Vol: 03

Tomorrow is Your
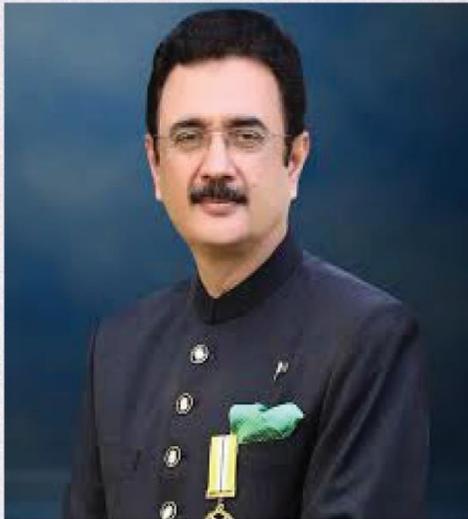
Reward for working

Safe Today

College of Earth and Environmental Sciences
University of the Punjab, Lahore.

Prof. Dr. Muhammad Ali
Vice-chancellor
University of the Punjab

"I am very pleased with the efforts of the College of Earth and Environmental Sciences, University of the Punjab in launching the M. Phil degree program in Occupational Health and Safety, first in Pakistan, at University of the Punjab.

The publication of "OHS Newsletter" by CEES OHS students is a positive contribution to the society to highlight the crucial OHS issues such as, occupational diseases, ergonomic hazards and worker's injuries in the industrial and government sector. This effort will create awareness among workers and the community about such issues.

No one can deny the fact that workers injuries and occupational diseases in various industrial sectors are taking heavy toll, not only of workers but also of their families, as well as industrial productivity. The industrial growth is also causing the worst effect on humans and environment in the adjacent areas of various industries due to dumping of their waste products directly in to environment, which is directly affecting health of people and degradation of local environment. This effort of CEES will highlight health and safety issues and environmental health effects and will create awareness and suggest possible remedies to address them. In addition, the CEES faculty and students will be involved in research and training in partnership with various stake holders to create awareness for the protection of workers and environment."

Prof. Dr. Irfan Ahmed Shaikh
Principal CEES
University of the Punjab

"I am very pleased with the efforts of the Occupational Health and Safety faculty and students at the College of Earth and Environmental Sciences, University of the Punjab in continue to publish "OHS Newsletter" since 2020 to highlight the important issues faced by workers and public such as, heat related sickness and preventive measures, occupational health and safety problems faced by welders, and proper use of personal protective equipment during various tasks. This will create awareness among workers and public at large about such issues faced by them during daily life.

Recently, the Punjab government has taken initiative on this front by passing the Occupational Safety and Health Act 2019, which covers all those areas which were neglected in the British era OSH Act of 1934.To realize the need for well-educated and trained occupational health and safety professionals, CEES has launched a two year M. Phil degree in Occupational Health and Safety, first in the nation, to produce well educated technical professionals in this discipline for the public and private sector as well as to create a liaison between academia and industry and to highlight the importance of such issues and suggest possible remedies to address them."

OCCUPATIONAL HEALTH AND SAFETY PROGRAM
COLLEGE OF EARTH AND ENVIRONMENTAL SCIENCES

Dr. Muhammad Akram   **Dr. Azhar Ali**

Occupational safety and health (OSH), commonly called health, safety, and environment (HSE) or workplace health and safety (WHS), is a multidisciplinary program concerned with the safety, health, and welfare of people at work and beyond. People trained in this discipline are qualified in evaluating, identifying, and controlling chemical, biological, and physical hazards, which affect health, safety, and productivity of workforce. The College of Earth and Environmental Sciences (CEES), University of the Punjab, has initiated such a multidisciplinary program suitable for people with different educational background and experience. Various programs offered at CEES are:

M. PHIL IN OHS:

It is a multidisciplinary two-year degree program incorporates many areas of health, safety and environment, such as industrial hygiene, occupational health and safety, ergonomics, fire safety and emergency preparedness, noise and hearing conservation, hazardous waste management, construction, oil & gas, etc. It is intended to prepare students in many aspects of HSE to serve in the public and private sector. The program will operate within an international OHS framework of education and research.

POST GRADUATE DIPLOMA (PGD) IN OHS:

This one-year program will provide in depth knowledge to prepare students to become competent and demonstrate skillfulness in various occupational health and safety disciplines, such as health, safety and environment, industrial hygiene and safety management, chemical hazards, fire safety and emergency preparedness, regulations, noise and hearing conservation, personal protection equipment (PPE), etc. This will provide essential, broad-based education in HSE to prepare academically sound graduates for entry-level and advanced positions in the HSE profession.

CERTIFICATE IN OHS AS SAFETY PRACTIONER:

The Certificate in OHS will provide basic knowledge in various health and safety areas to pre-pare students who are either employees in small scale public or private enterprises or want to add on responsibilities in HSE at their work site. The program consists of four Modules, one month each, which can be taken individually or completed in 4 months, covering areas described under PGD. The classes will be held mostly in evenings or weekends to accommodate people working during the day.

