

Spotlight

PSIN NEWSLETTER

**PROCESS SAFETY INITIATIVE OF NIGERIA**

HAZARD AND RISK ASSESSMENT

A hazard only exists if there is a pathway to exposure. The frequency and severity of hazards are an important aspect for risk assessment. Substances, events, or circumstances can constitute hazards when their nature would potentially allow them to cause damage to health, life, property, or any other interest of value.

The probability of that harm being realized in a specific incident, combined with the magnitude of potential harm, make up its risk. The fundamental determinants of hazard and the risk of such hazards occurring is; timing, location, magnitude, and frequency.



WITHIN THIS VOLUME:

A hazard is anything that has the potential to cause harm. The likelihood of a hazard resulting to an incident is known as risk. Hazards can be classified in several ways which are not mutually exclusive. They can be classified by causing actor e.g., natural or anthropogenic, by physical nature e.g., biological or chemical, or by type of damage e.g., health hazard or environmental

2024 INTERNATIONAL SEMINAR -PROCESS SAFETY PUBLIC LECTURE



PROCESS SAFETY INITIATIVE OF NIGERIA
IN CONJUNCTION WITH
NIGERIAN SOCIETY OF CHEMICAL ENGINEERS



Presents

An Innovative Seminar

THEME

**SAFE
TRANSPORTATION
& HANDLING
OF PETROLEUM
PRODUCTS**



Engr. Onochie Anyaoku,
FNSChE, FNSE, FAEng
CHAIRMAN



Dr. Oyet Gogomary
GM HSSE, NNPC
RETAIL LTD

SPEAKER



Engr. Farouk Ahmed
ACE, NMDPRA

SPEAKER



Mr. Huub Stokman
CHAIRMAN, MEMAN

SPEAKER

AUG 15, 2024 || 3.00 PM

On 15 August this year, Stakeholders in the Oil & Gas, and the Chemical Process Industries in Nigeria, once again gathered to deepen the knowledge and practice of Process Safety in the country. Three very eminent speakers were assembled and they did justice to PSIN innovative seminar with the theme; 'Curtailling Petroleum Products Transportation & handling Incidents in Nigeria', Chaired by Engr. Onochie Anyaoku (FAEng.), a retired Group Executive Director (GED) of NNPC and Past President of NSChE. A very distinguished Chemical Engineer, highly respected in the Oil & Gas Industry and a professional who serves as the Chairman of the Board of Trustees of PSIN. Topics discussed included, Petroleum Products Transportation, Accident Causation Factors, Petroleum Products Transportation by Road, Ways to Curtail Petroleum Products Transportation & Handling Incidents and Fleet Management System.

Process Safety caters to the more intrinsic aspects of Safety and occurrences which may lead to catastrophic incidents involving massive loss of lives and assets. This differs slightly from Occupational Safety which focuses more on routine prevention of injury to personnel. Both components of the Safety endeavors are complimentary and of equal importance, for emphasis.

Last year we had a very successful Public Lecture, with the Executive Director of the US Center for Chemical Process Safety (CCPS) as our Guest Speaker. For two years in succession, we have also been International Partners for the African Process Safety Webinar, organized by CCPS.

In this role we have been able to encourage and mobilize Nigerian participation in this very informative and robust international Process Safety forum. In the most recent outing in July, 2024. 50% of attendees came from Nigeria



Risk assessments are not done simply for fulfilment of righteousness, they contribute real and irreplaceable value to the workplace by helping identify current and potential hazards and risks that could lead to incidents.

A strong risk assessment investigates all areas of the workplace and considers hazards in electrical and fire safety, hazardous substances, fire outbreaks, etc. Furthermore, risk assessments afford the opportunity to gather more knowledge on the risks present in the workplace that could cause human injury such as, broken bones, and other bodily harms. It goes on to consider mental risks

such as stress, long working hours, to name just a few. It then implements organizational strategies to curtail them.

Additionally, risk assessments can help save money – by helping reduce incidents and subsequent legal liability. In this case, a risk assessment can protect the organization.

With regulations and compliance existing around health and safety of humans, the environment and capital equipment, risk assessments are no longer a choice for organizations. Employers are legally required to protect their employees' well-being in the workplace and risk assessments can aid in this reality.

RISK ASSESSMENTS IN THE WORKPLACE

A risk assessment is an important part of an organization's health and safety management plan. The stages of a risk assessment are threefold:

- Identify hazards and risks in the workplace
- Evaluate the risk level and likelihood of the risk or hazard.
- Create a plan for eliminating or controlling the risk or hazard in circumstances where it cannot be eliminated.

BENEFITS OF RISK ASSESSMENTS:

The benefits of a risk assessment are limitless. From protecting employees to helping maintain budget, a risk assessment can do it all!

□ Greater Awareness of Risks in the Workplace

First and foremost, risk assessments will provide clarity around how hazards and risks have been identified and minimized or eliminated. This helps the health and safety team to understand what hazards and risks they must be most aware of in their place of work.

