categories

✓**Associate Member:** Individuals connected with safety and accident prevention in their work or interest in the safety field. This includes students, interested citizens, etc.

✓**Affiliate Membership:** Safety, hazard, risk, loss and accident prevention practitioners working as full time practitioners in the safety field. Only Affiliate Members are eligible for the WSO Certification and Registration Programs.

✓**Institutional Member:** Organizations, corporations, agencies and other entities directly or indirectly involved in safety activities and other related fields.

Annual Membership fee in United States Dollars is as follows:

Student Membership	$ 35.00	Associate Membership	$ 55.00
Affiliate Membership*)	$ 80.00	Institutional Membership**)	$185.00
Corporate Membership**)	$1,000.00	**Please circle the membership you are applying for**	

*) For your countries fee rate, please contact the World Management Center at info@worldsafety.org

**)For this membership, please indicate name, title and mailing address of the authorized representative.

APPLICATION FOR WORLD SAFETY ORGANIZATION MEMBERSHIP

Please print or type:

Name (Last, first, middle): _____

Complete Mailing Address (please indicate if this is a Home or Work address):_____

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Only FULL TIME PRACTITIONERS in the safety/environmental/accident prevention and allied fields are eligible for the WSO Affiliate Membership. Briefly describe your present employment position, or enclose your CV. _____

_____

Please specify your area of professional expertise. This information will be entered into the WSO "Bank of Professional Skills" which serves as a pool of information when a request for a consultant/information/expertise in a specific area of the profession is requested.

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with infection occurring primarily during the rainy season. Humans and animals are believed to acquire the infection by inhalation of dust, ingestion of contaminated water, and contact with contaminated soil, especially through skin abrasions. Person-to-person transmission can occur. There is one report of transmission to a sister with diabetes who was the caretaker for her brother who had chronic melioidosis. Two cases was preceded by a clinical history of chronic prostatitis in the source patient (Inglis, Sousa, 2009).

From a public health point of view, melioidosis is a disease of mainly tropical locations, particularly in Southeast Australia. It has been recognized in many parts of the tropics and in a few subtropical locations. Cases occur sporadically throughout the endemic region, particularly during the tropical rainy season. People with occupational or recreational exposure to moist soil, dust particulates, or surface water are at greatest risk. Numerous reports include rice farmers, other agricultural workers, building site laborers, soldiers, miners, and a variety of indigenous groups (Inglis, Levy, Merritt, Hodge, McDonald, Woods, 2009).

Health Effects and Clinical Features
In most workplace environmental situations, exposure to toxins, allergens, and chemicals, to name a few, can result in a wide range of complex health effects. Contracting melioidosis provides long-term health effects and ongoing therapies in which may require acute treatment or treatment long after the individual has left the company or even the workforce (Inglis, Levy, Merritt, Hodge, McDonald, Woods, 2009).

The clinical presentation of melioidosis is varied from an acute fatal, septicaemic illness, to an abscess-forming infection and asymptomatic exposure, later leading to a severe septicaemic illness. The feature of septicaemic melioidosis is that it can occur a long time after initial exposure and can reoccur after several days or weeks of apparently adequate intravenous antibiotic treatment. This feature of septicaemic melioidosis prompts recommendations for expensive and comprehensive follow-on eradication treatment for several months (Cadogan, 2010).

Comorbidities and Predisposing Factors
Several comorbidities such as diabetes, chronic renal failure, and high alcohol consumption are strongly associated with severe infection and poor outcomes. However, many reports show very few accurate, point-source outbreaks of melioidosis, with some sources describing a dormant subclinical infection. Other forms of severe infection include pneumonia that does not respond to conventional antibiotic therapy, and central nervous system infection, which has a high mortality rate. Even in regions familiar with the infection, the mortality rate is high for these forms of melioidosis (Currie, Jacups, Cheng, Fisher, Anstey, 2004).

Statistical Representation of Melioidosis
Melioidosis is endemic in Southeast Asia, with the greatest concentration of cases reported in Vietnam, Cambodia, Laos, Thailand, Malaysia, Myanmar (Burma), and Northern Australia. Additionally, melioidosis has been encountered in the South Pacific, Africa, India, and the Middle East. In many of these countries, Burkholderia pseudomallei have such prevalence that it is common contaminate found on laboratory cultures. Although

seen primarily as a tropical disease, a unique outbreak occurred in France in the mid 1970's, thought to have been brought in by a panda to the Paris Zoo, with isolated cases occurring in Mexico, Panama, Ecuador, Haiti, Brazil, Peru, Guyana and in the states of Hawaii and Georgia. (Short, 2002)

During the 2010 period in Australia seven melioidosis cases were reported with an age range of 38 to 62 years. Melioidosis was notified in five non-Aboriginal and two Aboriginal people. Most cases lived or worked in remote regions of Western Australia or the Northern Territory, and two cases acquired their infections while traveling in Asia (Hanna, Humphreys, Brookes, Messina, Raulli, 2010). With this in mind, the 1997/1998 floods in Katherine resulted in 43 cases of melioidosis, five deaths because of the disease, and in 2000, 12 people contracted melioidosis resulting in four deaths. Large-scale mortality has also been observed in Malaysia, Thailand, and Singapore. In Malaysia, 19 people died within 48 hours of contracting the disease. (Currie et al, 2000).

Individual and Family Effects
Employees must take reasonable care to ensure their own safety and health at work and the safety and health of others affected by their work. Therefore, it is important that employees understand the compliance requirements given by their employer, where those instructions are for their own safety and health (Stranks, 2007).

In Western Australia, the principal legislation governing workers' compensation and injury management is the Western Australian Workers' Compensation Injury Management Act (1981). The Act provides compensation for workers or for dependents of workers where death is a result from such an injury, management of workers' injuries with the objective of enabling a return to work, specialized programs, safety promotion to minimize the occurrence of injuries, and the resolution of workers' compensation disputes.

Effective injury management practices are an essential component in ensuring a sustainable and efficient workforce for the future of the organization and employees alike. Effective management assists employees' recovery and reduces the social and economic expenditure that result from employee absenteeism (Archer, Borthwick, Tepe, 2009). Injury management is commonly discussed within numerous documents, that is directed at enabling ill worker to return to work. However, as stated in Section five (5) of the Western Australian Workers' Compensation and Injury Management Act (1981), it is the responsibility of employers and workers to cooperate in this process, where medically supported.

Wider Health Implications
The health implication affecting the quality of life of a person cannot be allocated a true value although a monetary value is placed on such issues as grief, loss of independence, and financial strain to name a few. Although employee receives the direct result, such as melioidosis, the wider community and immediate family receive health implication by other means. Though the cost is a significant issue, the psychological well-being of family members and friends may be affected, influencing the physical health of individual's, dependant on the

severity of the injury or illness. This in turn impedes the health and well-being of others, imposing an indirect or direct health burden (Australian Safety and Compensation Council, 2009).

Financial Cost to the Employer
The cost of an illness such as melioidosis can be significant and ongoing to the employer. During the financial period of 2009 to 2010, 5.3 percent of the workforce (640,700 people) experienced at least one work-related injury and illness. The estimated fatalities associated with work-related disease were 45 fatalities during the 2007 to 2008 period with approximately 1470 claims associated with biological exposure (Safe Work Australia 2011). The estimated national cost to the community, employer, and employee collectively in the financial year of 2005 to 2006 was about $34.9 billion in relation to workplace injury and illness, with $7.8 billion representing compensation payments to households. However, this figure does not include the payment for pain, suffering, and early death (Linacre 2007). In light of the aforementioned, the economic cost to the employer rose by 18 percent ($10.2 billion) while the community incurred a 33 percent burden of about $27.1 billion (Australian Safety and Compensation Council, 2009).

Administration Costs
The cost accrued from legal representation, compensation, conduct of a non-biased investigation by an external agency, and other additional administrative resources can significantly impact on the financial situation of an organization to name a few. Although numerous articles describe the direct health implications, the significance of cost to an organization is not breached. Costs such as restructure or renaming an organization to offset public humiliation, or financial implications of fines or imprisonment are not raised other than that described by the National Occupational Health and Safety Commission (2004).

Indirect Costs
In addition to compensation pay-outs, indirect costs associated with workplace illnesses are associated with loss of production. This affects the employee and employer alike, as the employer must pay overtime to other employees while the employee has an increased financial burden due to reduced financial income. Furthermore, should highly skilled personnel be required, operational conduct may also be affected (National Occupational Health and Safety Commission, 2004).

Recruitment & Training
The costs associated with permanently or temporarily an ill worker may come in many forms. The utilization of advertising agencies, recruiting agencies, and providing training to the new or temporary employee incur a cost to the company. This may also be in the form of reduced production for a period until operational familiarity occurs (National Occupational Health and Safety Commission, 2004).

Absenteeism
Other hidden cost to the employer consists of absenteeism. In the United States of America it was estimated that workplace illness was responsible for an extra four days leave per worker with the annual cost estimated at $572 per worker (National Occupational Health and Safety Commission, 2004).

