News-Letter
WORLD SAFETY ORGANIZATION

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In This Issue

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27th Annual WSO

International Environmental & Occupational Safety & Health Professional Development Symposium

"Safety Across Multi-Disciplined Organizations with Global Lessons to Inspire Local Actions"

September 28–October 1, 2014
Sheraton Denver Tech Center • Denver, Colorado, USA

The Symposium presentations this year will focus on multi-disciplined cooperation between different organizations and cross-disciplinary research that addresses safety promotion and injury prevention. This important theme of the 2014 Symposium is how we learn from one another's experiences in different organizations and countries. The Symposium will focus on how to build connections and research partnerships between these different sectors.

Recent events highlight some of the challenges facing the industry, such as:

- The growing concern with government regulations on safety and the environment;
- The high costs and financial liabilities associated with incidents;
- The ever-increasing number of road accidents and high fatality rates;
- The growing concern over security issues in industrial facilities;
- Cyber security and information protection;
- The aging infrastructure and its impact on safety.

The Symposium will provide a unique opportunity for the WSO members from the USA to meet members from other countries where the WSO is represented through the WSO National Offices, WSO Chapters, or individual members. Participation in the Symposium will provide a forum for information exchange, networking, professional contact with other members, safety professionals, but most of all, learning about new programs and professional. The Symposium format consists of presentations, lectures, panels, workshops and plenary sessions. As a part of the program symposium attendees are invited to participate in the "WSO Global Safety Round-table" discussion where the suggestions, comments, resolutions, etc., will be formatted for submission to governmental legislation and Missions of the United Nations, International Labor Organization, World Health Organization, and similar rule-making groups on the local, national and international levels.

The annual Awards Banquet will be held in conjunction with the Symposium. Information on the nomination procedure may be found on the WSO website.

For additional information regarding the Symposium program, participation as a speaker, or registering as an attendee, please contact the **WSO World Management Center**. Please watch for updates on our website, or follow us on **Facebook!**

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A Message from the Chief Executive Officer

Lon S. McDaniel
Chief Executive Officer
World Safety Organization

One of our most important organizational assets is our reputation for ethical behavior, honesty and fair dealing. As you know, reputation is a very fragile asset that can easily be destroyed by the actions or failures of one or more of us. Because of unprecedented scrutiny of our organization's behavior, we need to emphasize and reinforce our commitment and adherence to the World Safety Organization (WSO) Code of Ethics. Conduct is your guide to your ethical and legal responsibilities with respect to your status as a member of the organization, as well as your dealings with other professionals, customers, and competitors.

Each member is personally responsible and accountable for helping the WSO maintain its reputation to the highest standards of integrity. Especially in times of rapid change, we must earn the trust and loyalty of others. There are no shortcuts or automatic answers to the choices we have to make in business today; however, we should decide these questions in ways that are consistent with WSO values.

I expect each member to review these standards every year in order to answer questions and to ensure compliance. Failure to comply fully with the Ethics Standards is misconduct. If you wish to report a possible violation of our Ethics Standards you may contact the WSO World Management Center.

As we continue to build the WSO to meet our expectations and live up to our name – to have the ability to meet our customers' challenges – let's make certain that integrity and honest dealing are always central to how we conduct our Professional business.

As a leader, I have spent time considering how we should measure the success of the WSO. I keep coming back to two questions. First, do our members find the WSO rewarding as a place to learn, share ideas, network with colleagues, and enjoy fellowship? Second, are we helping our members to be effective and successful in their professional lives? These are easy to articulate but hard to measure in practice! At the upcoming symposium, I'm going to seek out my colleagues with expertise in safety outcomes for ideas on how we could define and assess "member-reported issues and outcomes."

Change can be leader-driven, but it is often the members that have some of the best ideas for an organization. A big part of implementing the WSO Vision will involve cataloguing member needs and concerns in our theme areas of research, education, and communication. In the coming months, you will hear from me and the WSO staff with questions about how we can build a better WSO for you. I hope you will take the time to give us the feedback we need to make the changes that you want.

With such skilled, dedicated and caring people making up our organization, I know that the WSO is ready for new beginnings. We have the opportunity to build a great future based on a remarkable past, a future rooted in the hearts and minds of the people who created the wonderful fabric of the World Safety Organization's overall theme: "*Making Safety a Way of Life…Worldwide."*

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 the 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 or 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 service to 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."*

Any individual, member, officer, employee, or representative of any outside agency/organization may file a complaint against any member, officer, or employee of the WSO. Once a complaint has been filed, a thorough and confidential investigation will be completed by the Ethics Committee Chairman. If the charges are found to be true, the punishment shall range from:

a) Informal counseling by a member of the WSO Executive Action Committee.
b) Formal counseling by a member of the WSO Executive Action Committee.
c) Written letter of admonition placed in the member's file for one year.
d) Written letter of counseling place in the member's file for one year.
e) Written letter of reprimand placed in the member's file for one year.
f) Written letter of reprimand placed permanently in the member's file.
g) Individual being placed on a formal probation that could result in removal from WSO and suspension and/or revocation of membership and credential privileges.
h) Permanent disbarment from the roles of WSO and revocation of credentials.