CONTINUING EDUCATION COURSES IN OHS:

To facilitate learning in occupational health, safety and environment discipline for people who have HSE education or work in this discipline but wants to enhance their knowledge in a certain specific area, such as confined space entry & permit requirements, electrical safety, lock-out/tag-out, respiratory protection, food safety, ladder safety, welding safety, housekeeping, chemical safety, biosafety, waste management, First Aid & CPR, fire safety, ergonomics, regulatory compliance and standards, etc.

Working on telecommunication towers in Pakistan exposes workers to various hazards, especially ergonomic hazards. These include repetitive motions, pressure on soft tissues, manual lifting, prolonged periods in constrained postures at considerable heights, and exposure to extreme weather conditions. However, ergonomics is not the sole risk factor; there is also the hazard of falls from heights, oxidation, and rust on metal structures due to weather, and biological threats like vegetation, plants, beehives, reptiles, and insects inhabiting these towers. Additionally, birds, especially eagles nesting at the tower tops, pose risks, and there have been reported cases of current leakage issues.

Telecom tower work involves demanding tasks such as climbing towers ranging from 50 to 80 feet, carrying heavy loads to the top, and prolonged hours spent completing tasks at heights. Despite approximately 37,000 towers serving around 190 million subscribers, this sector remains significantly overlooked in terms of the multitude of occupational hazards it poses to workers, particularly riggers, technicians, inspectors, helpers, and erectors.

I feel privileged to have worked in the Telecom sector for a few years as a Health and Safety Specialist, where I observed a lot of health and safety inadequacies, especially in the context of work on telecommunication towers. Various roles within tower work exist, each with specific responsibilities. Tower riggers manage both groundwork and climbing tasks, dealing with equipment handling, tower assembly, setting up pulley systems for manual lifts, and carrying heavy loads to significant heights. Tower technicians are involved in the pre-assembly of ground equipment and perform technical fixes at designated heights according to design specifications. Tower inspectors are responsible for scrutinizing tower structures, while tower erectors are tasked with the construction of towers.

Unsafe practices and poor ergonomic conditions during tower work play a significant role in causing a range of musculoskeletal injuries. These hazards predominantly affect various body parts, including the lower limbs, back, and upper limbs, making workers susceptible to a spectrum of work-related musculoskeletal disorders (WRMSDs). These conditions encompass

Figure 1: Rigger is climbing the tower

ailments like Work-Related Upper Limb Disorders (WRULDS), Carpal Tunnel Syndrome (CTS), tendonitis, ligament sprains, degenerative disc diseases, and herniated discs, among others. The implications of these disorders can be profound, often resulting in persistent pain, discomfort, reduced mobility, and, in severe cases, even numbness or tingling sensations.

For instance, WRULDS can manifest as pain, stiffness, or swelling in the joints, affecting the hands, wrists, elbows, or shoulders due to repetitive movements or sustained awkward postures. CTS, a nerve-related condition, causes numbness, tingling, or weakness in the hand due to pressure on the median nerve in the wrist, often aggravated by repetitive hand and wrist movements. Additionally, tendonitis, characterized by inflammation or irritation of tendons, commonly occurs in the shoulders, elbows, wrists, or knees among tower workers engaged in repetitive tasks. Ligament sprains, resulting from sudden twisting or overextension, can lead to acute pain and limited mobility, affecting various joints due to the physically demanding nature of tower work.

Moreover, degenerative disc diseases and herniated discs are prevalent among tower workers due to prolonged periods of maintaining awkward postures, heavy lifting, and repetitive

Ergonomics Challenges for Telecommunication Tower Laborers in Pakistan

Figure 2: Telecom Tower Construction in progress

motions, causing wear and tear on the spinal discs. These conditions can lead to chronic back pain, nerve compression, and even radiating pain or numbness along the limbs, significantly impacting the worker's ability to perform tasks efficiently and comfortably.

The cumulative effect of these musculoskeletal disorders not only impairs the physical well-being of the workers but also affects their productivity and quality of work. It underscores the critical importance of implementing robust ergonomic practices, regular breaks, proper training, and access to ergonomic equipment to minimize the risk of these debilitating conditions among tower workers.

It is noted that the age group eighteen to thirty-five encompasses the majority of workers in the telecom tower industry, but retention rates decline significantly beyond this age group. This decline might be attributed to prevalent chronic health issues, notably back and muscle pains stemming from the substandard ergonomic conditions prevalent in this line of work. It is possible that some workers within this demographic might not strictly adhere to health and safety guidelines, potentially bypassing safe work practices to complete their tasks. This could be due to a combination of factors, including the urgency of meeting work demands, inadequate training, or a lack of awareness regarding the long-term consequences of disregarding safety protocols. The physical toll of the job, coupled with inadequate ergonomic support and noncompliance with safety measures, may lead to more health issues among workers outside the 35-year-old bracket, resulting in reduced retention rates within this age group.

