Management's Proactive Role in Safety and Health in Human Work Organizations

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Abstract

Both employers and employees have responsibilities and rights under the Occupational Safety and Health Act. Management, for example, are responsible for meeting their duty to provide a workplace free from recognized hazards, and for examining workplace conditions to make sure they conform to applicable standards. Employees also have rights and responsibilities, but cannot be cited for violations of their responsibilities. This review work examined management's proactive role in safety and health in human work organizations. The paper suggest that management of an organization should ensure that employees comply with all applicable Occupational Safety and Health Act Standards, follow all safety and health rules and regulations, and reporting hazardous conditions to the supervisor.

Key Words: Management, Safety, Health, Employee, Organization, OSHA, and Workplace.

Introduction

Managements need to take the lead in designing and redesigning their workplace environments for worker safety and comfort. Improving workplace environments reduces the number of accidents and insurance claims. As a consequence, individuals, organizations and society all benefit from improvements in occupational safety and health.

Occupational Safety and Health refers to the physiological/physical and socio-psychological conditions of an organization's workforce resulting from the work environment. If management of an organization takes effective safety and health measures, fewer of its employees suffer harmful forms of these conditions. Hazardous physiological/physical conditions caused by occupational diseases and accidents include actual loss of life or limb, cardiovascular diseases, various forms of cancer such as of the lungs, emphysema, and arthritis. Other harmful conditions are leukemia, white-lung disease, brown-lung disease, black-lung disease, sterility, central nervous system damage, and chronic bronchitis. Hazardous socio-psychological conditions caused by occupational stress and low quality of work life include dissatisfaction, apathy, withdrawal, projection, tunnel vision, forgetfulness, inner confusion about roles and duties, mistrust of others, vacillation in decision making, inattentiveness, irritability, procrastination, and a tendency to become distraught over trifles (Schuler, 1982; Schuler, 1984).

With a mandate to be more cost-effective and to play a more significant role in the management of human resources, human resource managers can prove their value by concerning themselves with occupational safety and health in organizations (Schuler 1984; Hilaski, 1981). Indeed, many human resource management functions and activities are related to occupational health, and its neglect can result in substantial costs to the organization. Thus, effective human resource managers should develop both an awareness of and strategies for improving occupational safety and health in the organization. Also, the enormous costs involved, both in Naira and human terms, is enough to justify the importance of improving occupational safety and health. The purposes of improving safety and health are primarily to reduce these costs and make the work environment better for all employees.

Safety and Health Issues in the Workplace

The Occupational Safety and Health Administration focuses on several aspects of workplace safety and health. Among the most prominent of OSHA's concerns are on-the-job injuries, exposure to hazardous chemicals, injuries or death due to workplace violence, and a broad range of occupational diseases.

On-The-Job Injuries

There are various causes of accidents, an estimated 88% of them results directly from employees performing, unsafe acts, often in direct violation of company policies (Abert and Jan, 1987). Robert et al (1993), indicates that over 80% of accidents involving employee error result from misjudging the degree of hazard. However, whether an employee violates a safety regulation knowingly or unknowingly, accident occurs, it is legally the responsibility of the employer.

Hazardous Substances

Hazardous substances represent a special category of agents that can inflict injuries on the job. According to Patterson (1997), "hazardous substances are those that cause an immediate injury through burning or poisoning or those that may have insidious longer-term effects through occupational disease. Hazardous Communication Standard (HCS) of OSHA gives employees the right to know the hazards of chemicals in the workplace, along with precautions to take in working with those chemicals (Michelle, 1999). William (1999) highlight that OSHA also outlines special and extensive inspection procedures for identifying hazardous substances in the work environment.

Violence in the Workplace

Violence in the workplace has become an increasingly important safety and health issue in organizations. In fact, there are at least four sources of violence in work settings: (1) Violence by strangers; (2) Violence by customers/client; (3) Violence by coworkers; and (4) Violence by personal relations.