International Solutions for Improving Community Health and Workplace Safety

WSO Global Safety Round Table Report for the United Nations' Economic and Social Council

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Abstract

Community and workplace safety improvements are an important concern for the United Nations Economic and Social Council. At the 26th World Safety Organization International Environmental and Occupational Safety and Health Symposium focus group research was conducted with participants from twelve countries to identify international emerging issues in community and workplace safety and to develop risk control recommendation for these concerns. This article describes the outcomes of the focus group findings which were that health and safety education should be taught to children in pre-school, improvements were required for sports safety, there was a need to involve everyone in the organization in workplace safety and health management and that a key issue for the present and the future is workplace environmental management.

Key words: Pre-school education. Sports safety. Health. Safety. Environmental management. Indoor air quality. Occupational exposure limits.

Introduction

World Safety Organization has Consultative Status to the United Nations Economic and Social Council. At the 26th World Safety Organization International Environmental and Occupational Safety and Health Symposium held at the Hilton Hotel in Mission Valley, San Diego, California, USA, on the 9th of September 2013, a Round Table discussion was held to provide advice to this United Nations Council on international solutions for improving community health and workplace safety. At this Round Table focus group discussion there were over 70 participants who came from the following countries: Australia, Canada, Lebanon, Malaysia, Nigeria, Panama, Philippines, Qatar, Saudi Arabia, Taiwan, United Arab Emirates and the United States of America.

From this focus group four main discussion themes emerged:

- Health and Safety Education to be Provided for Pre-School Children
- Sports Safety
- Involving Everyone in the Organization in Workplace Safety and Health Management
- Workplace Environmental Management

Health and Safety Education to Be Provided for Pre-School Children

Findings of the focus group participants were that much of what people learn begins in early childhood, so this is where health and safety needs to begin. Pre-school children often take infections home to other members of their family. For this reason for children in all countries in the world an important skill that should be taught in pre-school is how children need to correctly wash their hands, and when children need to wash their hands to prevent the spread of infections. Pre-school children also need to be taught to drink water from a clean cup, not a drinking fountain, as many children using a common drinking fountain assist with the spread of throat infections, particularly those caused by streptococcus. Using simple hygiene measures can reduce community mortality rate from 60% to 2.2% (*Simkin, 2012*).

Children can also have a positive effect on improving health-related behaviors of their parents. An example of this is when children encouraging their parents not to smoke cigarettes. Children that learn early in life about the ill health effects of cigarette smoking are likely to tell their parents to cease smoking as they want their parents to be healthy, but also because they do not want their own health harmed by side-stream smoke (second hand smoke). Having their child disapprove of their actions may encourage parents who smoke cigarettes to stop smoking. Today, smoking is not allowed in public buildings and workplaces in many countries.

Educating children in pre-school about health and safety will enable the children to bring their knowledge to encourage their parents and other family members to have a high standard of health and safety practices in their home and community. Also if a young child learns to consider health and safety in everything the child does, when they do go to a workplace for their employment, they will be in the habit of automatically finding the safest and healthiest way to perform work tasks. This will have long-term benefits of decreasing workplace injuries, work-related ill health and payments for workers compensation.

Continued on Page 4

Continued from Page 3

Sports Safety

While parents may consider health and safety for many aspects of their children's life, this does not always extend to when their children play sports. This may be due to the competitive nature of the activities and the desire to see their child win. Some examples of child sports injuries include repetitive strain injury when the same sets of muscles are used repetitively, such as when a child spends a long period of time as a pitcher at a baseball game. To minimize the occurrence of repetitive strain injuries,

- Asthma
- Catastrophic brain injuries
- Diabetes
- Exertional heat stroke
- Exertional hyponatremia
- Exertional sickling
- Head-down contact in football
- Lightening
- Sudden cardiac arrest

Harmon, et al. (*2011*) identified that between January 2004 and December 2008 there were 273 sudden deaths of participants during sporting activities in Members of the National Collegiate Athletics Association in the United States of America (USA). Mathews, et al., (*2012*) examined the statistics for marathon runners' deaths in the USA for the period 2000 to 2009 and identified that for the 6 women and 22 men (a total of 28 deaths in 10 years) who died due to participation in a marathon run the most common cause of death was a cardiac arrest.