A lack of awareness among workers regarding ergonomic hazards and compromised working conditions at tower summits is observed. Workers taking prescribed drugs or who are smokers often experience fatigue shortly after ascending the tower, while those over thirty frequently report back pain issues. There is a possibility that tower workers do not report their health consequences due to fear of losing their jobs, but continuous work with poor health can cause permanent damage to their bodies.

Telecommunication employers must prioritize training and awareness programs focused on ergonomic hazards and conduct medical fitness assessments for the tower workers. Engaging in cross-verification, internal surveys, and regular inspections are pivotal steps to mitigate inherent hazards in this line of work, emphasizing the urgent need for action to ensure worker safety and well-being.

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Professionals in occupational health and safety (OHS) are frequently faced with intricate exposure scenarios combining industrial and environmental chemicals. From solvents and heavy metals to pesticides and plasticizers, workplace exposures often involve substances whose health impacts are supported by fragmented or inconsistent research evidence. Translating such diverse findings into clear, evidence-based risk conclusions remains a persistent challenge in occupational health practice and academia.

The **Targeted Risk Assessment of Environmental Chemicals (TRAEC)** approach is a noteworthy methodological development in this regard. TRAEC is a systematic, quantitative, and evidence-weighted methodology for assessing the health hazards of certain environmental chemicals. It was created by the Key Laboratory of Modern Toxicology of the Ministry of Education, School of Public Health, Nanjing Medical University, Jiangsu, China.

TRAEC provides a cutting-edge method that unifies risk management, toxicology, and epidemiology into a single integrated system for practitioners, researchers, and students studying occupational health and safety.

The Need for Structured Risk Assessment in OHS:

Occupational environments expose workers to chemical agents through inhalation, dermal contact, and ingestion. Traditional risk assessment models often rely on:
• Hazard identification from regulatory agencies
•Individual epidemiological studies
• Toxicological animal data
• Occupational exposure limits (OELs)

Despite their importance, these sources don't always offer a cohesive or clear assessment of all the available data. OHS practitioners may find it challenging to ascertain the actual level of risk due to conflicting study results, disparities in exposure concentrations, and inconsistencies in study methodology.

TRAEC addresses this challenge by offering a standardized, stepwise process that integrates multiple lines of evidence into a single comprehensive score.

Core Structure of the TRAEC Framework

The TRAEC strategy operates through three fundamental steps:
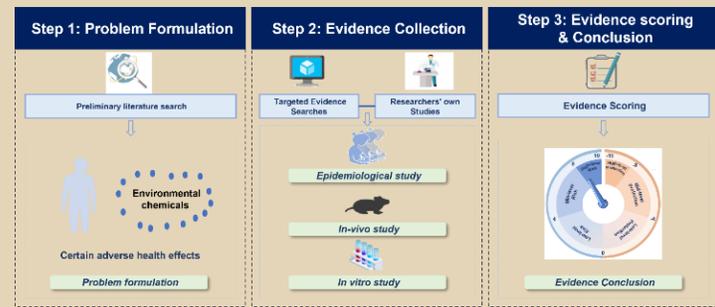
1. Problem Formulation

First, a particular chemical and a well-defined health outcome are defined. An OHS research team may, for instance, assess how exposure to pesticides affects neurobehavioral outcomes or how exposure to benzene affects hematological problems, etc. Clarity and relevancy are guaranteed by this focused approach.

2. Evidence Collection

TRAEC requires a systematic collection of evidence from three scientific domains: (A) Epidemiological studies (human data), (B) In vivo studies (animal models), and (C) In vitro studies (cellular and mechanistic data)

In contrast to many traditional methods, TRAEC promotes the incorporation of unique, unpublished field or laboratory data generated by researchers. In occupational situations where local exposure studies may not yet be widely reported, this capability is very helpful.

3. Evidence Scoring and Conclusion

The defining feature of TRAEC lies in its quantitative scoring system. Each piece of evidence is evaluated using four core dimensions:
• Reliability Score (ω) – Assessing study design quality
• Weight of Concentration (ε) – Adjusting for exposure dose levels
• Risk Intensity (φ) – Measuring strength of observed effects
• Correlation Score (r) – Determining direction of associationBy combining these elements numerically, a Comprehensive Evidence Score is produced, which classifies outcomes as low, medium, or high risk (or protection). In occupational health situations, this numerical openness enhances the results' scientific defensibility.