Risk Management and Associated Framework
There are currently no occupational exposure limits for biological contaminants. The essential difference between biological agents and other hazardous substances is their ability to reproduce. A small amount of a microorganism may grow considerably in a very short time under favorable conditions (Department of Consumer and Employment Protection, 2008).

Planning
Hazard identification and risk control are commonly perceived as part of the planning process of and organization. The planning process is to incorporate physical, financial, and environmental safety matters and those subjects associated with day-to-day operations or perceived as a crisis (Australian National Audit Office, 2000).

Notifications and Reporting
Under the Health (Infectious Diseases) Regulations 2001 there is a requirement for medical practitioners and others to notify the government health authorities of a large number of infectious diseases such as Anthrax, Q fever, Leptospirosis, and others occurring in an occupational environment. This is due to the high risks to public health in general. With the case of melioidosis, very few references are made to the reporting requirements, even with evidence of rapid onset and high mortality. The purpose of reporting requirements is to ensure that the department takes immediate steps to identify the sources of infection and implement the necessary action. Section 19.1 of the Occupational Safety and Health Act (1984) of Western Australia requires an employer to provide and maintain a workplace in which employees, contractors, and visitors are not exposed to a hazard. Employers also have a duty of care under Section 21 of the Act in relation to the safety and health of visitors. Employers are required under Regulation 3.1 of the Occupational Safety and Health Regulations 1996 to identify hazards and assess risk. In the case of melioidosis, this would be considered a hazard requiring identification, risk assessment and risk control.

Occupational Risk
Outdoors occupations engaged in regular exposure to moist soil or surface water is known to be at increased risk of melioidosis. However, cultivation or operations in lowland flooded areas comprise the highest form of risk group. Similarly, recent studies of melioidosis to mineworkers suggest that at a mine site with identifiable melioidosis contamination, a combination of careful occupational health measures, dust suppression and other environmental management measures mitigate infection risk. However, excavation activities on large industrial sites in tropical regions may result in exposure to concentrated biological aerosols, particularly during heavy rainfall. Suitable personal protective measures have yet to be designed and evaluated for workers in these tropical industrial environments (Armstrong, 2010).

Health and Environmental Impact Assessments
Health and environmental impact assessment performs as a component of a worker and public health analysis and assist in analyzing the health effects associated with any environmental impacts. By establishing a health risk assessment to identify discrete exposure, associated health risk factors, or

demonstrating compliance, the conduct of a health impact assessment (HIA) is integrated into the environmental impact assessment (EIA) process, thus providing a comprehensive analysis of pertinent health data collected, extending to the analysis of health outcomes (Epstein, Selber, 2002). These methodologies are incorporate into the decision making, risk management, and remediation processes but are commonly omitted from description of necessity.

Numerous reports discuss soil perturbations caused by construction and soil excavation work associated with melioidosis, with one report in particular discussing an outbreak in Western Australia during dry periods. In addition, extreme natural events such as monsoonal rains, cyclones, and flooding have a large impact upon landscapes and soil and such events have been reported to be associated with an increase of melioidosis incidence. However, the caused is prominent in all articles viewed, with assessment before the conduct of operations barely mentioned.

Training

As put forth by the Risk Management Advisory Standard (2000), training and personal protective equipment should be avoided unless there is no provision to utilize higher order elements of the hierarchy of control such as elimination, substitution and engineering. In the case of melioidosis, medical emergencies cannot be eliminated, substituted or re-engineered and there is no other provision but to have an exceptionally high level of training to meet the needs of the community. However, education of potential health concerns forms part of the information passage, allowing all personnel to make an informed decision as part of risk management (Stranks, 2007).

Policy and Procedures

As a catalyst for implementing a safe working system, policy must be implemented and relevant to the scope of the organization. Policy must be able to provide a framework for instigating, reviewing, and meeting occupational safety and health requirements and demonstrating an organization's commitment to continuous improvement and act in accordance with legislation. The content of each policy is to be understood by relevant personnel and should be reviewed on a periodic basis (Tranter, 2004). As described in AS/NZS 4801/2001 all service providers shall have extensive documentation of their critical work processes. This will include job safe assessments (JSA), safe work procedures and instructions that should be available to all relevant personnel.

Business Continuity Management

Business Continuity Planning (BCP) involves consideration to risk potential, substitution, choices and resource allocation. The structure of the BCP is based on methods used to measure what might happen and how likely it is to happen, and how to best choose the processes and resources that are required for the organization to continue to meet objectives under plausible circumstances that could occur. Business Continuity Planning is an integral part of an organizations' Risk Management Framework and is undertaken to ensure that stakeholders can rely on the continuation of services or products from the organization in the event of a crisis (Standards Australia, 2004).

Monitoring and Surveillance

Worldwide, it is estimated that around 320,000 workers die each year from communicable diseases caused by work-related exposures to biological hazards (Driscoll, Takala, Steenland, Corvalen, Fingerhut 2005). Monitoring may be used for the evaluation of a hazard and for assessing the effectiveness of control measures. The design and implementation of a monitoring program should be carried out by, or in consultation with, a qualified person (Work Safe Western Australia, 2009).

Monitoring of the work environment involves the measurement of atmospheric contaminants at selected locations in the workplace, personal monitoring involving the measurement of atmospheric contaminants, and biological monitoring comprising measurement of the concentration of a contaminant, its metabolites or other indicators in the tissues or body fluids of the worker. In some cases, biological monitoring may be required to supplement static or personal monitoring (Department of Consumer and Employment Protection, 2008).

Controlling health hazards from a specific contaminant, and the exposure of the employee to the contaminant is approaching the relevant exposure standard, or where biological monitoring indicates that an unacceptable exposure is occurring, immediate action must be taken to reduce the health hazard and intensive monitoring should continue (Department of Consumer and Employment Protection, 2008).

When a work activity involves the known prevalence of a biological agent, monitoring is more easily undertaken and measures can be taken to prevent exposure. However, the unintentional consequence of work such as dust, excavation, or agriculture activities, the assessment of the risk exposure is more difficult to anticipate, quantify or locate after the event (Kaestli, Mayo, Harrington, Ward, Watt, 2009). Very few authors provide incite into the management of melioidosis through the risk management hierarchy. Once hazards have been evaluated and control measures put in place, it is recommended that controls be monitored and reviewed for effectiveness. This can be achieved by appointing a designated safety representative or responsible person to review the controls at designated intervals (Standards Australia, 2007).

Employee Health Assessment

In some occupations, pre-employment and pre-deployment health assessments form part of a comprehensive occupational health and safety strategy. Post-location medical-surveillance may be valuable in relating employee health and illness data to exposure levels in the workplace (Stranks, 2007). This process has been in practice for quite some time in military forces around the world.

Communication and Documentation

The passage of relevant information relating to health and safety can be communicated through a number of means. The process of pre-shift meetings, shift handover, notice/message boards, and safety meetings, to name a few, all form part of the responsibility, commitment, and passage of information required by managers and supervisors alike. Formal records of all meetings and relevant safety alerts or incident findings, are a means to provide statistical content and information relevant to key performance indicators and quality assurance (Archer, Borhtwick, Tepe, 2009).

Conclusion

Melioidosis is a complex bacterial infection that includes a collection of overlapping disease entities, resulting from exposure to a contaminated environment. Knowledge of the epidemiology, biology, and ecology of melioidosis can be applied to improving disease surveillance, outbreak identification and environmental control. The absence of a vaccine and difficulty with both diagnosis and treatment place a heavy reliance on environmental health resources, which are often limited in melioidosis-endemic settings. As there are major costs associated with uncontrolled contact with melioidosis or similar pathogens, commencing from the time of contact for an undetermined amount of time, education, supervision, and monitoring of potential situations relative to

the risks associated to exposure to melioidosis will provide adequate tools in which to reduce the risk and illness (Barrett and Cameron, 2004).

Health and environmental impact assessments coupled with surveillance and investigation represent the most effective methodology in mitigation and prevention, but are frequently underplayed in the element of risk management (Stranks, 2007). Additionally, information gathered from these tools provide a base for introducing further management processes inclusive of establishing a health promotion model and program. However, cooperation is needed from all members of the workforce in the health and safety capacity in order to build an effective management program for this neglected tropical disease (Work Safe Western Australia, 2000).

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The Role of Effective Communication in Establishing a "Positive Safety Culture"

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Abstract

This paper describes the role of effective communication in developing a positive safety culture. Safety culture in any workplace is composed of individual and group values, attitudes, behavioral patterns and a level of commitment from all Stakeholders, including Senior Management, Supervisors, Line Workers, Laborers, and Third Party Contractors. In most workplace accidents, pollution or disasters and/or ineffective communication have played a role. For any organization to successfully negate these risks, a positive safety culture must be a common goal among all Stakeholders. It has been shown that effective communication between all Stakeholders is required to achieve a positive safety culture.

Key Words: Safety culture; Safety communication; Workplace safety and health management.