To maintain good health and safety, before training or a sports game commences, a risk assessment should be conducted that considers sports participant's health, environmental factors, the work processes that are part of the sport, and the skills and abilities of individual players. For example, in certain parts of the world children ride sheep or bulls for sport. In animal riding sports, children should be taught to play in a variety of positions on a sports team, particularly when they are young, and should perform no one-muscle action for more than 30 minutes without a rest or change of required muscle actions. Other problems related to playing sports that may affect the players' safety and health are environmental factors such as playing sports outdoors when the weather is very hot, or playing sports when lightening is crackling in the sky. Casa, et al., (*2012, p.96*) has recorded that the 10 most common causes of sudden death in sports are:

environmental factors that should be considered include the temperature (ensure the weather is not too hot or cold); the ground, if there is snow or uneven ground, soft or hard ground; any obstacles or barriers on the ground. If the rider could fall from the animal they are riding, then the rider should be wearing personal protective equipment in the way of clothing and should also wear a helmet to protect their head. In some parts of America this is a problem as the parents believe that this is un-American not to take risks and wearing a helmet. For this reason, education in sports safety and the consequences of not using good health and safety practices needs to be provided at the beginning of primary school to children, so that they do not have future health problems due to childhood sports injuries.

If environmental consideration are not assessed heat related illnesses and deaths during sporting activities can occur as children's bodies have a higher surface area ratio than adults; they have a lower perspiration rate and their metabolic rate is higher than adults at the same rate of activity so children produce more body heat when participating in sporting activities and loose this heat at a slower rate (*Marshall, 2010*). Another important aspect of risk assessment is the need for more complete physical exams of athletes before engaging in rigorous sports. An inordinate number of soccer field and football field deaths occur with youngsters and teens who have unknown,

underlying heart conditions. Many of these conditions can be identified with a more complete physical exam, but few school districts perform them.

A problem with some athletics is that they are proud of having sporting injuries and encourage the next generation to take the same risks as they took, in the name of sports' excitement. People have to value their health and safety, and that of their children before changes can be made. There is an old saying that a person cannot be helped until they understand that they need help, and that it takes a village community to raise an alcoholic. In other words, what society values is what will be enforced for people's acceptable behavior, so starting the young in learning good health and safety practices is very important.

Another example of pride interfering with good health and safety is the connection between repeated concussions during sports such as football and physical and mental health later in life. For example Lehman, Hein, Baron & Gersic (*2012*) conducted research to evaluate the incidences of neuro-degenerate deaths in a cohort of 3,439 ex USA National Football League players. This research identified that, due to recurrent mild traumatic brain injuries (concussions) the neurodegenerative mortality of this cohort was 3 times higher than for the general USA population. Many athletes feel the need to get back in the game after they have sustained a concussion. Concussion awareness training, proper fitting equipment, better medical treatment, longer recuperation time, and closer monitoring of illegal moves on the field can help minimize the lifelong, life changing problems of chronic pain and mental deficits (*Lehman, Hein, Baron & Gersic, 2012*). Thomas et al. (*2011*) evaluated the US National Registry of Sudden Deaths in Young Athletes (*1980-2009*) and identified that of the 1,827 deaths of people under 21 years old who died while participating in sports activities the largest number of deaths (148) occurred while the athlete was playing football.

> *"…what society values is what will be enforced for people's behavior, so starting the young in learning good health and safety practices is very important."*

Involving Everyone in the Organization in Workplace Safety and Health Management

Just as it is important for everyone in the community to be involved in good health and safety practices, it is important for everyone in a workplace to do this. In a workplace, the person with the most power to affect the work environment, work processes, equipment and products used and the actions of employees, is the employer or Chief Executive Officer (CEO). For this reason, to be effective, the Safety and Health Professional should attend social activities as well as work activities at which the CEO will be present, to keep up to date with what is happening in the consideration and implementation of good occupational safety and health practices.

Having good occupational safety, health and environmental management must be company values to promote a positive culture in the workplace in relation to these values. Priorities change, but values remain.

Often company CEOs think that they know all about safety in relation to their company, but they do not. Workplace health and safety advisors are usually needed to keep everyone in the company up to date with current occupational safety and health knowledge.

CEOs do not always know everything that occurs in their company. Often they only know what they are told by other company managers. For example when the Deepwater Horizon oil rig exploded with the loss of life of 9 platform workers and 2 engineers, 4 of the 6 BP employees who were on board this oil rig were there to congratulate senior Deepwater Horizon staff on having 7 years of operation without a single loss time injury (*Roach, Harris & Williamson, 2010; Deepwater Horizon Study Group, 2011*). The CEO of BP, Mr. Tony Hayward, thought that health and safety was well managed on the Deepwater Horizon, but unfortunately cost cutting measures of several million dollars that ignored safety concerns (Waxman, 2010) resulted in an explosion that produced an oil spill of 4.9 million barrels of crude oil that was released into the Gulf of Mexico producing an oil slick that covered 6,500 km^2 and polluted hundreds of kilometers of beaches, wetlands and estuaries on the Gulf of Mexico Coast (*Kostka et al, 2011; Rico-Martinez, Snell & Shearer, 2013*). Saving money by not ensuring safety had, by 2013, cost BP US$14 billion in clean-up costs, payments of US$11,003 million to the USA Federal and State Governments, to individuals and businesses and a fine of US$4 billion for the death of the 11 people killed in the Deepwater Horizon explosion (*Ramseur & Hagerty, 2013*). BP also had over 100,000 private claims made against it in relation the Deepwater Horizon explosion and resulting oil spill which in 2013 were being settled with a limit of US$2.3 billion for seafood compensation and the remainder of the claims being

Continued on Page 6

Continued from Page 5

expected to be settled for approximately US$7.8 billion (*Ramseur & Hagerty, 2013*). In part this is an example of the cost of the CEO not understanding the importance of workplace safety and promoting a culture of safety at BP.