Technical Relevance for Occupational Health Practice

TRAEC's solid methodological base makes it especially pertinent for occupational health and safety experts. By using a logarithmic reciprocal

weighting approach to account for large differences in occupational exposure concentrations, it keeps high-dose data from unduly impacting conclusions. By converting metrics like beta coefficients, odds ratios (OR), relative risks (RR), and hazard ratios (HR) into standardized effect sizes, TRAEC facilitates meaningful comparisons between study designs in epidemiological research. In accordance with the principles of evidence-based occupational medicine, each study is methodically assessed using predetermined reliability criteria that include exposure assessment, statistical techniques, and bias control. TRAEC also promotes ethical toxicological methods by minimizing unnecessary repetition of animal testing through its emphasis on systematic evaluation and integration of available data.

Applications in Occupational Health and Safety Education

For students studying occupational health and safety (OHS), TRAEC is a structured learning framework that enhances methodological rigor and critical thinking while also acting as a research tool. Students gain knowledge of how to conduct systematic literature searches, define inclusion and exclusion criteria, evaluate bias, translate epidemiological measures into standardized effect sizes, and interpret quantitative risk findings, skills that are directly related to industrial hygiene practices and occupational risk assessment. Through collaborative assessment and scoring processes, TRAEC fosters teamwork and quality control, making it an excellent choice for Master's and doctoral research projects.

Implications for Workplace Risk Management

Decisions in modern occupational health must be supported by clear, repeatable evidence. By classifying risks into distinct ranges, TRAEC's score criteria support:

• Evidence-based hazard communication
• Informed decision-making regarding control measures
• Prioritization of chemical risk management strategies
• Development of occupational health guidelinesTRAEC allows for the systematic comparison of many compounds that contribute to comparable health consequences in settings where exposure combinations are widespread, such as chemical processing, textile manufacture, agriculture, and medicines.

Alignment with International Risk Assessment Standards

TRAEC builds upon internationally recognized methodologies used by the US Environmental Protection Agency, National Toxicology Program, and European Commission Joint Research Centre, while advancing them through the integration of exposure weighting, effect intensity, correlation direction, and reliability evaluation into a unified scoring model accessible to academic research teams. By combining scientific rigor with practical applicability, TRAEC offers a sophisticated yet feasible risk assessment approach, particularly suitable for developing countries seeking structured and transparent evaluation tools.

A Methodological Advancement for Occupational Health Research

Occupational health practitioners need to adjust to similarly advanced analytical techniques when industries change and chemical output grows. A modern, quantitative, and integrative method of assessing chemical risk, TRAEC is in line with ethical research norms, multidisciplinary cooperation, and evidence-based practice.

Comprehending and utilizing organized frameworks such as TRAEC enhances the ability of occupational health and safety practitioners and students to analyze intricate toxicological data and convert it into significant workplace safeguards.

Modern methodological tools like TRAEC help provide a more methodical, transparent, and scientifically based future for occupational health and safety at a time when chemical exposures are unavoidable, yet preventable harm must be avoided.

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Every day, countless individuals work in environments that put their health and safety at risk. Some of these risks are obvious, such as working with dangerous machinery, chemicals, or heights. Others are less visible, such as exposure to infectious diseases, stress, or harassment. No matter what the risk is, workers have the right to refuse unsafe work and should not risk their lives for their jobs.

The right to refuse unsafe work is a legal right that protects workers from being forced to perform work that poses a serious and immediate danger to their health or safety. This right is recognized by various laws and regulations, such as the Occupational Safety and Health Act (OSHA) in the United States, the Health and Safety at Work Act (HSWA) in the United Kingdom, and the Canada Labour Code (CLC) in Canada.

Factors to consider before refusing work

- Is the risk immediate?
- It's not just about feeling nervous. Is there a specific, identifiable threat?
- Can I point to the exact thing that will hurt me?
- Would my coworkers agree this is dangerous?
- Did the supervisor offer a solution that you believe is insufficient?
- Have you pointed the hazard out to your supervisor?
- Do you have the necessary gear?
- Am I willing to do other safe work instead?

In addition to these factors, it is also important to remember that you have the right to refuse unsafe work without fear of retaliation. If you are facing retaliation for refusing unsafe work, you should contact your state's labor department or an employment attorney.

Here are some additional tips for refusing unsafe work:

- Be respectful and professional when communicating your concerns.
- attacks or accusations.
- Offer alternative solutions, if possible.

Be prepared to document your concerns in writing.

Role of a safety professional when a worker refuses to do unsafe work?

As a safety professional, you have a responsibility to ensure that the work environment is safe and healthy for all workers. You also have a duty to respect the workers' right to refuse to do unsafe work, as stated in the Occupational Health and Safety Act. But what should you do when a worker exercises this right? Here are some steps you can follow:

1. **Investigate the situation:** Talk to the worker who refused to do the work and find out why they believe it is unsafe. Ask them to show you the hazard or explain the risk. Listen to their concerns and try to understand their perspective.
2. **Assess the risk:** Based on the information you gathered from the worker, evaluate the level of risk involved in doing the work. Consider the likelihood and severity of potential harm, as well as the legal and ethical implications of ignoring or addressing the issue.
3. **Take action:** If you agree that the work is unsafe, you should take immediate steps to eliminate or control the hazard. This may involve stopping the work, providing personal protective

equipment, implementing engineering or administrative controls, or seeking expert advice. You should also inform the employer and other relevant parties of the situation and your actions.