Introduction

The role of a "positive safety culture" in reducing the inherent risks of the workplace and therefore preventing workplace accidents, work related ill health, fatalities, equipment or plant damage is becoming increasingly recognized. The establishment of a "positive safety culture" in any workplace is a continual process. All stakeholders must want and expect the same end result. The end result must be "zero harm"; zero harm to individuals, the organization and to the environment (Williams, 2008, p. 41). Poor communication is known to be direct cause of workplace incidents, ranging from simple misunderstandings to multiple fatalities and un-repairable environmental harm (Cooper, 2002). For a *positive safety culture* to exist in any workplace, clear communication channels must exist between all Stakeholders. In the majority of workplaces, the Health and Safety Representative is a focal point for health, safety and environmental representation and discussion. Health and Safety Representatives require positive communication between themselves and all stakeholders to establish a positive safety culture. It cannot be taken for granted that all Stakeholders are perfect communicators in the workplace, due to the fact that each person's own personal and cultural biases, attitudes and perceptions blur the communication picture (Cooper, 2002).

It is reasonable to expect that all Stakeholders including floor workers, laborers, line supervisors, health and safety representatives, management, contractors and visitors equally contribute to achieving the end goal of "zero harm" (Wagner, Capezuti and Rice, 2009). Accumulating statistical evidence supports the fact that a lack of communication and understanding between Stakeholders is the most common factor underlying increasing risk in the workplace (Wiliams, 2008). History is littered with incidents, accidents and disasters occurring as a result of poor communication, such as the Piper Alpha disaster in 1986, where 167 men died due to a breakdown of the Permit to Work system (Pate-Cornell, 1993). As a result of this, effective communication should be viewed as the cornerstone of building a "positive safety culture", and an essential link in obtaining "zero harm" in the workplace (Williams, 2008, 41).

Methodology

A review of the role of effective communication is establishing a "positive safety culture" was conducted using Proquest Central Database. Included works were limited to English language and those published from 1998, up to and including, June 2011. In addition, one article was included that was published in 1993. As the aim of the literature review was to assess the role of effective communication in establishing a "positive safety culture", an initial search was performed using the keywords "positive safety culture" in all fields. This resulted in 2569 journal articles. The search was refined using the keyword "occupational" in addition to "positive safety culture". This narrowed the search results to 395 journal articles. This list was further refined to 50 journal articles with an additional search incorporating the keywords "communication", "occupational", and "positive safety culture". The abstracts of these 50 journal articles were reviewed and the content assessed as relative or not to the literature review topic. Thirteen journal articles were selected for inclusion in this

literature review.

What is Safety Culture?

The United Kingdom Safety and Health Commission in 1993 defined safety culture as *"the product of individual and group values, attitudes, competencies and patterns of behavior that determine the commitment to and the style and proficiency of an organization's safety and health program. Organizations with a "positive safety culture" are characterized by communications founded on mutual trust, shared perceptions of the importance of safety and confidence in the efficacy of preventative measures"* (Cooper, 2002, p. 31).

There are many difficulties and challenges with establishing a safety culture within an organization. Many organizations when faced with the seemingly 'David and Goliath' task of developing a safety culture within the workplace, simply feel helpless and overwhelmed. It is vitally important that the end goal is broken down in more manageable or subordinate goals and distributed amongst the Stakeholders accordingly to lessen the burden (Cooper, 2002, p.31). Distributing the workload of achieving a "positive safety culture" amongst all Stakeholders forces the Stakeholders to take ownership of their contribution, in a team oriented environment. It is accepted that safety culture constantly affects, and in turn, is constantly affected by other operational and administrative processes within an organization. For this reason alone, safety culture must be treated as a 'dynamic and live' document which must welcome constant amendments and change (Kelley, 1998), all while remaining compliant with the end goal of "zero harm".

Effective Communication Within an Organization

Workplace communication at its lowest level is conveying a thought or message from one individual to another, with that thought or idea being received, clearly understood and accepted. It is unlikely that two strangers communicating already know what the other individual's interest, personal bias, prejudice or understanding of the conversation topic prior to speaking to on another (Lauriski, 2004). Therefore, the risk stemming from mis-communication or misunderstanding in the workplace is constantly present. It is important for all Stakeholders to regularly monitor and evaluate their own effectiveness as a communicator. Being aware of the volume and tone of their own voice, giving the other person(s) full attention, and fully understanding what is being discussed are all basic communication skills. Minimal is to be gained by an individual portraying that they fully comprehend an instruction in the workplace when they do not understand and where someone's safety or health is concerned (Kelly, 1998).

Communication From Management

Breakdown in communications between Health and Safety Representatives and Upper or Corporate Management has been a longstanding issue (Drebinger, 1998). Various examples of communication failure between Health and Safety Representatives and Management have been illustrated. For example, a Health and Safety Representative might report to a supervisor who is a non-decision maker or who doesn't understand the importance of safety, or to a manager that doesn't view Health and Safety Representative's role as an important one within the organization. Additionally, there is the possibility that

either of the individual's reporting relationships were not clearly defined (Lamontagne, 2010). In many cases the Health and Safety Representative's thoughts, opinions and requests are overlooked due to lack of understanding in addition to a negative attitude displayed from Management.

To complicate matters further, many Chief Executive Officers (CEOs) and Corporate Executives have initiated approaches such as 'direct lines', 'open door policies' and 'top to bottom' communication channels (Hansen, 2004, p.48). These approaches have frequently failed as employees take advantage of direct communication channels to voice their problems and concerns. As a consequence, CEOs and Corporate Executives may be inundated and overloaded with phone calls and emails from employees (Hansen, 2004). The other less likely observed result occurs from the bypassing of Supervisors, tarnishing the Supervisor's credibility and resulting in the Supervisor being perceived as incapable of achieving their tasks and responsibilities. Ironically, a slower than normal response time from CEOs is guaranteed due to their already overloaded schedule, subsequently requiring additional staff member to look into their 'query' due to time constraints. If the communication channel had been followed as intended, from Employee to Supervisor, there would be not wasted time for any Stakeholder (Hansen, 2004). However, this negative behavioral trait is slowly being corrected, with management becoming increasingly aware of the financial gains a "positive safety culture" can bring to an organization. With a positive safety culture financial gains have been achieved through fewer workers compensation claims and higher employee attendance due reduce workplace injury rates, greater teamwork and increased overall productivity (Hansen, 2006).

Communication With Third Party Personnel in the Workplace

Third party personnel such as visitors, contractors and sub-contractors are an important and invaluable asset to the workforce. More often than not, Third Party personnel are brought onto a worksite, or become involved in a project, due to their expertise in a certain field, and without these personnel the undertaken project could not be completed. Although they may not have the same badge on their coveralls or shirt, or may be viewed negatively as an *outsider*, they have the right to expect that their safety and health will be a priority (Ayers, 2007).

Stakeholders that perform varying roles within the workplace will communicate with third party contractors during their stay and it is essential that all Stakeholders take responsibility for the matter in which they communicate with third party personnel. They must make certain that they have been clearly understood and listened to intently and ensure that feedback was given successfully (Ali, Abdullah and Subramaniam, 2009). It is the responsibility of the workplace manager to conduct their own audits, credibility checks and/or assess the previous safety records of any Contractors arriving at the site. For example, if a Contractor is required to conduct confined space work, it would not be appropriate to hire a company whose employee has breached the occupational health and safety regulations on a confined space safety recently on previous worksites. Only through effective safety communication will such issues be

readily eliminated from the workplace (Ayers, 2007).

Third party personnel must also be correctly inducted by a competent member of the workforce prior to commencing work as would a new employee recruited directly by the company. The fact that a contractor may only be required for a few hours to complete a specific task does not mean that he or she only needs to be 'partly inducted'. For example, third party personnel must be told of current lock out/tag out procedures, made aware of any environmental hazards such as chemicals in use. They must be able to accurately recognize the fire alarm and be given access to administrative safety tools such as current Safe Operating Procedure's (SOP's), Material and Safety Data Sheets (MSDS) and Permit to Work (PTW) (Ayers, 2007). Without workplace inductions, training, encouragement and knowledge supplied through communication from other Stakeholders these safety tools are of limited use and will not contribute to a "positive safety culture".

Communicating Safety Culture Strategies

In any organization Senior Management is responsible for maintaining the standards and guidelines set within their mission statements and safety policies (Patanker and Sabin, 2010). Senior Management must communicate to their workforce that they are pro-active in aiming towards a "positive safety culture" through various avenues. Participation in the review process of safety performance reports, policy or procedural protocol changes and accident reports or investigations are all examples of positive indicators of their commitment to safety (Patanker and Sabin, 2010). Supervisors are given many opportunities to communicate to other Stakeholders that they are striving for a safer workplace. Supervisors who regularly encourage other Stakeholders to participate in training and certification programs, peer and management protective equipment are commonly viewed as integral to the safe operation of any workplace. Supervisors of such nature are readily approachable, promoting effective safety communication between all stakeholders (Patanker and Sabin, 2010).

Can Safety Culture be quantified?

Job dissatisfaction, stress and fatigue are all key indicators of a "negative safety culture" within the workplace (Alavosius, 2008, p.184). In light of this, it may be beneficial for Management to know exactly how many times per day each and every Stakeholder was praised, encouraged and/or intimidated by other stakeholders. It may also be potentially useful to cross-reference that data perhaps to the same individual's productivity, to possibly predict which Stakeholders are likely to suffer from stress and/or fatigue.

