

Approach:

The assignment approach is initially planned as three (3) monthly sessions with the aim of elevating 'XY Engineering's' implementation of the '*generic off-shelf (name withheld)*' health and safety system to one of a professional safety conscious organisation. This may include customising systems to match 'XY Engineering' specific requirements. Recommendations are referenced at the appropriate locations within the report (i.e. R4). Recommendations are advisory, and suggested to promote OHS Best practice.

Visit Overview:

This first session involved going over the major Health and Safety responsibilities covering the specific system components including:

- **Policy** - OHS Policies outlining the company's commitment to OHS
- **Planning** - Hazard identification systems, outlining safe operational procedures
- **Implementation** - Carrying out risk assessments and considering how risks could be reduced, Leading in-house training with managers supervisors and employees about health and safety issues and risks, appropriate PPE Requirements
- **Monitoring Improvement and Review** – Carrying out regular site inspections to check policies and procedures are being properly implemented, corrective action and follow up

General discussions included:

- The concept of risk management, preventive actions and product design improvements from a practical perspective is very well understood. Although Risk assessments are not formally documented, an excellent understanding of the Hazard Identification and Risk Management concepts was clearly shown. The specific example was the grate modification to a curved design "ABC" Pump. A good understanding of supplier requirements was shown particularly pertaining to mining/resource industry clients, including supplying specified supplier/vendor data information.
- The five (5) main risk management process stages were outlined. Identification, assessment, control, implementation (including re-assessment) and monitoring.
- The hierarchy of hazard controls, was also explained (Elimination Substitution Isolation Engineering Administrative, PPE-personal protective equipment) PPE is the least effective form of hazard control.
- Incident reporting and effectively communicating the way incidents are handled
- An overview of potential inspections and assessments including inspections resulting from Major Incidents (including environmental, as applicable) and 3rd party management certification audits.

Recommended actions include:

- A product operational risk assessment be documented on the 'ABC' Pump
- A simplified risk assessment format be provided to suit 'XY Engineering'
- Safe operating procedures/JSAs be distributed at the work locations, samples assessed for compliance during next visit
- Review employee induction manual distribution and retention of sign-off acknowledgement sheets
- Reporting of incidents to be maintained as documented by the "*generic off-shelf*" system
- Appropriate PPE provided for factory shop floor/visitors Hi Vis vests, Glasses, Hearing protection

1. PolicyContext

The organisational OHS policy communicates the company's work place health and safety commitment to all staff, existing customers, potential customers and all other interested parties. It is generally displayed in prominent locations on the premises, such as the company's main entrance way,

noticeboards and copies included in the employee induction books and company websites.

Discussion:

The Company's OHS policies, signed and dated Oct 2012, regarding workplace health and safety, including rehabilitation policy is well displayed on the Safety Area notice board, near the stairs to the mezzanine. Copies of '*generic off-shelf (name withheld)*' formats of Risk assessment and incident report forms are contained in a manila folder pinned on to the notice board. (R1,R2,R3)

Recommendations:

To communicate '*XY Engineering*' commitment to OHS to visitors, customers, potential customers, subcontractors, vendors and other interested parties it is suggested;

- R1 The original signed and dated OHS Policy is framed and prominently displayed at the main entrance and
- R2 An electronic copy of Health and Safety Policy be uploaded to the '*XY Engineering*' Web Page

R3: Observation. Consider other ways the OHS notice board area (near the stairs) may be used to promote safety awareness at '*XY Engineering*'. E.g. Safety awareness posters, displaying incident responses, updates to legislation, conducting team safety awareness blitzes.

2. Work place health and safety planning

2.1. Hazard identification and risk assessments

Context

Hazard identification and risk assessment processes are planned events conducted as part of managing work place health and safety. These are defined activities/events, performed in collaboration with company employees to identify the OHS Hazards and assess and control work activity, product and process risks. It's important that each employee understands the basic concepts of hazard identification and risks in the work place. As part of their everyday work, employees should know what are the most significant risks are in their work activities and create a mindset/awareness of the ways to eliminate or at least minimise these risks.

Risk assessments are conducted:

- Before changing work practices procedures or the work environment
- Before using purchased new or used equipment or before using new substances
- When planning to improve productivity or reduce costs
- Upon the availability of new information about workplace risks
- When responding to workplace incidents, including, as applicable, when there has been no injuries (near misses)
- When workers, health and safety representatives raise concerns at the work place

Risk assessment is a process based activity with a clearly defined start and end points

The process for identifying hazards and assessing risk includes:

- Identifying the risks – what can go wrong, where, when why had how it can happen ?
- Analyse the likely hood and consequences to determine risk severity risk score level and subsequent actions
- Determine and implement the risk controls. From preventing the risk (eliminating the hazard) as the most effective control and should be the first control method to be considered to using Personal Protective Equipment (PPE), the least effective control. A number of factors, including workers' opinions will influence the decision on which control measure will be implemented, It's is also important to be able to justify why a particular control measure as chosen.

Reference:

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- Monitor and Control-reviewing the effectiveness of the controls implemented

For each of these step in the process, employees and interested parties should consulted.

Planning also involves keeping up to date with legal and other requirements.

Discussion

Although not formally implemented or documented, the concept of work place hazard identification and risk assessment is clearly understood. For example, the curved cement grate design modification of the 'XY Engineering' 'ABC' pump has effectively shown the implementation of risk elimination controls. The original flat grate design, exposed a finger injury risk for an operator, with long fingers operating the "ABC" pump. The flat grate was replaced with a curved design, effectively increasing the vertical height between the top of the grate and the moving cement mixing paddles. This prevented any possibility of fingers contacting the moving paddles during operation.