To enable CEOs to have a better understanding of what is happening in their company it is also necessary to have employees who are doing the hands on work elect employees from their work group. Countries that have ratified the International Labour Organization (ILO) Convention ISS calls these elected employees Safety and Health Representatives. In all these workplaces, as well as having safety representatives, there is usually a workplace health and safety committee composed of an equal number of health and safety representatives and workplace managers who include the CEO. Through the information provided to, and provided by this committee, good occupational safety and health practices can become a normal part of work for everyone in the company.

It is very important to enable good workplace health and safety practices in the role of the supervision since the supervisor usually organizes employees' daily work, provides education on safety work practices, and observes employees' work to ensure the work is performed correctly. The pressure that comes from managers above the workplace Supervisor can affect the Supervisor's decisions. If the company values are production at all costs without considerations of employee health and safety, then this value can affect the Supervisor's decisions. If workplace health and safety as well as production is a value and the supervisor has this assessed as part of their performance management, then the supervisor is more likely to consider and implement best work practices.

The workplace health and safety advisor also has a role to play in letting the CEO, and other people who are business decision makers, know the cost of including safety and health work practices, and the cost of not having these, as businesses need to make a profit to remain financially viable. It is also important for companies to measure positive performance indicators, such as having good safety management plans and systems, as these show where the company is going with their occupational safety and health management and using positive performance indicators can decrease company insurance premiums, reduce worker's compensation costs and improve employee productivity. Log indicators, such as loss time injuries, show where the company has been with its safety management and can identify opportunities for improvement in the company's safety and health management.

Experienced workplace health and safety advisors have much knowledge to offer not only to the people in their workplace, but also to the next generation of health, safety and environmental management advisors. Organizations, including World Safety Organization, need to encourage their experienced workplace health and safety advisors to be the peer mentors for the next generation as much learning is achieved when working in industry as well as from classroom learning. Professional organizations need to have links to colleges and universities where workplace health, safety and environmental management is taught to provide these students with practical workplace experience and peer mentoring.

Some states in the USA require that asbestos building inspectors work under a mentor for one year after completing their inspector coursework. This is particularly useful since a three-day classroom experience is not sufficient to address all the issues that an asbestos inspector will encounter in the real world.

Workplace Environmental Management

Part of good workplace safety and health is environmental management. In the modern world, workers are exposed to hundreds if not thousands of potentially-hazardous chemicals every day. These chemicals come from the outdoor environment and indoor environments both at home and in the workplace. With recent efforts for Global Harmonization of chemical information in the occupational arena, it seems appropriate to also share information between countries on occupational exposure levels. For example, US OSHA has occupational exposure limits for about 600 chemicals, whereas globally, the various industrialized developed countries have occupational exposure limits for over 6,000 chemicals. This information includes occupational exposure limits for 8-hour industrial exposures as well as long-term exposure limits for indoor air quality. This is valuable information that safety and health professionals can use to better evaluate and control chemical exposures in all indoor environments.

The adoption of the Global Harmonization System for chemical hazard identification is a wonderful first step in standardizing chemical hazard information worldwide. Countries should be encouraged to share the wealth of their knowledge of workplace chemical and biological exposure standards so that all workers can benefit from the most comprehensive knowledge available on protection from chemical and biological exposures.

Reduction of Harmful Microbial Contamination in Work Places

Microbial contamination of the work environment is a relatively new concern in the area of worker health. This has taken on even more importance with the development generic engineering technologies that allow the mutation of both mold and bacterial species. It is important that the potential risks to worker health be both recognized as well

as managed by competent and adequately trained individuals. Training materials on this subject area are woefully lacking on a global basis. The UN should consider developing training materials that can be used by both developed and developing countries.

Indoor air quality can also be significantly affected by microbial contamination (*Jansz, 2011b*). Management decisions to reduce energy use can result in a serious reduction in outside air delivered to a building and consequential increases in the indoor microbial levels (*Jansz, 2011a*). Many new building today contain an indoor "green" area with numerous plant species. At the same time, these plants and the soil supporting their growth contain high levels of microbial species. When outside air is reduced in these building areas, the building essential operates as a green house, exposing office workers to "green-house" workers' health risks which are well documented in the literature. This presents a serious health risk, especially at night when many "energy efficient" building turn off ventilation systems. Subsequently, workers entering the building at the start of the workday can be exposed to unhealthy levels of mold, bacteria and endotoxins. Unfortunately, this indoor air quality health risk is not well recognized or even considered by building owners (*Jansz, 2011c*). This health risks in buildings with internal "green" areas need to be made a priority since this is an expanding area of new building design and construction.