4. **Document everything:** You should keep a record of the worker's refusal to do unsafe work, your investigation, your risk assessment, and your actions. This will help you in case of any disputes, complaints, or legal actions. It will also help you monitor and review the effectiveness of your interventions.

5. **Follow up:** You should check with the worker who refused to do unsafe work and make sure they are satisfied with the outcome. You should also provide them with any necessary training, information, or support to help them perform their work safely and confidently

Benefits of Refusing Unsafe Work:
- Prevent injuries & illnesses for yourself and others.
- Save lives and avoid fatalities.
- Improve your work environment and morale
- Improved safety standards and practices
- Increased awareness of workplace safety hazards
- Empowerment of workers to advocate for their well-being
- Encourage your employer to comply with health and safety standards

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2. https://safetypedia.com/safety/right-to-refuse-unsafe-work/
3. https://www.osha.gov/workers/right-to-refuse

Legal Protections against Retaliation
• Contact your union representative or health and safety committee if you have one.
• File a complaint with the relevant authority or agency that enforces health and safety laws in your area.
• Seek legal advice from a lawyer or a legal clinic that specializes in employment law.

Conclusion:
We have discussed the right to refuse unsafe work and how to protect yourself from harm in the workplace. We have emphasized that your life is more important than your job and that you should not compromise your health and safety for any reason. We have also explained how to know your rights as a worker and what steps to take if you encounter unsafe work conditions. We hope that this information has been helpful and empowering for you. We urge you to familiarize yourself with the relevant safety regulations in your industry and to follow them diligently. And most importantly, we encourage you to speak up and refuse unsafe work without fear of retaliation or discrimination. You have the right to work in a safe and healthy environment, and you deserve respect and dignity from your employer.

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EXCAVATION SAFETY

OSHA defines an excavation as any man-made cut, cavity, trench, or depression in the Earth's surface formed by earth removal. In recent years, a significant number of underground projects, such as underground retail malls, underground stations, underground parking lots, and mixed-use projects, have been planned, along with the peripheral scant piling envelopes, and a variety of excavation issues. With the emergence of a growing number of excavations, the scale of the project is escalating, bringing with it numerous excavation stability issues.

The potential dangers that can arise from the stability issues are listed below; Cav-ins are the greatest risk an excavation activity holds. It causes most fatalities. Falling loads are another nightmare, as one cubic soil weighs as heavily as a car. Furthermore, a hazardous atmosphere (The collapse of the nearby soils due to self-loads) and hazards from mobile equipment add fuel to the fire. An unprotected trench can be an early grave.

Prerequisites of Excavation

- An approved local working procedure (in compliance with OSHA Law) is required to initiate the excavation activity in a workplace.
- The area specified for excavation is to be determined where and why this activity of excavation is required.
- Excavation standards require a classification of type of soils, ■ Stable rock (Natural solid mineral matter), ■ Type A soil (clay, silty clay, sandy clay, and clay loam), ■ Type B soil (angular gravel, similar to crushed rock, silt, silt loam, sandy loam, and, in some cases, silty clay loam and sandy clay loam), or ■ Type C soil (submerged soil or soil from which water is freely seeping, submerged rock that is not stable, or material in a sloped).
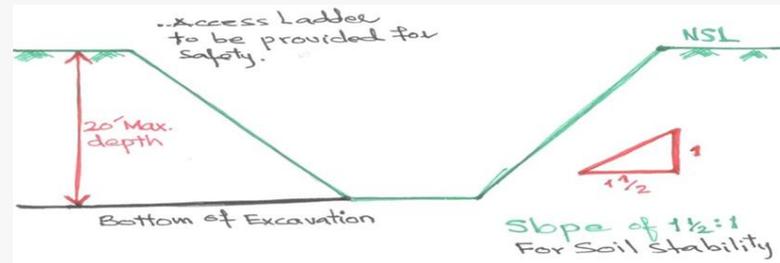

Fig. Cross-section of excavation.

Steps to be followed before excavation

1. Mentioning the purpose of excavation on a prescribed format is called an Excavation Certificate.
2. Pre-planning before the excavation activity is vital as it prevents on-site incidents which can cost human life.
3. The depth of the excavation will help to propose the method of excavation.
4. Use metal detectors to identify the services underneath of the excavated area.
5. By suitable shoring or otherwise to guard against danger to workers from a fall or dislodgement of earth, rock, or other material
6. To guard against dangers arising from the fall of persons, materials, or objects or the inrush of water into the excavation, shaft, earthworks, underground works, or tunnel, suitable precautions must be taken.
7. Securing adequate ventilation at an excavation site to maintain an atmosphere fit for breathing and to limit any fumes, gases, vapors, dust, or other impurity levels that are not dangerous or injurious to health and are within limits laid down by national laws or regulations.