□ Employee Education

Carrying out a risk assessment properly means ensuring all the relevant staff members are made aware of the required procedures and guidelines for tackling risk in the workplace. Many organizations benefit from the use of Staff Engagement software to provide dynamic training to help immerse them in health and safety awareness within day-to-day activity.

□ Identification of Likelihood and Scale of Potential Risks

A successful risk assessment does not just list hazards and risks. By using a risk matrix, companies can identify the most urgent risks and outline the severity and likelihood of impact for each, allowing companies to prioritize what to tackle first.

□ Determine What Actions Are Required

Carrying out a successful risk assessment often means you will be left with new, very useful data. This data will help you identify the areas within your workplace that need the most attention and enable you to put effective control measures in place to reduce risk.

❑ **Proper Documentation**

There is simply no way to get around the need for documents. A risk assessment will help create a repository of hazard findings. This is not only beneficial for transparency across the company but can help with carrying out audits and passing legal safety measures. Compliance software can help streamline the record-keeping process for you so you can quickly and easily demonstrate your compliance with regulations when required.

❑ **Better direction in Budget Allocation**

With a risk assessment carried out, your organization has a clearer understanding of the required health and safety strategies that should be included in the budget moving forward. Knowing the severity and likelihood of a hazard will allow your organization to budget accordingly to control or eliminate found hazards that could cause an even larger strain on the budget.

❑ **Incidents reduction in the Workplace**

By carefully inspecting the workplace and taking proper next steps, a company can substantially reduce the number of incidents at workplace. A lower incident number displays an organization's integrity and dedication when it comes to caring for their employees, environment, and company property, which is beneficial for aligning to company's corporate target.

❑ **Enables active engagement of health and safety.**

Proactive reporting helps organizations create a culture of engagement and further promotion of all things health and safety. The benefits of creating a positive culture are enormous, including, of course, the reduction of actual incidents. Having well-trained employees who are knowledgeable on the risks in their workplace also decreases the chance of productivity being stalled should an incident occur, as they will know how to handle various situations.

Many businesses experience an overall boost in employee morale when workplace safety is prioritized. When employees feel safe and protected on the job, they experience less stress and can perform their duties more effectively. A strong safety record also enhances your company's reputation, attracting a wider pool of qualified candidates and increasing employee retention, as staff are more likely to stay with a company that demonstrates a commitment to their well-being, creating a culture of reporting has the impact of continuously promoting active engagement around an organization. As employees share best practices and learn from each other's experiences, they can help boost their own well-being through a greater understanding of incidents and how to prevent them. A positive reporting mindset helps establish a workplace of camaraderie, understanding and partnerships – decreasing the risk of employees developing mental health problems because of feeling unsafe or isolated at work.

INCIDENT REPORTING- THE WHY'S AND HOW

Incident reporting is essential for maintaining a safe and compliant workplace. Thorough documentation of every workplace incident, no matter how minor, helps prevent future, potentially more serious incidents.

Accurate incident reporting remains a challenge for many leaders, highlighting a critical gap in workplace safety management and compliance standards. Prioritizing detailed and consistent

incident records can enhance safety awareness and reduce the risk of recurrence across all levels of an organization.

WHAT IS INCIDENT REPORTING?

Incident reporting is the action of recording an incident such as an injury or damage to equipment or property. Incident reporting is often documented on an incident reporting form – which is completed by collecting as much data as possible about the incident that took place, its time, location, and limit of exposure. It's important to note that this data must comprise cold, hard facts rather than fluffy opinions or biased statements about what happened.

The form should also include evidence of the incident (photos, video footage or illustrations) as well as signatures from the people impacted or witnesses to further provide legitimacy.

Recording detailed information in this way protects organizations when it comes to inspections and insurance claims and helps prevent the incident from repeating itself by putting measures in place.

After an incident report is completed, a thorough investigation is conducted to identify root causes and contributing factors. Based on these findings, appropriate safety measures and preventative actions are implemented, which may include updating safety protocols, installing protective equipment, or modifying workflows. To reinforce these improvements, targeted training sessions and awareness programs are provided to ensure that employees understand the new measures and are equipped to prevent similar incidents in the future.

CONCLUSION:

Embedding health and safety into the organization helps ensure colleagues have the knowledge needed to confidently handle hazards in the workplace. To help execute a risk assessment, consider a software solution designed specifically to ease the stress, admin, and complexity of carrying out the task.

Risk assessments bring with them all sorts of benefits, from helping avoid unpleasant incidents to saving your company resources. While most people assume incidents are largely a result of employee actions, most incidents occur because of negligence on the part of health and safety processes.

Whether it's a fatal incident or just a near miss, incidents should be reported as close to the actual event occurring as possible. Many employers have introduced strict time frames for the reporting of workplace incidents so they can ensure efficient reporting. Placing time limits on businesses for the reporting of injuries and fatalities within a time frame is a good practice

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