There are many tools to quantify or measure how successful or unsuccessful safety culture is in any given workplace that includes examining the underlying safety values and assumptions of an organization, assessing the organizations written mission statement, leadership strategies used, organizational norms and the organizational history. A safety climate survey can be conducted to assess employees' attitudes, reactions and opinions about occupational safety and health policies, leadership and management. This provides a snap shot of the safety culture at one point in time. To assess the safety culture data can be collated from the amount of hazard identification cards submitted, the number of near misses reported or the frequency of pre-job safety meetings held prior to commencing work which can all be measured. However, it is the psychological, emotional, behavioral and attitudinal aspects of safety culture which cannot be slotted into a spreadsheet, which is unfortunate given these are the true indicators of a positive or negative safety culture (Cooper, 2002. Wagner, Capezuti and Rice, 2009).

Patankar & Sabin (2010) state that to assess an organization's safety culture both quantitative and qualitative research based data must be collected through the use of case study examination of undesirable events, incidents, accidents and successful recovery strategies used by people working for the organization. This will provide information about the lessons learned and what was done with this learning to improve occupational safety and health in the organization. When assessing a safety culture they recommend to conduct a survey analysis using a questionnaire. This will identify the employees' perception of occupational safety and health practices in the organization and the current safety climate. Part of this assessment should include a qualitative analysis through the use of field observations, by analyzing artifacts that are an outcome of the safety culture, through interviews, focus group discussions and by talking to as many people in the organization as possible about occupational safety and health practices. This will provide a description of the existing policies, procedures and practices in relation to occupational health and safety management. It will identify stories of past safety successes and failures, an understanding of group dynamics and will highlight the underlying values and assumptions held by the people who work for the organization. Quasi-experimental analysis should also be conducted to establish the casual field and results of actions taken to improve workplace safety and health management and practices. Patankar & Sabin (2010) state that the above methods of safety culture assessment provide a measurement of the safety culture and practices in an organization.

Importantly, workplaces must commit more time and financial resources to implementing systems or strategies to continually improve occupational safety and health practices and to monitor such aspects of the workplace and work processes if they are to achieve, and then maintain their goal of a positive safety culture.

Conclusion

It is essential that supervisors, management and health and safety representatives gain valuable insight into the current state of their workforce's safety culture through effective communication and cooperation in the workplace. It is also important that all Stakeholders are given some formal training in communication, and that it is not taken for granted that all Stakeholders are excellent communicators. The breakdown of communication between management and Stakeholders regarding workplace health and safety aspects is an area that needs urgent attention from both parties and accounts for the absence of critical safety initiatives in some organizations. Ineffective communication is responsible for causing excessive frustration and stress to health and safety representatives, who are employee representatives for workplace health and safety practices.

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Proceedings Of WSO Global Safety Roundtable XII 2010

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Abstract

Since the Inaugural Roundtable in 1995, the World Safety Organization (WSO) Global Safety Roundtable has become a regular event and an international safety "Think Tank", drawing on international representation from the WSO's annual educational meetings. The WSO Global Safety Roundtable XII 2010 was convened on the 20th of July 2010 to assist the WSO in its motto to Make Safety a Way of Life Worldwide as well as to assist in the formulation of specific proposals and resolutions for the WSO as well as the United Nations (UN) and its agencies. It was convened during the WSO 23rd International Environmental and Occupational Safety and Health Professional Development Conference, Tuscany Suites and Casino, Las Vegas, Nevada, United States of America. It sought to build on the resolutions presented at the previous Global Safety Roundtables. Fifteen representatives from five countries participated. The major issues arising from the Global Safety Roundtable discussion included: an improved WSO website, noting that the website has undergone a minor upgrade in appearance in the past 12 months; greater outreach by the WSO to other regions, such as Europe and Asia; focus on issues of importance to countries, such as agricultural safety; consider bilingual conference presentations for some of the sessions; circulate membership brochures to members to promote the WSO; consider email alerts on safety alert topics; upload the WSO Consultants' Directory onto the WSO website; and consider uploading pdfs of the newsletter and journal to website for greater international outreach. As far as possible, it was recommended that the WSO work through the WSO World Management Center and existing global safety campaigns.

Introduction

The World Safety Organization (WSO) Global Safety Roundtable XII 2010 was convened on the 20th of July 2010 to assist in its motto to Make Safety a Way of Life Worldwide as well as to assist in the formulation of specific proposals and resolutions for the United Nations (UN) and its agencies. It was convened during the WSO 23rd International Environmental and Occupational Safety and Health Professional Development Conference, Tuscany Suites and Casino, Las Vegas, Nevada, United States of America (USA). It builds on the resolutions presented at the previous WSO Global Safety Roundtables for which proceedings have been published for Roundtables I-IV and VIII-XI (Leggat, 1995; 1996, 1997, 1998; 2002; 2003; 2008; 2010; WSO, 1998). Fifteen representatives from five countries participated. Present (per sign-in Registers) at Global Safety Roundtable X 2008: Peter Leggat (Chair and Editor), Karen Biddlecombe, Dan Burgess, Victor Danmons, Joanne Teo Yu Jing, Uche Lilian Naanngh, Larry Reising, Dave Roberson, Vlado Senkovich, Donnie Scrubbs, Teh-Sheng Su, Michael Thomas, Margarita Thompson, William G. Thompson IV, Jung-Ping Yu. There were also a number of additional observers, who did not complete the "sign in" sheet.

Background

On the 26th of September 1995, Dr. Rashmi Mayur, Director of the International Institute for Sustainable Future, based in Bombay, addressed the delegates of the WSO 6th World Safety and Accident Prevention Congress in Memphis, Tennessee, USA, at the first WSO Global Safety Roundtable. The proceedings of this Roundtable have been published elsewhere (Leggat, 1995). The challenge was laid down for safety professionals to address the major issues in safety throughout the World. In addition to developing specific proposals and resolutions for the United Nations, it was proposed that a "Think Tank" forum be formed to brainstorm and develop 21st Century plans for the major United Nations agencies addressing all safety problems, whether in the factory, the home or the environment. Dr. Mayur promoted a book entitled, *The Earth First Reader: Ten Years of Radical Environmentalism* (Davis, 1995), and presented a copy of this to the WSO. Dr. Mayur has written a preface to this new Indian Edition/reprint.

The WSO Global Safety Roundtable became an annual event drawing on international representation from the WSO's annual educational meetings to provide the basis for this "Think Tank". In 1996, the participants of WSO Global Safety Roundtable II presented several proposed resolutions targeting five (5) key areas. These areas were:
- Road safety,
- International project funding,
- Child safety,
- Global emergency response, and
- Continuance of the global "Think Tank", as part of the work of this WSO Global Safety Roundtable (Leggat, 1996).

Subsequent WSO Global Safety Roundtables presented proposed resolutions focusing on areas such as environment compliance and development of international safety standards (Leggat, 1998; Mussett, 1998). It further proceeded to look at avenues to help the WSO interface with the UN and its agencies in order to develop an international awareness of these issues (Mussett, 1999). More recently, Global Safety Roundtables have focused on emergency preparedness (Leggat, 2004). Participants were reminded that the WSO has had Consultative Status Category II (NGOs) to the United Nations Economic and Social Council since 1987 (United Nations, Economic and Social Council, 2008). A common theme has been how WSO can better outreach to its membership and other professionals and groups working in safety (Leggat, 2008;2009).

Context of the WSO Global Safety Roundtable 2010

WSO Global Safety Roundtable XII was scheduled as a standalone afternoon session on the 23rd of July 2010 during the second last day of the WSO 23rd International Environmental and Occupational Safety and Health Professional Development Conference, Tuscany Suites and Casino, Las Vegas, Nevada, USA. This ensured that representatives from different countries could participate in the Roundtable without interfering with the educational programs conducted during the Conference. As such, the Global Safety Roundtable has become an important part of the WSO Professional Development Conferences. During the Roundtable 2010, 15 registered participants and several observers met for approximately one and a half hours (15:30-17:00 hours). The documented registered attendance has been given above.

Unlike a number of early Global Safety Roundtables, which had representation mainly from the USA, more recent Roundtables have had representation from various countries. This year, there were five countries represented, namely Australia, Canada, Nigeria, Singapore, Taiwan and USA. A variety of disciplines were represented including safety management, environmental safety, occupational safety, healthcare safety, workers' compensation, medical science, transportation safety, quality management, and safety engineering.

Discussion

The WSO Board Member and Past WSO President/Director-General (1997-199), Professor Peter Leggat, opened the Roundtable at approximately 15:30 with a brief review of the purpose of the Global Safety Roundtable and a review of the Proceedings of previous Roundtables; in particular Global Safety Roundtable XI (Leggat, 2010). The advent of the Wikipedia website for the WSO was mentioned (Anonymous, 2010). The President/Director-General, Dr. Vlado Senkovich, also attended the Roundtable and took the opportunity to address participants.