8. To avoid risk to workers arising from possible underground dangers such as electrical wires, utility services, the circulation of fluids, or the presence of pockets of gas, by undertaking appropriate investigations to locate them.

Method of Excavation

The Excavation standards describe various methods and approaches that can be used to design protective systems. Protective systems for excavation, which include the following steps: Sloping the sides of the excavation to an angle not steeper than 1½:1 (for every foot of depth, the trench must be excavated back 1½ feet). A slope of this gradation is safe for any type of soil. To provide ladders, steps, ramps, or other safe means of egress for workers working in trench excavations 4 feet (1.22 meters) or deeper. The means of egress must be located so as not to require workers to travel more than 25 feet (7.62 meters) laterally within the trench.

Any worker who enters a bellbottom pier hole or similar deep and confined footing excavation wears a harness with a lifeline. The lifeline must be attached securely to the harness and must be separate from any line used to handle materials. Also, the lifeline must be individually attended by an observer at all times when the worker wearing the lifeline is in the excavation.

Inspections must be done before the start of work and as needed throughout the shift. Inspections are also required after natural events, such as rainstorms, or other hazard-increasing occurrences, such as blasting work. If an inspector finds any unsafe conditions during an inspection, the employer must clear workers from the hazardous area until the necessary safety precautions have been taken. The Excavation standards do not require a protective system when an excavation is made entirely in stable rock or when an excavation is less than 5 feet (1.52 meters) deep.

Conclusion

When employers designated for the work/excavation activity share the details of their safety and health programs with workers, they should emphasize the critical role workers play in keeping the jobsite safe. Employers also need to emphasize specific practices that will help reduce the risk of on-the-job injuries at excavation sites. Such practices can include the following:

- Know where underground utilities are located before digging.
- Keep excavated soil (spoils) and other materials at least 2 feet (0.61 meters) from trench edges.
- Keep heavy equipment away from trench edges.
- Identify any equipment or activities that could affect trench stability.
- Test for atmospheric hazards such as low oxygen, hazardous fumes, and toxic gases when workers are more than 4 feet deep.
- Inspect trenches at the start of each shift.
- Inspect trenches following a rainstorm or other water intrusion.
- Inspect trenches after any occurrence that could have changed conditions in the trench.
- Do not work under suspended or raised loads and materials.
- Ensure that personnel wear high-visibility or other suitable clothing when exposed to vehicular traffic.

Muhammad Ali Awan
(M.Phil. OHS 2023-2025

Building a Fortified Future: The Power of a Strong Safety Culture

In today's dynamic workplaces, safety isn't just a rule; it's a crucial strategy. "Building a Fortified Future: The Power of a Strong Safety Culture" explores how a robust safety culture goes beyond rules, creating a shared commitment to well-being among employees. This vigilant culture ripples through the organization, making safety a fundamental part of daily operations. It's not just about following procedures; it's a cultural shift that demands collaboration, communication, and ongoing improvement.

What is safety culture? In an organizational context, a safety culture represents the collective values, beliefs, attitudes, and practices related to safety. It encapsulates the shared mindset and behaviors of individuals across all levels of the organization, emphasizing the significance of prioritizing and upholding a secure work environment. A good safety culture is distinguished by a dedication to employee well-being, a proactive stance in recognizing and mitigating potential hazards, and an ongoing commitment to enhancing safety protocols.

Organizations must recognize the significance of building trust. To earn the trust of the workforce, management needs to focus on effective communication. While leaders often engage in floor walks, observations, and closing ceremony speeches, these efforts might fall short when it comes to fostering a culture of trust.

Developing a strong safety culture involves stepping out of the comfort zone and actively engaging with workforce issues related to safety. Leaders should respond promptly with positive feedback or solutions, demonstrating that the concerns of employees are not only heard but also given due importance. Regular communication is key; leaders should talk to employees frequently, encouraging their participation in decision-making events.