Over 18 years, a number of these type of modifications have been made to the "ABC" pump design. (R4,R5,R6)

Recommendations:

R4 Suggest risk assessments, incorporating all the design improvements for the "ABC" Pump be documented.

R5 The '*generic off-shelf (name withheld)*' Risk Assessment format to be modified and appropriately adapted to suit implementation for 'XY Engineering'. (KA-FRM-OHS-0020). Additional formats have also been included.

R6 Once completed, suggest the risk assessment register, summarising the identified risks, analysis control and implementation for the "ABC" pump be distributed to customers as part of the Vendor Data information

2.2. Standard Operating Procedures (SOPs)/Job Safety Analysis (JSAs)

Context:

JSA (Job Safety Analysis) is where each step in a work processes is assessed for hazards and risks particular to that work stage. Generally these controls can be introduced before the particular work activity begins.

Discussion:

'XY Engineering' equipment SOPs/JSAs are included as part of the '*generic off-shelf (name withheld)*' standard documentation. These generic SOPs/JSAs define the prestart checks, which include work area inspection for the required hazard controls. (R7,R13)

Some off-site work is also conducted. This work is performed in areas considered as low risk. i.e. no construction site work. Although, some work is on marine equipment. (R8)

Recommendations:

R7 Distribute the 'XY Engineering' equipment SOPs/JSAs to work areas/equipment for employees to be aware of the work hazards and required controls for the particular work activity (Plastic document holders 'Jastek Kwikview Display A4 Pocket Book" will protect distributed hard copies from dust and grime and grease).

R8 Specific off-site JSAs may need to be developed if work is performed in high risk areas i.e. on water or construction sites.

3. Implementation

Context

Implementing the most appropriate control measures to control hazards involves 1) effective planning, 2) allocating resources and responsibilities to effectively implement controls, 3) communicating with employees, 4) where applicable, providing training to achieve the required OHS competencies and 5) reporting to track performance, including incidents, hazards and risks.

Discussion:

Communication:

Employee induction hand books detail to each employee working at or starting employment, 'XY Engineering's' way of working. Employee induction hand books, dated January 2011 have been handed to employees and the 'tear-off' acknowledgement sign off sheets signed and filed. (R9)

The 'XY Engineering' safety representative, JL, is the main contact point for communicating shop floor work place health and safety issues and monitors workplace health and safety of employees on a daily basis. JL also holds a first aid certificate.

As yet no formal training programs have been conducted. (R10)

Reporting:

A process exists for incident reporting, though not all incidents are recorded to initiate a review of the work area. (R11)

Hazard controls-PPE:

PPE requirements are typically included in work task SOPs/JSAs. PPE is distributed to employees on an as required basis including, safety glasses, gloves, hearing protection, welding protective equipment. An outside footwear supplier monitors employee requirements for steel capped work boots. (R12)

Recommendations:

R9 Review employee induction manual distribution and retention of sign off acknowledgement sheets

R10 Consider a consistent approach, based on the '*generic off-shelf (name withheld)*' manual training, amongst workers to identify hazards and eliminate risks of work injury. This, as a start, may be as simple as "STOP-THINK of what can go wrong" thinking/message before each job is started.

R11 Clarify the details of the Nambour employee's cut hand incident with M L (Foreman)

R12 A designated area be allocated to hold PPE for customers, vendors and visitors accessing the factory shop floor. Hi visibility vests, safety glasses, hearing protection.

4. Monitoring and Improvement

Context

Systematic inspection at the workplace plays a key role in the control of Workplace Health and Safety hazards. Health and safety issues can be detected and raised quickly for resolution before any harmful event takes place. Another reason for inspections is they ensure the workplace complies with all relevant Health and Safety Legislation, Standards and Codes of Practice.

Work place inspections include inspecting: Work Practices, Plant Machinery and Tools, Personal Protective Equipment (PPE), Mobile Equipment, Safety Notice Boards, Emergency Equipment, First Aid, Dangerous Goods etc.

Monitoring the workplace also involves monitoring the effectiveness of implemented control measures which will question: Have the chosen control measures been implemented as planned? Are the chosen control measures working? And are there any new problems?

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Discussion

An authorised external electrical contractor conducts testing of 78 on site electrical assets. All tested electrical equipment is tagged and recorded into the electrical test register. A completed 2010 list was attached to a letter from the insurance broker to advise of existing plant and site capabilities.

As part of the day to day operations, JL health and safety representative JL, keeps a good over view on the overall shop floor plant compliance to Workplace Health and Safety requirements.

Recommendations:

R13 During the next visit, assess the effectiveness of SOPs/ JSAs amongst 'XY Engineering' employees. CNC lathe and cold saw SOPs/JSAs are suggested as samples for assessment.

R14 Review the required testing frequency for electrical equipment.

R15 Long Term Action. Introduce a simplified system, based on '*generic off-shelf (name withheld)*' systems as applicable, work place inspections for staff and employees to complete.

Attached

- Hazard Identification and Register (KA-FRM-OHS-0010)
- Risk Assessment Form (KA-FRM-OHS-0020)
- Hazard and Risk Register (KA-FRM-OHS-0030)
- Risk Assessment Procedure(KA-PRO-RM-0010)

____ Signed N Kure _____

Kure and Associates

Date 11 October