An Environmental Workplace Management Recognition and Incentive Program

An example of best practice in environmental management comes from the State of Arizona Department of Transportation (ADOT) which, in 2008, implemented effective environmental workplace management recognition and incentive program called the "Environmental Green Shop Award Program." The goal was to "Go Green" at the 22 equipment repair shops located throughout the State of Arizona. This was accomplished and has evolved beyond what was originally anticipated.

The program started with a focus on the proven principles of Reuse, Reduce and Recycle. It quickly expanded to emphasize the conservation of energy, water, consumables and petroleum fuel, while at the same time reducing and minimizing source waste. ADOT's commitment to 'green initiatives' and 'zero waste' is part of the culture and is the mission of the Agency with core values aimed at improving environmental impact and sustainability in order to achieve a competitive value-added business advantage through sustainable business approaches. One of the results of this program was improved efficiencies resulting from a cleaner shop and structured work practices. As a result of this program the repair shops have realized savings on chemical purchases; disposal costs; regulatory monitoring, reporting and permit fees; water, electricity and sewer use charges. The success of the Green Shop Program comes from the basic principles of ownership and accountability.

Ownership

The Environmental Green Shop Award Program was initiated to help reduce waste and improve sustainability based on the simple fact that the equipment repair shops, their workers and the environment would all benefit. The Program provided an opportunity to apply best management practices to equipment repair shop operations and thus reduce the cost, carbon footprint and energy consumption of the workplace infrastructure state wide. At the core of the program was the Best Management Practice Manual (BMP Manual). The BMP Manual was written to provide documented guidance in order to reduce pollution, improve and enhance operational capabilities in an environmentally sensitive manner. Most regulations document what has to be done to be in compliance; but they don't explain how to do it. That's where 'best management practice' comes into play on the shop floor. BMPs are proven guidelines and methods that help companies and their employees become compliant and remain compliant.

Most of the efforts to make the repair shops 'green' came from implementing best management practices in the equipment repair shops. The manual was made readily accessible to all technicians on the shop floor and was included on all company desktop computers. It provides guidelines and procedures for employees to follow. From its inception the Program has empowered employees to go 'above and beyond' to make a meaningful difference by engaging workers as 'Green Shop Teams' to implement and

Continued on Page 8

Congratulations to the WSO Qatar Chapter for the launch of their new website!

Check it out!
www.worldsafetyqatar.org

Continued from Page 7

improve environmental sustainability, which is both good for business and the planet. Each year the best new ideas, from the shops are incorporated into the Best Management Practice Manual making the program not only a living document but one that is created from employee innovations discovered in the field.

Self-audit checklists are used for various types of tasks and repair shop procedures to ensure shops followed the BMPs, complied with regulations, protect the health of employees and the quality of the environment. The self-audit checklist was required in order to certify a shop green, bridge the gap between the goal and the reality of environmental accountability as well as attest to the successful efforts of the shop supervisor. Each shop completed a self-audit inspection using the checklist twice a year and submitted it to the Environment Engineering Manager for review. The Self-audit checklist was used to review shop activities in order to identify and select best practice for those activities with the potential to cause spills or releases of pollutants like oil, grease and/or fuel, to identify inlet and discharge points and to identify any illegal connections. The Checklist was not used for a 'gotcha,' but as a tool to help identify some of the things that might be done in a better manner.

The Self-audit checklist is divided into four parts:

1. Environmental Compliance. Ensures environmental compliance at the shops.
2. Quest for a Green Shop. Identifies shop practices that impact environmental sustainability, moves the repair shops beyond compliance and towards a more 'green' environmental footprint.
3. Action Plan. Creates a plan of action for everyone to continue to move each repair shop towards a more 'green' workplace.
4. Personal Effects of Going Green. Identifies the personal program benefits.

Accountability and Rewards

Unannounced audits are performed annually. These audits provide a method of extensive data collection, reviews, validation, documentation, communication and reporting. Checklists are scored and equipment shops must obtain a minimum score for compliance certification. A scoring metric was developed and is used to evaluate and rate the quality of implementation of BMPs in the equipment repair shops. This numerical rating system indicates overall implementation of BMPs including consistency of the Self-Audit Checklist with an actual onsite evaluation. Green Shop Award recipients are chosen based on their score after reviewing their second Checklist and unannounced site inspection. The shop with the highest score is the winner. Winning shops receive a Green Shop Flag for the shop front, a Green Shop Banner to hang inside their shop, a handsome award plaque, a Star Performer Award and Green Shop embroidered uniform patches for all shop personnel. The winning shop team gets a day off work with pay. The ceremony includes the State of Arizona Department of Transportation Director presenting awards and words of gratitude to the winning team members.