The focus of the 2010 Roundtable discussion was initially on how the World Safety Organization could better market itself and its conferences, which is a common theme in recent Roundtables. It was indicated previously that there may be a need for an annual WSO Member Forum, where an annual report of WSO activities would be given and provide an opportunity for discussion and feedback by members present (Leggat, 2010). The discussion at this Roundtable was wide

ranging. The Roundtable recommended the following actions:
- An improved WSO website, noting that the website has undergone a minor upgrade in appearance in the past 12 months.
- Greater outreach by the WSO to other regions, such as Europe and Asia.
- Focus on issues of importance to countries, such as agriculture safety.
- Consider bilingual conference presentations for some sessions.
- Circulate membership brochures to members to promote the WSO.
- Consider email alerts on safety alert topics.
- Upload the WSO's Consultants' Directory onto the website.
- Consider uploading pdfs of the newsletter and journal to website.

Generally, there was discussion from the Chair on what the Global Safety Roundtable could effectively deliver on, given that the WSO had limited resources. It was generally agreed that the Global Safety Roundtable was a useful forum for discussing global issues. It was decided that the Global Safety Roundtable XII would continue to be a catalyst for networking between roundtable participants. In 2009, this took the form of an electronic discussion on email, which replaced the formal face-to-face Roundtable at the 2009 conference because of time constraints (Leggat, 2010). A positive development for the Roundtable was an agreement from the WSO Board of Directors that they would accept a tabled submission from the Roundtable with specific resolutions contained therein, i.e. this report. The proceedings of the WSO Global Safety Roundtable 2009 were table at the WSO Board of Directors meeting in 2010.

The meeting was closed at approximately 17:00 hours by the Chair, Professor Peter Leggat.

Assisting the WSO Global Safety Roundtable
The WSO Global Safety Roundtable has become a regular feature of WSO regional and international conferences. It is hoped that all interested WSO members can continue to support the work of the WSO Global Safety Roundtable throughout the year, including the development of proposals for consideration at subsequent Roundtable discussions. WSO Members and other interested professionals should consider participating at the WSO Global Safety Roundtable 2011 in Tennessee, USA. WSO Members and other interested professionals who may be able to assist with the development and implementation of these proposals or resolutions or who wish to assist with the work of the WSO Global Safety Roundtable or its work with the UN should contact the WSO World Management Center:

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HOW TO ENCOURAGE OLDER PEOPLE TO REMAIN IN PAID EMPLOYMENT

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Abstract

This article reports the findings of a focus group discussion by 33 people from 5 countries to answer the question of "How do we encourage older people to remain in paid employment?" This focus group discussion was conducted at the World Safety Organization Roundtable XIII at the request of the United Nations Economic and Social Council. The following factors were identified. Consider older people's skills and abilities, ergonomic factors and individual differences, return to work after retirement, educational needs of older employees, motivation, the role of government legislation and offering older people contract work. Recommendations based on these themes were submitted to the United Nations Economic and Social Council and are included in this article.

Key words: Age and Work. Abilities and Age. Education. Motivation. Legislation. Cognitive abilities. Physical skills.

Introduction

The World Safety Organization Roundtable XIII was convened on the 18th July 2011 and commenced at 9.30am. Its purpose was to assist the World Safety Organization in achieving its motto to 'make Safety a way of life worldwide' as well as to complete the formulation of a proposal and resolutions for the United Nations (UN) in relation to encouraging the employment of older people as, particularly in developed countries, there is an increasing percentage of the population over 65 years old who have retired from working in paid employment.

This Global Roundtable focus group was convened during the World Safety Organization 24th International Environmental and Occupational Safety and Health Professional Development Conference in Robbinsville, Mississippi, United States of America. It built on the resolutions of previous World Safety Organization Global Round Tables for which proceedings were published by Leggat (1995, 1996, 1997, 1998, 2003, 2004, 2008, 2010) and by Mussett (1998, 1999).

Focus group research question

Participants were reminded by Dr Senkovich, who chaired this focus group discussion, that World Safety Organization has had consultative status category two (NGOs) to the United Nations Economic and Social Council since 1987 (United Nations Economic & Social Council, 2010). The United Nations requested the World Safety Organization Global Roundtable XIII participants to determine ways to encourage older people to remain in paid employment as worldwide there is a trend for countries to have an aging population that will need financial support.

The research question to be answered at the World Safety Organization Roundtable XIII was:
"How do we encourage older people to remain in paid employment?"

Methodology

Thirty three representatives [Greg Adkinson, Perry Ballard, Michelle Brown, Harry Conerly, Steven DiPilla, Fred Dudley, Shane Ellis, Herb Everett, Joey Friedmann, Zdena Hudson, John Ingram, Teressa Jackson, William Kroh, RaeAnn Lockwood, Mark McBrayer, Lon McDaniel, David North, Elizabeth Prazeres, David Robertson, Vlado Senkovich, Dennis Simon, Herb Sessner, Robert Sullivan, Michael Thomas, William Thompson IV, Margarita Thompson, Jason Townsell, (all from the United States of America), Janis Jansz (from Australia), Karen Biddlecombe (Canada), Dan Burgess (Israel) Li-Ching Tseng and Bing Shu Pan (from Taiwan)] all participated in the focus group discussion. It was determined that a focus group discussion was the most effective way to generate ideas to answer the question asked by the United Nations.

Results

Dr Senkovich highlighted how there was an aging population worldwide in developed countries and chaired the focus group discussion identifying ways to encourage older people to remain in paid employment. Ideas to encourage this that were provided by the participants included the following themes.

Consideration of older people's skills and abilities

With older people their mental and physical skills and abilities need to be considered. Older people have often developed an extensive knowledge of their work tasks so may be suitable to be employed as managers and educators.

Ergonomic factors and individual differences.

Focus group contributors identified that when considering employing older people what must be examined are ergonomic work factors, individual differences in skills, abilities and health and individual choices in the work that people were prepared to do.

Return to work after retirement

Worldwide in the oil and gas industry previous employees, after retirement, sometimes applied to return to work. These employees, who were usually skilled trades people, were offered their previous employment position with modifications made to tasks that they were expected to perform to take into account their physical ability restrictions (such as unable to climb ladders any more) and health needs (such as has high blood pressure so required to rest and relax for 15 minutes every two hours). These previous employees were always valued and employed by their past employer as there is a shortage of skilled workers in the oil and gas industry and employers have enough work to employ

them for a full work shift each day.

Educational needs of older people

In today's industry there are constantly new tools and ways to conduct work being invented. For example there are continual advancements in computer technology. If older people are going to be expected to work then there is a requirement for educational programs that meet their learning needs so that they can keep up to date with changes and remain competent in their work.

Motivation

A suggestion was made that peer pressure should be used to encourage older people to work and that it should be the expected norm that everyone works until they die. It was decided by some focus group participants that what needs to be identified is what would motivate people to work until they die, instead of letting people who have worked hard all of their adult life spend the last years of their life relaxing and enjoying the *fruits of their labor* and spending time with their family and friends. It was a consensus that different things motivate different people and the key to success was to identify what motivates each individual.

The role of government legislation

In some countries, such as Australia, there is no legal requirement for employees, or business owners, to retire from paid employment at a set age. This allows people with the required skills and abilities to continue to earn money in paid employment to support them self and their family. There are exceptions to this rule for some occupations, such as airline pilots, but for all other occupations there is anti-discrimination legislation that does not allow employers to discriminate against employment of people on the basis of age.

Against ongoing paid employment for older people

In the United States of America (USA) there is currently a problem with high levels of unemployment of many people who want work, but for whom no employment positions are available. Encouraging older people to remain in paid employment may further limit employment opportunities for college and university graduates and other people who need to work to be able to support themselves and their family. It was suggested by some group members that older people should only do unpaid work such as childcare for family and friends or unpaid work for worthy community charity organizations.

Contract work

In the United States of America Government employment positions, after employees retire (at age 65 years) they are allowed to do their previous employment duties working as a contractor. This is because the USA government is only allowed to have a set number of employees. Older employees must retire to allow new younger people to be employed by the USA government services. Allowing older employees to work as contractors allows business continuity because these people's knowledge is then not lost and they can assist with developing the knowledge and skills of the next generation.

Discussion

The European Network for Workplace Health Promotion (Morschhauser, M. & Sochert, 2006) defines older workers as people who are aged 55 to 64 years old, senior citizens as people who are 65 to 79 years old and very old people as those who are 80 years or older. These authors also record that "the employment rate for older workers " (people 55-64 years old) in the European Union "is at present only about 42% - compared, for example, with 59% and 62% in the USA and Japan respectively" (p. 9). The fact that so few people aged 55 years and older are continuing in paid employment and that many countries in the European Union are experiencing financial difficulties (Harvey, 2011) may have been a reason for the United Nations asked for the Roundtable XIII to focus on the question "How do we encourage older people to remain in paid employment?"