Arconic Inc., formerly known as Alcoa, has earned acclaim for its strong safety culture and meticulous statistical analysis. The aluminum manufacturing giant underwent a significant transformation in its safety practices under the leadership of CEO Paul O'Neill. Emphasizing open communication and fostering an environment where employees felt at ease reporting hazards, O'Neill's approach resulted in remarkable improvements in safety performance and increased productivity. His dedication to safety had a transformative impact on the company's overall culture and success.
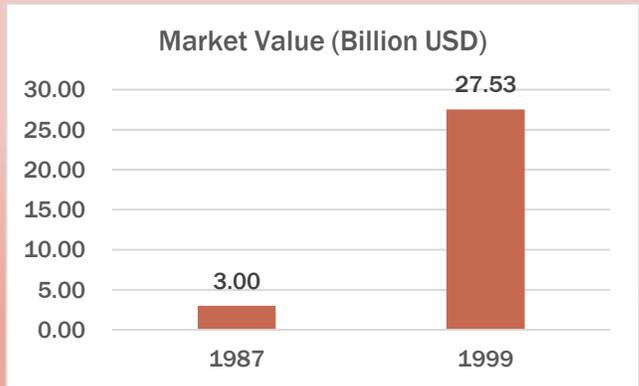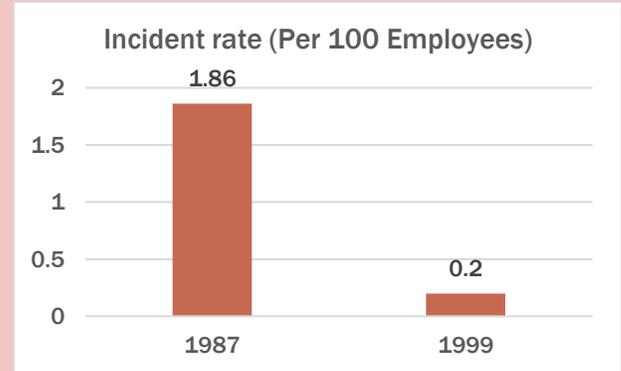

Figure 1: Alcoa progress 1987-1990 under Paul O'Neill's leadership

Professor Patrick Hudson shared similar observations and identified the increasing levels of trust as an indicator of maturity in his Five Levels of Safety Culture Model. This suggests that trust plays a crucial role in the development and maturation of a safety culture within an organization.

Increasing Communication

Increasing Trust
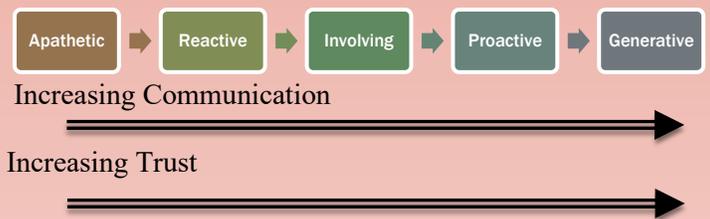
Leadership stands at the heart of every strong safety culture. It is not just about having rules or systems in place. True safety grows when leaders make it personal. They step into the daily work of their teams. They listen to what workers say and leaders act on real concerns raised by workers. This approach changes everything, everything means everything, psychologically change worker mind set towards management and business leaders, workers start to trust their leaders. They feel safe to speak up, No one hides small risks anymore. Everyone works together to keep things safe.

Think about what happens without good leadership. Safety becomes a checklist and people follow orders but

do not own the process. Incidents keep happening and Blame goes around or sometimes goes unreported. Trust breaks down. Now picture the opposite. Leaders walk the floor every day. They ask questions like, "What risks do you see that we are not able to address to keep you safe? Or what we can do better to make your job easier" that will directly impact on worker mind set if suggestions taken on priority and action taken with feedback. True leaders thank people for honest answers and fix issues right away. This builds a wall of trust. Workers report near misses, Teams spot problems early. Accidents drop. The whole workplace feels stronger.

To make this real, companies need ways to measure leadership. Enter Visible Felt Leadership, or VFL. This is not vague. It is practical. Leaders set clear goals. They track daily floor walks. Count toolbox talks with teams. Note one-on-one chats. Log how they solve worker concerns. Follow up in writing or meetings. Share results company wide. VFL metrics might look like this: 20 floor walks per week per leader. Five safety talks per shift. 100% follow-up on reported issues within 48 hours. Tie these to performance reviews. Reward leaders who excel. This shifts focus, Safety moves from numbers like "zero incidents" to actions like "real engagement." Workers see the change. They join in and Trust grows with Fear fades. Safety becomes how everyone works.

In the end, a strong safety culture rests entirely on the choices leaders make every day. Strong leaders build trust brick by brick through consistent, visible actions that show they care. Workers gain the courage to speak freely about risks, teams start protecting each other like a family, and organizations reach new heights of maturity where accidents become rare. This is the fortified future we all seek, and it starts with leaders who truly lead from the front.

Conclusion

Having worked with numerous global multi-site corporations and it is interesting to note that they often implement the same procedures, policies, and equipment across their various sites. However, what's noteworthy is that one site can operate at the reactive level, while another functions at the proactive level.

The key differentiator? Leadership!

In conclusion, leaders and organizations should prioritize factors to cultivate a robust safety culture. As organizations navigate the complexities of today's dynamic workplaces, it is evident that safety is not just a set of rules but a strategic imperative. To fortify the future and ensure the well-being of employees, leaders must embrace key elements that extend beyond procedural measures.

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The Prevention of Sexual Harassment (PoSH) at Workplace Act

Workplace harassment prevention is a national and international issue. It is widely acknowledged that sexual harassment violates human rights and is a type of gender discrimination. Any employee at any type of employment, including offices, factories, farms, plantations, and small and major businesses, may experience sexual harassment.