Winning shops are also judged on the following:

- Environmentally friendly new procedures or systems developed;
- Implementation of a variety of best practice measures to reduce the amount of chemicals stored;
- Effectiveness and safety of hazardous materials management, waste management and hazardous materials storage;
- The hazards of the chemicals used. (Is the least toxic chemical fit for the purpose used?);
- Amount of hazardous waste generated while minimizing the employee exposure and lessening environmental impact;
- Number of reported spills or releases within the past year;
- Use of environmental friendly equipment and new procedures or new systems developed;
- Level of compliance with all environmental regulations (no Notice of Violations or fines by regulatory agencies);
- Personal housekeeping;
- Overall shop cleanliness;
- Contributions made to advance environmental leadership;
- Maintenance and improvement of environment programs at the shop;
- Timely submittals of the shop Self-Audit Checklists;
- Consistency of checklist findings with unannounced onsite evaluations;
- Commitment to continue complying with pertinent regulations and implementing the measures chosen from the Checklist;
- BMPs manual requirements implemented and manuals maintained in good condition;
- Implemented measures contribution to sustainability;
- Commitment to continue demonstrated initiatives (reporting a problems, prompt clean-up);
- Other achievements related to shop work practices made to improve environmental management and sustainability.

The green initiatives that Shops have put into practice have significantly reduced the amount of waste generated and has sometime eliminated waste production. This can be attributed to the process of recycling thousands of used tires, lead-acid batteries and filters along with tons of

scrap metal and thousands of gallons of motor oils and other fluids. There are recycling bins in all shops and at fuel islands to recycle paper, cardboard, plastics, and aluminum cans. Shops have implemented additional green measures to conserve water and improve energy efficiency.

The Environmental Green Shop Award Program has supported each shop in exceeding national environmental compliance standards and encourages each shop to move beyond compliance in their own way. The Program continues to encourage a long-lasting, sustainable commitment to protecting public health and improving and preserving Arizona's beautiful natural surroundings. The Program sends a clear message about the importance of being environmental stewards and strives each day to make a positive impact to the environment, customers and to the citizens of Arizona. The State of Arizona Department of Transportation actions and policies make a difference! More information about this program can be obtained from Mr. Robert V. Trapani, CET, CIT, WSO-CSS/CHME, Environmental Engineering Specialist, phone (602) 712-6177 or email: rtrapani@azdot.gov or contact at the Arizona Department of Transportation, 2225 S. 22nd Ave., Phoenix, Arizona, 85009 USA.

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Help Us Stay Up-to-Date!

In order to keep our records as current as possible, we need every WSO Member to return the **Membership Database Update Form** that is mailed to you with your yearly renewal invoice. Please submit this form even if everything is current and there are no changes. For our Certified Members: You will receive a **Re-Certification Form** along with your invoice when you are due for re-certification (every three years).

The following "Thinking Points" may prove helpful in calculating your points:

- **Section 1 –** Credit is given for each year you have been working in the safety field for the last three years. *(section max = 6)*
- **Section 2 –** Credit is given for any Professional Organization you belong to – don't forget the WSO! *(section max = 4)*
- **Section 3 –** Have you served on a Technical Committee or held an office in any of the Professional Organizations to which you belong? *(section max = 4)*
- **Section 4 –** Have you written and published any letters, articles, training programs, etc. within the last three years? Have you made any professional presentations–such as a work safety training? *(section max = 3)*
- **Section 5 –** Have you attended any conferences, work-sponsored training, etc, and received related CEUs within the last three years? *(no limit)*
- **Section 6 –** Have you taken any Continuing Education Courses (with or without CEUs), or work-related training (without CEUs) within the last three years? *(section max = 3)*
- **Section 7 –** Have you pursued any additional college credit (with a grade of B or better) within the last three years? *(section max = 10)*
- **Section 8 –** Have you received an academic degree from an accredited college within the last three years? *(section max = 15)*

Upon receipt with your yearly renewal notice, please complete these forms at your earliest convenience and return them to the WSO World Management Center via mail, fax, or e-mail.

Comparison of Post-Remediation Verification Criteria

From the Major International Microbial Remediation Guidelines

By **Gail M. Brandys**, MS, CSP (retired), President, OEHCS, Inc., Hinsdale, Illinois

Testing the cleanliness of an occupied environment after a mold or bacteria remediation project is often prudent and generally required by insurance companies. This is referred to as Post-Remediation Verification or PRV. Various PRV criteria can be found in ten major US and international guidelines available to the microbial remediation industry. These include:

- IICRC S500
- IICRC S520
- EPA
- AIHA
- ACGIH
- NADCA
- New York City
- OSHA
- Texas Department of Health
- ISIAQ

The paper will summarize what each guideline says about the requirements for:

- Post-Remediation Verification
- Correction of the water source
- The use of containments
- Inspection of the work in progress
- Mold odor abatement
- The use of biocides
- Visual inspection
- Air and surface sampling and
- Considerations given to high-risk occupants

This overview should provide the building owner, remediation contractor, and the PRV tester an interesting perspective on the recommended practices professed in the various available guidelines on these important issues. Each of these issues is discussed individually below.