For the purpose of their research on "The aging workforce: An emerging issue in the mining industry" Fotta and Bockosh (2000) defined the elderly as 45 years old and over. In the American mining industry employees were expected to retire at 65 years old. The reason why many people retire from work at 65 years old is due to a financial decision that Bismark made. In Germany in 1900 Prince Otto von Bismark decided "that the Fatherland would support all its state workers who reached that age. As life expectancy at the time was less than 50 years it did not strain his treasury too much!" (Radford, 1987, p.4).

Boyne (2006) states that in Australia in 1885 the average life expectancy for Australian males was 48.7 years and for females it was 51.5 years. By 1996 the average life expectancy for Australia males was 75.2 years and for Australian females it was 81.1 years. It is predicted that in the first decades of the 21st century the average life expectancy for Australians will be 100 years (Boyne, 2006). The reduced mortality in Australia from 1885 until 1960 was considered to be due to improvements in health education, sanitation and medical care (Boyne, 2006). Current increases in life expectancy are considered to be due to health promotion activities that include people not smoking cigarettes, people exercising more, improved diet, improved infection control measures, a higher standard of living and advances in pharmacology and in medical technology.

In Australia the aging workforce is partly due to the post World War two baby boom as birth rates in Australia from 1945 to 1960 increased by 60%. Following this baby boom was a "baby bust" in which there was a marked decline in the number of babies born in Australia (Boyne, 2006). The "baby bust" has resulted in a smaller number of new workers entering paid employment. A similar phenomenon has occurred in many other countries. "By 2025 it is anticipated that approximately one in 10 of the world's population will be over 65 years old, and worldwide life expectancy will have reached 73 years" (WHO, 1998, cited in Pheasant & Haslegrave, 2006, p.80). In Australia the Australian Bureau of Statistics (2006) has estimated that by 2051 half of the Australian workforce will be 65 years or older. There are physical changed that can occur with increasing age that were considered by the focus group participants as factors that may affect the employment of older workers.

Physical changes that occur due to age

Musculoskeletal complaints among workers in physically demanding occupations were found to increase with age for both sexes in the study carried out by de Zwart, Broersen, Frings-Dresen and van Dijk (1997). This cross-sectional study was performed in order to identify any relationship between musculoskeletal complaints and age, gender or physically demanding work in the Netherlands. A self reporting questionnaire style was used to collect the data from active employees who performed physically demanding work. The results obtained indicated that physical working capacity declines with age and that older workers require longer recovery time after performing hard manual labor tasks. This can partly be explained by the fact that after 55 years there is a loss in lean body weight, due to a loss of bone density and the wasting of muscles which leads to a decrease in muscular strength (Pheasant & Haslegrave, 2006, Goldspink, 2005).

With regular exercise the loss is less. For example in China a "71 year old grandmother from the Shandong province has officially opened this year's pulling very heavy vehicles with a part of the body other than arms season in China. Wang Xiaobei managed to draw a fully laden four ton truck more than 65 feet using only a piece of rope, a handkerchief and her teeth. The senior accountant, who has already announced that dragging a train carriage will be her next project, credits her impressive strength to 30 years of martial arts training." (Olson, 2006, p.24).

After 40 years in men, and 60 years in women there is a decline in skin thickness (Pheasant & Haslegrave, 2006). This is due to a transfer of fat from the subcutaneous tissues to around internal organs of the body. Fat is also transferred from the body trunk to the hips, resulting in an increase in waist (abdominal) circumference. Having less skin thickness means that skin damage is more likely to occur if a person knocks their skin.

All of the above considerations relate to the proactive way that the employment of older workers was reported by focus group participants to be taken into account in the oil and gas industry where the employment of older skilled workers is valued.
Some effects of aging are reversible. For example, research studies conducted by Illmarinen in 1999 found that without exercise, after 45 years of age, there can be a decline in lung air capacity volume by 25%. Conversely, with continued aerobic exercise lung capacity can increase 25% within four years no matter what the person's age is.

Eye sight and hearing
Attwood, Deeb and Danz-Reece (2004) state that as people become older their visual acuity is reduced by 30% between the age of 20-60 years old, there is yellowing of the lens of the eye which reduces the amount of light that reaches the retina and that the retina and the nervous system work less effectively in decreasing the size of the visual field and the person's ability to see with low light levels. At around 40 years old there is a decrease in the accommodation power of the eye that affects a person's depth of perception and distance vision. Depth of perception is the ability to judge distance from objects and between objects. All this is caused by the deterioration of the muscles that contract and change the lens shape.

For men the median shift in hearing levels is a loss of hearing of

5dB at 35 years old, 12dB at 45 years old, 22dB at 55 years old and 35dB at 65 years old. In a young person the audible hearing range is usually 16-20,000 Hz. People over 80 years old are more likely to have a loss of hearing of the higher frequencies of sound above 10,000 Hz and usually have a hearing range of 50-8,000 Hz. For this reason Bridger (2009) states that it is better to lower (deepen) your voice when talking to older people. The reason for hearing loss is documented by Bridger (2009) as being due to neural/cochlear changes and is irreversible.

Postural stability
People over 60 years old are more likely to trip over objects than younger people because they do not lift their feet as high as they used to lift them (Bridger, 2009). People over 85 years old usually have an increase in postural sway. Bridger, (2009) writes that this is due to a deterioration of somatic feedback from the stretch reflex in the muscle spindles. There is an increased reliance on visual feedback that is slower to provide information than the intrinsic feedback from the person's muscles.

Bridger (2009) states that people over 55 years old have a lessening of their startle response. At a neurological level the startle response is linked to the emergency response for the loss of balance. Having a slower startle response makes the recovery of balance less likely and the potential to fall and be injured more likely. Ekdahl, Jarnlo & Andersson (1989) (cited in Bridger, 2009) recorded that females have better balance than males because their centre of gravity is lower. As a result of poor balance Bridger, (2003, p. 182) writes "Approximately 6,000 people die annually in the United Kingdom due to injuries caused by slips, trips and falls. Two-thirds of these are elderly."

From the above information it is evident that for many people there is a decline in physical abilities with increasing age after 20 - 85 years old. In industry, to compensate for, this many physically demanding tasks, such as digging iron ore out of the ground and lifting heavy objects, are now performed by machinery that is controlled by a human operator. For this reason mental abilities are becoming increasingly important for employment in many industries.

Mental changes
"At the Georgia Institute of Technology, psychologist Timity Salthouse, PhD., compared a group of very fast and accurate typist of college age with another group in their 60s. Since reaction time is faster in young people and most people's fingers grow less nimble with age, younger typist might be expected to tap right along while the older ones fumbled. Both typed 60 words a minute" (White, 1993, p.39). It was found that the older typist made fewer finger movements and read ahead in the text. This made them more efficient in their typing work and compensated for any losses in physical skills. Similarly Baltes and Smith (1990) found that in most work tasks, speed and precision was replaced by the many years of experience, wisdom and the motivation that workers over 60 years old brought to the work that they performed and it was these characteristics that made them such valuable employees.

"There are mental capabilities, like judgement and wisdom, that continue to improve as you grow older" (White, 1993, p39). The brain constantly adjusts the way that it functions and is able to

compensate for losses in efficiency. Between birth and about 20 years old the brain triples its weight even though vast numbers of brain cells die. However, under the influence of education and mental stimulation the surviving brain cells multiply their dendrite connections so that they improve communication with other cells. If one neuron fails, another neuron is able to perform its function as neighboring brain cells respond by adding dendrites to do the work of the lost cell. Repeated mental activity allows the messages in the brain to find the most direct pathway for information to travel through and this makes the brain activity more effective and versatile in recalling information.

Baltes and Smith (1990) found that people over 65 years of age had good problem solving ability due to wisdom and experiences gained over many years of working life. They reported that the ability to process complex problems in insecure situations improves with age. Research has shown that vocabulary improves with age. "Retired professionals, particularly teachers and journalist, consistently score higher on tests of vocabulary and general information than college students, who are supposed to be in their mental prime" (White, 1993, p.95). It has been found that the number of dendrites in the brain is related to the education level of the person, with college graduates having more dendrites than high school graduates (White, 1993). "Many aspects of memory are not a function of age at all but of education" (White, 1993, p. 40).

Individual differences
Focus group participants suggested that both ergonomic factors and individual differences be considered in relation to encouraging older people to remain in paid employment. Attwood, Deeb and Danz-Reece (2004) recorded that not everyone gains, or loses, abilities at the same age. Radford (1987, p. 9) agreed with this and stated "Homo sapiens is not homo-geneous at any age." People at any age can have a disability, not just people over 65 years old. "The rate of the decrepitude which comes with old age is highly variable. Part of this is just luck – a matter of the genes we are born with and the misfortunes we encounter along the way. Lifestyle is a major factor, however" (Pheasant & Haslegrave, 2006, p. 82). Factors that can affect people's aging process include diet, social attitude, work environment, presence of disease, level of physical activity, level of mental activity, socio-economic considerations, genetic factors and lifestyle (Molinie, 2003).