Sexual harassment has an impact on companies, workers, and society at large. The Equal Opportunity Committee of the United States reported 12,025 sexual harassment cases in 2006, a sharp 100% rise. It is well established from research that workplaces where harassment is tolerated typically see a sharp decline in productivity. Sexual harassment damages a company's reputation and increases absenteeism, staff turnover, and the loss of valuable employees.

"Silence or a lack of complaints does not mean sexual harassment does not occur. Many instances of workplace violence occur out of the general public, in one-on-one situations, resulting in emotional rather than physical injury to the victim, and produce extensive costs both for employers and for the victim. What is workplace harassment?

The following are examples of workplace harassment, per the POSH policy:

- Any sexual advances or remarks directed at the employee
- Requesting sexual favors in exchange for a job or advancement
- Eve making flirtatious or playful remarks
- Uninvited sexual comments or actions
- Unsuitable physical touch inappropriate messaging

POSH ACT

The POSH Act clearly defines sexual harassment in the workplace and details various forms of workplace harassment and misconduct. POSH Act was passed by the Indian Government in 2013 as a significant step towards creating safer workspaces. The most important features that define the Prevention of Sexual Harassment Act.

- It requires all businesses to establish an internal complaints Committee, which is in charge of accepting and handling sexual harassment allegations.

- All processes must be conducted in confidence, and the identity of all individuals engaged must be kept secret, according to the POSH Act and its regulations.
- Additionally, in the event of retaliation, the statute offers protection to the complaint.
- Consequences may vary from fines or disciplinary action to criminal procedures, depending on the findings and seriousness of the misconduct, in accordance with existing legal restrictions.

The POSH Act requires an employer to set up an 'internal committee' ("IC") at each office or branch, of an organization employing 10 or more employees, to hear and redress grievances pertaining to sexual harassment. It is also critical to continuously assess POSH's efficacy. Employers need to prepare for retaliation and guarantee confidentiality. Organize frequent POSH meetings at work to make sure that new hires are informed.

How To Ensure Workplace Safety With POSH?

Step 1: Create a Detailed POSH Policy:
Make a formal Prevention of Sexual Harassment policy first. This paper should outline sexual harassment in the workplace, how to register a complaint, what steps the company will follow, and any other necessary requirements.

Step 2: Involve the top management:
It's crucial to make sure the top management supports this. The process of protecting the workplace should involve top executives, and they should be given the tools they need to do it.

Step 3: Set Up an Internal Complaints Committee:
In order to handle complaints under the POSH law, your company must establish an ICC if it employs ten or more people. At least four people must be on this committee: a senior female employee serving as the presiding officer, two workers, and an outsider with legal expertise or experience in women's rights.

Step 4: Conduct Awareness Training:
Workers must understand what POSH is and what legal rights they have. Therefore, it becomes the duty of the organization's leaders to hold a training session and raise awareness about POSH.

This Act help employers to understand their legal responsibilities in relation to harassment and victimization, the steps they should take to prevent

harassment and victimization at work and what they should do if harassment or victimization occurs. It also helps employers to understand their positive legal obligations in relation to the preventative duty, the steps they must take to prevent sexual harassment at work and what they should do if harassment occurs. It also helps workers to understand the law and what their employer should do to prevent harassment and victimization, or to respond to their complaint of harassment or victimization. It helps lawyers and other advisers to advice workers and employers about these issues

give employment tribunals and courts clear guidance on the law on harassment and victimization, the legal scope of the preventative duty and best practice on the steps that employers could take to prevent and deal with harassment and victimization

Early in 2010, the Pakistani government enacted the "Protection against Harassment of Women at Workplace Act 2010." The goal of the law is to give all organizations public, corporate, and civil society the chance to create a self-regulation system that would enable them to deal with sexual harassment issues internally. In order to modify their institutional culture and make it respectable for both men and women, management must take the initiative.

The seminar will present the draft Guidelines on Prevention and Management of Sexual Harassment at the Workplace and explore strategies for preventing and managing sexual harassment in the workplace to improve the working environment.

Conclusion:
One of the most important aspects of creating a physically and psychologically safe workplace is preventing sexual harassment, comprehend the POSH policy, and implement it at work.

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https://peef.org.pk/system/files/Policy-For-Harassement.pdf

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Activities

Comprehensive risk assessment practical

Organized the First Aid and CPR training session

4th International Conference on earth and environmental sciences

Organized the safety webinar

Class Tours: Industrial

Up Coming Events

Pakistan Occupational Health and Safety Association Collaboration (April 2026)
Pre/Post seminar on Associate Safety Professional (ASP) Certification (November)
Rescue 1122 Training (Basic Life Support Course) Coming soon

Note: If anyone wants to put his/her article in this Newsletter, contact us at
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