Post-Remediation Verification

PRV is recommended when there is a chance that microbial growth might still remain in the remediated area. This can include areas where there are porous materials that remain in the area such as wood building members or if interstitial spaces undisturbed by the remediation still remain. Also, if the water intrusion was a long-term situation or if occupants are sensitive to molds, PRV is recommended.

Correction of the Water Source

No microbial remediation project is complete without correction of the water source and bringing building materials back to a normal moisture content. If the water source is not eliminated, the newly-installed replacement materials can be impacted and need to be remediated in the future.

The Use of Containments

Containments are generally recommended to prohibit spreading of microbial contamination from the work area. Most guidelines use square footage of contamination to determine the need for containment.

Inspection of the Work in Progress

It is best if the PRV tester has knowledge of the remediation from its inception and can observe the remediation work as it progresses. This is especially important in critical environments such as hospitals and nursing homes.

Mold Odor Abatement

Microbial contamination is often accompanied by a musty odor in the air or on porous materials that is indicative of active mold growth. These chemicals from mold metabolism can result in adverse symptomatology in building occupants. Elimination of moldy odors is vital to a successful remediation project.

The Use of Biocides

Some guidelines discuss the use of biocides to inactivate viable mold in a structure. Other guidelines warn about the potential adverse effects of residual biocides on building occupants.

In lieu of using biocides these latter guidelines stress the importance of removal of all contaminated materials, adequate cleaning of the affected area and moisture control.

Visual Inspection

No PRV is complete without a visual inspection of the work area to determine if it is visually clean and that all visibly microbial-contaminated materials have been removed.

Air and Surface Sampling

IF visual PRV is not deemed sufficient to assess cleanliness assurance, air and/or surface sampling may be warranted. A sufficient number of samples must be collected and compared to outdoor areas, unaffected areas of the building and/or international guidelines on mold exposure.

Considerations Given to High-risk Occupants

PRV for areas that will be occupied by immuno-compromised individuals should be properly assessed to determine if it is acceptable for this demographic. This may require both air and surface sampling of the area after remediation and after build-back of the occupied spaces.

This review was used to produce a comprehensive guidance document on PRV titled "Post-Remediation Testing and Verification for Mold and Bacteria – Risk-Based Levels of Cleanliness Assurance, 4th Edition, 2011, Brandys and Brandys

Current Employment Opportunities

Paul Shrenker Associates, Inc.

Safety, Health and Environmental Job Openings as of January 2014

www.psassociatesinc.com | paul@psassociatesinc.com | telephone 413-267-4271 | fax 413-267-4287

Finder's fees paid for candidate referrals on all positions; contact for info.

Director HSE – NY Metropolitan Area

Company: Our client is a privately held food company that's been in business for 65+ years and growing. The company has three plants – two in the Southeast and corporate/plant in the NY area, totaling approximately 450 employees.

***Job Description**: To provide advice, guidance, and support to all personnel including Directors, Managers, Supervisors and engineers at all levels on all matters relating to Safety, Health and Environment in the workplace. To implement the strategy for Safety, Health and Environmental compliance in all locations in the region. To set realistic objectives, goals and targets while enrolling all personnel into the process. Maintain a culture that allows all individuals and teams to provide positive input into Safety, Health and Environment in their workplace. To develop and maintain excellent communications with all levels of staff providing advice, guidance, support and management assistance in a timely and quality manner. Engage in active personal development while assisting project resources in their individual development. Communicating effectively with external colleagues (Health & Safety and Environment Authorities, Local National and International Authorities, Clients representatives, Contractors etc ensuring a coordinated and compliant approach to Safety, Health and Environmental management. Monitors policies, procedures, programs, standards, and design criteria affecting construction safety on multiple projects. Demonstrate a professional integrity and personal pride in producing excellent results. Interact freely and effectively with all people, both internal and external to the company. Working as a team player generating a professional and productive atmosphere. This person will be charged with developing and SHE group across the company which would include identifying personnel needs. The position reports to Legal Counsel and a strong dotted line from the Director of Security and Safety.*

***Qualifications**: BS degree, 10+ years manufacturing EHS experience including some in NJ with experience working with regulators. For the first year there will be some travel to the 2 plants in the Southeast probably not exceeding 25%.*

Senior Safety Supervisor – Winston-Salem, NC, Area

Company: Our client has more than 1,300 locations worldwide and 170,000 employees. They create quality products, services and solutions to optimize energy and operational efficiencies of buildings; lead-acid automotive batteries and advanced batteries for hybrid and electric vehicles; and interior systems for automobiles. This plant in NC has approximately 350 employees