Some decrease in abilities can begin to occur in people at 20 years old, while others, particularly mental abilities, can improve with age. There is much variation in physical and mental changes that occur in each person due to aging. For this reason the interaction between age, occupational safety, health, injury and illness management is complex. A common cause of deterioration in a person's physical and in mental abilities is due to not using these abilities. The value of work as a source of personal identity and reward, remains a strong component of many aged person's life (Szymanski, Ryan, Merz, Trevino & Johnson-Rodriguez, 1996). WorkSafe Western Australia (2006, p. 20) reported "older workers are a cost effective resource. They can bring a vast range of skills and experience such as safety awareness, stress coping strategies such as forward planning, lower levels of sick leave and, in general, strong work ethics."

As a result of considering these factors the following conclusions and recommendations were made.

Conclusions and recommendations
To encourage older people to remain in paid employment the focus group developed the following seven positive themes through discussion. Consider:
* Older people's skills and abilities.
* Ergonomic factors and individual differences.
* Return to work after retirement.
* Educational needs of older people.
* Motivation.
* The role of government legislation.
* Contract work.

The eighth theme identified and discussed by participants was that in countries, like the United States of America, where there is a high unemployment rate for people who want to work, and who need to work for economic reasons, allowing people over 65 years old to continue to work in paid employment was depriving younger people of gaining employment and should not be allowed.

Based on these themes the following recommendations from the focus group participants were formulated for the United Nations Economic and Social Council to consider.

* In each country there should be no age based legal requirement for people to retire from paid employment. Anti-discrimination laws should be formulated and implemented to include no employment discrimination on the basis of age.
* It should be considered what motivates older people to want to continue to work and, where practical, employers should supply this reward.
* Ergonomic and health considerations should be included in the workplace and work processes for all people, including older people.

The experience and knowledge of older people should be used by employers to improve business profitability. A peer mentoring system could be developed where older employees with good work skills, and safe work habits, mentor younger employees. Suitable older employees could also be educated to become managers, staff educators and for other employment positions that used their workplace knowledge, skills and abilities.

* To enable older people to continue working effectively there should be specific educational programs that teach new work related skills to older employees so that they are able to keep up to date with the latest technological changes and new equipment use related to their work.
* As well as encouraging older people to work in paid employment, provide encouragement for financially secure people to do voluntary work that benefits their community. This assists these people to be physically, mentally and socially active.

As well as making the above recommendations for the United Nations Economic and Social Council to consider a recommendation was also made for World Safety Organization

Members to implement. It was identified by focus group participants that a strength of World Safety Organization was that this organization had many older experienced safety professionals who were willing to be peer mentors for the next generation of safety professionals. It was decided that relevant Technical Colleges and Universities, where occupational safety and health was taught, would be contacted about the availability of World Safety Organizational workplace safety, health and environmental professionals to be peer mentors for final year students to be able to share their knowledge and experiences with the next generation of workplace safety, health and environmental professionals.

Not all older professional people may want to be paid for their work and some may be interested in doing voluntary work that advances knowledge in their profession and work which provides community benefits.

This World Safety Organization Global Roundtable concluded at 11am. The next Global Roundtable will be held in Las Vegas, Nevada, USA in July 2012.

Acknowledgements.

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In Memory of Dr. Henk Hemerik

Dr. Henk was an asset to teh WSO International Office for Malaysia for he conducted numerous courses and workshops from the year 2000 to 2003 on Occupational Safety & Health and in particular, his specialty on Risk Management, Applied Risk Management, and Integrated Risk Management that always drew a sizable number of participants. He was competent, pragmatic and has vast knowledge on the subject matter. In all his courses and workshops, he made psychological adjustments to suit his audience.

Dr. Henk kept himself scrupulously up-to-date on occupational safety and health events. He always aimed for high quality and standards in whatever he did. Dr. Henk was instrumental in designing and conducting occupational safety and health courses for the WSO International Offices in the Philippines, Malaysia and Australia.

When the WSO International Office for Malaysia organized its second seminar in 2002 Dr. Henk was invited as "Guest of Honor", he took to the task without hesitation and gave the audience an enhancing opening speech that set the mood for the two day event. He was an inspiration to all audiences he spoke at.

Dr. Henk's passing is a great loss to the WSO and the occupational safety and health profession. He was a dedicated person who gave his life for upgrading safety in the Oil and Gas Sector in Holland, Australia, Philippines and Malaysia. We will miss Dr. Henk and have been fortunate to have him in our lives.

WSO Members remember Dr. Henk:

A message form Dr. Janis Jansz...
Dr. Henk Hemerik was a World Safety Organization Member who lived in Australia. He felt unwell in the evening of Thursday May 19, 2011, was taken to the hospital and died suddenly in Sir Charles Gairdner hospital at around 7 a.m. on Saturday May 21, 2011.

In Australia we remember many networking events that Henk Hemerik attended and educational presentations that he gave. I had the pleasure of working for about 10 years with Henk when he taught many occupational health and safety subjects and units of study in undergraduate and postgraduate courses at Edith Cowan University in Western Australia. International occupational health and safety students and safety professionals particularly appreciated it when Henk visited their country to teach occupational safety and health.

One of the good things about World Safety Organization is that it promotes and facilitates international networking of occupational safety, health and environment management professionals.

The story below is written by Dr. James C. Fernando, Director of the World Safety Organization National Office of Malaysia.

I first learned to know Dr. Henk sometime in May 2000 when he was introduced to me by Engr. Alfredo A. De La Rosa (then President-Director General- WSO) now Director- WSO International Office for the Philippines as a Guest Speaker for our WSO seminar 2000 held from 26 to 27 July 2000 which was organized by the WSO International Office for Malaysia. This seminar attracted a crowd of 125 participants form eleven countries. Dr. Henk presented a paper entitled "Globalization, Multiculturalism, Culture & Professionalism". During his presentation he was able to blend with the audiences and shared the happy memories and anecdotes he had while working in different countries and managed to capture the audience's attention. His seminar papers on the said topic were eventually published in the WSO-News Letter the following month.

I. List Of Awards:

( ) WSO Environmental/Occupational Safety Person of the year
( ) WSO James K. Williams Award
( ) WSO Concerned Citizen Award
( ) WSO Concerned Professional Award
( ) WSO J. Peter Cunliffe Transportation Award
( ) WSO Concerned Company/Corporation Award
( ) WSO Concerned Company/Corporation Honorable Mention Certificate
( ) WSO Educational Award
( ) WSO Concerned Organization Award
( ) WSO Chapter/National Office Of The Year Award
( ) WSO Award For Achievement In Scientific Research And Development
( ) WSO Glenn E. Hudson Award

II. Criteria For The WSO Awards:

Listed below are some criteria used in the selection of individuals, companies, corporation organizations, etc., for the awards of the World Safety Organization, also listed are the number of awards to which these presentations are limited. The support of the WSO purpose "...to protect people, resources, environment and property" and the support of the WSO motto "Making Safety A Way Of Life...Worldwide" are nominal for all awards.

WSO Environmental/Occupational Safety Person of the year award: (one award per year)

- *Individual, working full time in the field of environmental/occupational safety/health, hazardous materials management, or allied field, with national and international experience, etc. **
  Nominator: May be nominated by an individual or organization with an in-depth knowledge of the nominee's accomplishments.
  Criteria for Nomination: An individual who has shown above average support and dedication to the protection of people, property, resources and the environment on an international basis, fulfilling at least three of the following requirements (may be retired, does not have to be practicing full time in the safety profession at the time of nomination):
    - can document continuous involvement in safety or allied profession for a period of at least 10 years;
    - participated in a significant manner in the safety discipline work in at least five countries worldwide;
    - authored book(s)/articles/texts in his/her field of expertise, significant in nature, published in at least five countries worldwide; or an international publication distributed in at least 5 countries;
    - designed concept, process or some other notable invention, within the safety disciplines;
    - shown a significant support for the promotion of safety education and discipline;
    - other significant accomplishments may be submitted for review.

WSO James K. Williams Award: (one award per year)

- *Active Member of the WSO who has shown above average support and cooperation for the organization and was actively involved in the WSO programs, operations, etc., on a volunteer assistance and work basis.*
  Nominator: May be nominated by any member of the WSO with an in depth-knowledge of the nominees's accomplishments on behalf of the World Safety Organization.
  Criteria for Nomination: A member in good standing with the World Safety Organization, who has unselfishly provided significant assistance with and support of the programs of the WSO, as well as a strong dedication to the WSO purpose of protection of people, property, resources and the environment, and with a full support of the WSO motto "Making Safety A Way Of Life...Worldwide".

WSO Concerned Citizen Award: (one award per year)

- *Active Member of the WSO, who has shown above average support and cooperation for the community organizations and programs, volunteered his/her time to those programs, served on community boards, provided training etc.*
  Nominator: Must be nominated by an individual(s) from one of the organizations which benefitted from that individual's support, and who is familiar with and has an in-depth knowledge of the nominee's accomplishments in conjunction with the above volunteer work.
  Criteria for Nomination: A member in good standing with the World Safety Organization, who has unselfishly provided significant assistance with and support of the local community programs where safety was the most important aspect, as well as a strong dedication to the WSO purpose of protection of people, property, resources and the environment, and with a full support of the WSO motto "Making Safety A Way Of Life...Worldwide".