***Job Description**: Develops and administers effective occupational health, safety, ergonomics and industrial hygiene programs, including health services functions and maintenance of related policy and procedure manuals; educates, motivates and trains line supervision and production personnel in good housekeeping practices, safe work procedures, PPE, etc.; using specialized equipment, samples, measures and evaluates employee exposures to in-plant chemical contaminants, including lead and acid mist; and physical agents such as heat and noise exposure. Administers the audiometric testing and hearing conservation programs. Monitors, analyzes and records performance of the plant exhaust and make-up air ventilation systems; assist Occupational Health Nurse (OHN) in administration of medical surveillance and biological monitoring programs according to OSHA standards and company policies and procedures; manages the plant personal protective equipment, work clothing and safety equipment programs according to company standards and operating budget. Administers the respiratory protection program, including quantitative fit testing, respirator distribution, cleaning and sanitizing; assists OHN in administration of the workers' compensation program, including effective medical case management, reporting, record maintenance and follow-up.*

***Qualifications**: BS degree in Health Sciences, Industrial Hygiene, Safety or related field; minimum four years experience in a manufacturing environment with a minimum of 2 years experience in a supervisory/management role; previous experience leading industrial health programs; experience with administering a hazardous communication program, including managing and leading an emergency response team.*

Senior Safety Specialist – Memphis, TN, Area

Company: Our client is the world's foremost supplier of airborne expendable IR decoy flares, and serves as the sole-source IR decoy flare supplier for some of the worlds most sophisticated and advanced airborne platforms. Their automated facilities produce pressed, extruded, and cast IR flares at a rate that far out performs any other manufacturer.

***Job Description**: Essential duties and responsibilities include the following: Develops written OSHA and other regulatory compliance programs, provides training, and conducts audits of programs. Conducts additional training on various OSHA and other regulatory mandated programs. Conducts and documents technical evaluations, assists supervision and management with illness and injury prevention, risk assessment and mitigation, incident investigations, hazardous materials communication and awareness.*

***Qualifications**: 4+ years of safety experience in a manufacturing environment. College degree preferred but not required.*

Health and Safety Compliance Specialist – NJ/Philly Area

Company: Our client is a 200 year old international specialty chemicals company

***Job Description**: The Health & Safety Compliance Specialist is responsible for providing expertise and systems management for product regulatory compliance including hazard classification, hazard communication, chemical registration, and related chemical control regime legislation (so as to achieve legal compliance when producing and supplying chemical products). Supplementary role is to manage Business Unit product stewardship systems including guidance of new product development, and product-related responsible care.*

***Qualifications**: Bachelor of Science Degree in Bioscience/Chemistry or equivalent. Minimum of 3 to 5 years of experience in chemical hazard evaluation and regulatory compliance including GHS, TSCA. Must have a solid understanding of the following: USEPA TSCA Regulations, Hazardous Materials (HM181),OSHA GHS, and EU REACH/CLP Requirements. Experience with product stewardship management systems is preferred. Must be experienced in toxicological assessments of industrial chemicals. Must have excellent Project Management skills and must be able to effectively communicate at all levels of the organization.*

2014 WSO Symposium Call for Papers

Please submit an abstract of the paper you wish to present. All abstracts submitted will be reviewed and authors will be notified if the paper has been accepted. Deadline for abstract submission is March 31, 2014. Upon notification of the acceptance of your paper, the completed paper must be submitted prior to May 15, 2014, for publication in the "Conference Proceedings." Please include a brief bio. Abstract should be limited to 200 words or less; bio should be limited to 100 words or less. You may make your submission to **WSO World Management Center, PO Box 518, Warrensburg, MO 64093, USA**, or you may e-mail it to **info@worldsafety.org**.

Request for Manuscripts and Articles for News-Letters and Journals

Currently, we are requesting submissions of manuscripts and articles for WSO News-Letters and World Safety Journal. Contributions in English are always welcome and should be sent via e-mail to **editorialstaff@worldsafety.org**.

Or by mail to the **WSO World Management Center** located at: **PO Box 518, Warrensburg, MO 64093 USA.**

For the World Safety Journal, only articles with original material are accepted for consideration with the understanding that, except for abstracts, no part of the data has been published, or will be submitted for publication elsewhere before appearing in the World Safety Journal. Authors are required to assign copyright to WSO WORLD MANAGEMENT CENTER when their article is accepted for publication.

Instructions for Contributors

- Articles should be less than 2000 words and carry an abstract of no more than 150 words, stating the key points of the material. Supply brief details of author's professional qualifications, current position and employer.
- Short communications are short reports without headings, contacting less than 1000 words. Photographs or diagrams may be included.
- Letters should not exceed 300 words.
- Conferences/seminars/courses: Details supplied for publication should include date, time, location, subject, content, and contact person(s).

T*he WSO's Purpose is to internationalize all safety fields including occupational and environmental safety and health, accident prevention movement, etc.: and to disseminate throughout the world the practices, skills, arts and technologies of safety and accident prevention.*

W*SO's objective is to protect people, property, resources and the environment on local, regional, national and international levels. WSO membership 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.*

W*SO is in Consultative Status Category II Status (Non-Governmental Organization-NGO) to Economic and Social Council of the United Nations.*

The WSO is a Not-For-Profit Corporation (Missouri, USA), non-sectarian, non-political movement dedicated to

"Making Safety a Way of Life …Worldwide."