WSO Concerned Professional Award: (one award per year)

- *Active Member of the WSO, who has shown above average skills in design, leadership and supervision of environmental/occupational safety and health programs, hazardous materials management programs, transportation safety programs, etc.*
  Nominator: Must be nominated by an individual with an in-depth knowledge of the nominee's accomplishments, such as the Company/Corporation's Chief Executive Officer, Owner, Mayor, a group of co-workers with an approval of the immediate supervisor and company/corporation's head, Member of the Advisory Body of the WSO Chapter, etc.
  Criteria for Nomination: A member in good standing with the World Safety Organization; who exhibits total dedication and commitment to the protection of people, property, resources, and the environment through participation and personal involvement in professional safety activities.

WSO J. Peter Cunliffe Transportation Award:
(one award per year)

- *Active Member of the WSO, who has shown above average skills in design, leadership and supervision of transportation programs, etc.*

  Nominator: Must be nominated by an individual with an in-depth knowledge of the nominee's accomplishments, such as the company/corporation's Chief Executive Officer, Owners, Mayor, a group of co-workers with an approval of the immediate supervisor and company/corporation's head, Member of the advisory Body of the WSO Chapter, etc.,

  Criteria for Nomination: A member in good standing with the World Safety Organization; who exhibits total dedication and commitment to the protection of people, property, resources, and the environment through participation and personal involvement in professional safety activities.

WSO Concerned Company/Corporation Award:
(six awards per year; seven if no non-industrial entity is selected)

- *Company or corporation with an excellent safety program, safety record, etc., industrial in nature, with programs on off-the-job safety, environmental programs, etc.*
- *Company or corporation non-industrial in nature, with an excellent safety or environmental program, safety record, etc*

  Nominator: May be nominated by any individual or organization with an in-depth knowledge of the nominee's accomplishments.

  Criteria for Nomination: Company or corporation who is actively (and above average in) contributing to protection of people, property, resources and the environment through innovative programs; shows distinctive concern for the well-being of its employees and local community.

WSO Concerned Company/Corporation Honorable Mention Certificate:
(two awards per year)

- *Company or corporation with commendable support of environmental, occupational, safety, etc., programs. Industrial or non-industrial;* *

  Nominator: May be nominated by any individual or organization with an in-depth knowledge of the nominee's accomplishments.

  Criteria for Nomination: Institution, company, training entity, individual, etc., with an above average program of educational nature in the fields of environmental/occupational safety and health, fire science and safety, public safety, healthcare safety, transportation safety, or similar programs; actively (and above average in) contributing to the protection of people, property, resources and environment through innovative programs; with distinctive concern for the education of professionals and general public in the disciplines of safety and allied fields.

WSO Educational Award:
(three awards per year)

- *Institution, company, training entity, individual, etc., with an above average program of educational nature in the fields of safety, environment, public safety, healthcare safety, transportation safety, etc.* *

  Nominator: May be nominated by any individual or organization with an in-depth knowledge of the nominee's accomplishments.

  Criteria for Nomination: Institution, company, training entity, individual, etc., with an above average program of educational nature in the fields of environmental/occupational safety and health, fire science and safety, public safety, healthcare safety, transportation safety, or similar programs; actively (and above average in) contributing to the protection of people, property, resources and the environment through innovative programs; with distinctive concern for the education of professionals and general public in the disciplines of safety and allied fields.

WSO Concerned Organization Award:
(two awards per year)

- *Association, Society, Agency, etc., with an above average support of safety, environmental, etc., movement,* *

  Nominator: May be nominated by any individual or organization with an in-depth knowledge of the nominee's accomplishments.

  Criteria for Nomination: Association, Society, Agency, etc., with an above average support of safety, environmental, etc, movement; actively (and above average in) contributing to the protection of people, property, resources and the environment through innovative programs; with distinctive purpose and goals to enhance the safety awareness.

WSO Chapter / International Office Of The Year Award:
(one award per year)

- *The WSO Chapter/National Office of the year award is presented annually to recognize exceptional effort on the part of a WSO Chapter/National Office membership to promote WSO and the organization. Any WSO Chapter/National Office in good standing is eligible for this award.*

  Criteria for Nomination: Number of meetings held, ratio of percentage of chapter members attending meetings, quality and number of Chapter/National Office newsletters, special events conducted by the Chapter/National Office, number of activities held to promote WSO and the organization, number of new members, participation in the awards program, articles submitted and published in WSO Journal by Chapter/National Office members.

WSO Award for Achievement In Scientific Research And Development:
(one award per year)

- *The WSO Award for Achievement in Scientific Research and Development is presented to an individual or group who have made contributions to the advancement of WSO through research and development programs. Any individual (members or non-member) or a group is eligible. Selection is based on individual or group actions that significantly contributed to the effectiveness of the application of WSO programs in research and development.*

  Criteria for Nomination: **(a)** Direction or coordination of a major research project that led to the development of new approaches to the application of principles/techniques to a major system (transportation, nuclear, etc.) or product (automobile, aircraft, or other major consumer product) where significant increases in the safety of the user can be demonstrated. **(b)** The development of testing methods or standards that has contributed significantly to the safety interface between the system and the operator of the product and the consumer. **(c)** The development of testing methods or standards that has clearly enhanced the safety of research and development testing operations. Standards/methods must have been adopted and implemented to standard practice in a major system or organization. **(d)** Significant development in the process of evolving WSO as a true discipline.

WSO Glenn E. Hudson Award:
(one award per year)

- *The WSO Glen E. Hudson award is presented to a person(s) and or organization(s) for outstanding achievement or performance of special service in the advancement of the disciplines of WSO in a country other than the United State of America. The purpose is to recognize and*

growth of WSO outside the United States of America (USA). Person(s) or organization(s) residing outside the USA including US citizens are eligible. Non-U.S. citizens are not eligible for work performed in the USA.

Criteria for Nomination: Selection is based on such issues/contributions as: **(a)** Significant representation of the international community at International WSO Organization Conferences. **(b)** Papers on WSO that were published by the nominee in other countries other than the USA. **(c)** Participation and contribution at other international conferences on safety. **(d)** Clear demonstration of excellence in the application of WSO in countries other than the USA. **(e)** Papers submitted and published in the WSO Journal.

*) Membership in the WSO is not a requirement

III. Nomination Procedures:

The awards cycle is from 1 January to 31 December each year. Nominations for a given year are accepted in the WSO by May 15th, following the end of the award cycle. In order to keep things as simple as possible, a single award nomination process is used for all awards. Please read the instruction carefully and you will find that all the potential situations are covered. A letter format will be accepted as long as all the information is provided in the proper order. It is hard to provide to much justification for your nomination. The most frequent problem is having insufficient information to judge the validity of the nomination.

The submission must contain the following information in the order shown below.
1. Name of the award for which the nomination is being submitted.
2. Name of the individual, group, committee, organization , or firm being nominated.
   a. If nominating an individual: provide name, home address, and phone number and the employer's work address, phone, and email address.
   b. If nominating a group or committee: provide the name of the group or committee and the organization with which it is affiliated and the name, address, telephone number, and email address, of the chairperson.
   c. If nominating an organization or firm: provide the name, address, and telephone of the firm and the name, address phone number, and email address if applicable, of the chief executive officer, president, or owner.
3. Provide the name, address, telephone, and email address, of the person making the nomination.
4. If the nominee is an individual, name the employer and provide a brief description of the nominee's current position. If the nominee is a group, provide a description of the purpose of the group and the primary organization it supports.
5. Provide a description of the key outstanding accomplishments of the nominee. It must be clear exactly how the nominee meets the criteria for the award nominated.
   a. For individuals, provide a summary of the nominees educational and WSO related professional accomplishments. Enumerate the nominee's contributions to the WSO Organization, safety profession, and his/her employer and community.
   b. For groups, committees, organization, or firms, provide a summary of the nominee's contribution to the advancement of the WSO.
6. Provide the name, address, phone number, and email address if applicable, of three references that can provide comments concerning the nominee's performance. At least one reference must be a WSO organization member. Persons listed as references cannot be related to or employed by the nominee.
7. Provide appropriate supporting documentation to support the nomination. If the nomination is based on published works, provide copies of the document(s).

Submit all nomination to: WSO World Management Center, WSO Awards Committee, 106 W Young Avenue Suite F, PO Box 518, Warrensburg, Missouri 64093 USA

Nomination Form Example:

DATE:

NAME OF THE AWARD:

NOMINEE: Name
                Home Address
                Home Telephone
                Employer
                Work Address
                Work Telephone
                Email address and web site (if applicable)

NOMINATOR: Name
                Work Address
                Work Telephone
                E-mail address

CURRENT POSITION AND EMPLOYER:

KEY ACCOMPLISHMENTS:

REFERENCES: Three required; one of which is a current member of the organization that is being nominated.

SUPPORTING DOCUMENTATION: (Published paper, etc., if applicable):

WSO Code of Ethics

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

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

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

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

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

5. Members must be responsible for their complete sincerity in professional services in the world.

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

7. Members must be responsible for their professional efforts to support the WSO motto "Making Safety A Way Of Life...Worldwide".