The risk of being a victim of workplace violence depends significantly on the occupation in which one is employed. However, a number of other factors have been identified as increasing the likelihood that someone will become a victim of workplace violence (Greg, 1998). Among these are the following:-

1. Having contact with the public.
2. Being involved in the exchange of money.
3. Delivering passengers, goods, or services.
4. Having a mobile workplace, such as a taxicab or police cruiser.
5. Working with unstable or volatile persons in health care, social services, or criminal justice.
6. Working alone or in small numbers.
7. Working late at night or during the early morning hours.
8. Guarding valuable property or possessions.
9. Working in community-based settings.

In addition to these job-related factors, several organizational factors may increase the probability that a violent incident will occur (Peter and James, 1997). Poorly trained supervisors who exhibit aggressive behaviour and/or reinforce such behaviour in their subordinates may enhance the likelihood of violence. Highly authoritarian organization cultures that tend to deprive employees of dignity and respect may also increase violence in the workplace. Organizations undergoing downsizing or in which employees are frequently fired are more likely to experience violent acts. Finally, violence is more likely to occur in firms that do not have clear policies about what types of behaviour are acceptable and unacceptable and systems that guide the behaviour of employees who find themselves harassed by others.

James and Vida (1991) advised that a threat team should be formed to assess the vulnerability of the workplace to violence. This team should be comprised of both management and employee representatives and include individuals from key functions within the organization, such as security, human resources, finance, and legal affairs. Typical activities of the assessment team would be to review current records relating to violent incidents that have occurred, to conduct a workplace security analysis of the organization, and to survey employees in an attempt to identify potential security problems. This function might be performed by an organization's general safety committee, but given the special and complex nature of workplace violence, a special team to examine this issue might be warranted.

Occupational Diseases

The prevention of occupational diseases is the second dimension of the regulations concerning safe and healthful working conditions. In the opinion of Ashford (1977), "occupational diseases" are long-term health problems caused by substances that are absorbed through the skin, inhaled from the atmosphere taken internally through the mouth, or that affect one of the five senses. Table 1 shows some examples of conditions caused by workplace exposure to hazardous substances and some typical symptoms. Lewy (1997) estimated that of the 63,000 chemicals manufactured and used in American workplaces, about 160 are proven carcinogens and another 2,000 are potential carcinogens.

Table 1: Occupational Diseases and Their Causes

Condition and Some Typical Symptoms	**Example Industries or Occupations**	**Agent**
Silicon tuberculosis: Decrease in maximum breathing capacity; bloodstained spectrum; attacks of bronchopneumonia; malaise; disturbed sleep; anorexia; chest pains.	Quarrymen, sandblasters, silica processors, mining, mental foundries, ceramic industry.	SIO_2 silica
Anthrax: Cutaneous form: Red brown papule skin eruption which enlarges with red patches of variable size and shape; pus-like pimples; and hardening of tissue; muscle pain, headache, fever; nausea; and vomiting. Pulmonary form; Symptoms are insidious suggesting an influenza-like illness. Increased fever is followed in 1-3 days by severe respiratory distress with bluish-purplish discoloration of	Shepherds, farmers, butchers, veterinarians, weavers.	Bacilius anthracis

mucous membranes and skin, shock; and coma.		
Malignant neoplasm of nasal cavities; Malignant tumour; head-ache; pain; paralysis of the lateral rectus muscle of the eye.	Woodworkers, cabinet and furniture makers; boost and shoe industry radium chemists and processors; dial painters; chromium producers, processors, users, nickel-smelting and refining, Rubber industry, radiologists.	Possibly hardwood dusts; radium; nickel; chromates
Lymphoid leukemia; Abrupt onset of fever with secondary infection of mouth, throat, or lungs; joint pains; minute rounded spots of hemorrhage on skin; mucous membrane, or organ, and discoloration of skin due to blood vessel rupture plus bleeding from mouth nose, kidneys and bowel.		Unknown; lionizing radiation
Parkinson's diseases; Listlessness and sleepiness by day but insomnia by night; muscular pains, including cramps in the calves; unsteady gate; weakness and stiffness of the limbs involuntary movement of the arms, legs, trunk, jaw, and head which may be severe enough to shake the bed;	Manganese process battery makers welders, internal combustion engine industries	Manganese Fumes, carbon monoxide

occasionally uncontrollable laughter or crying.		

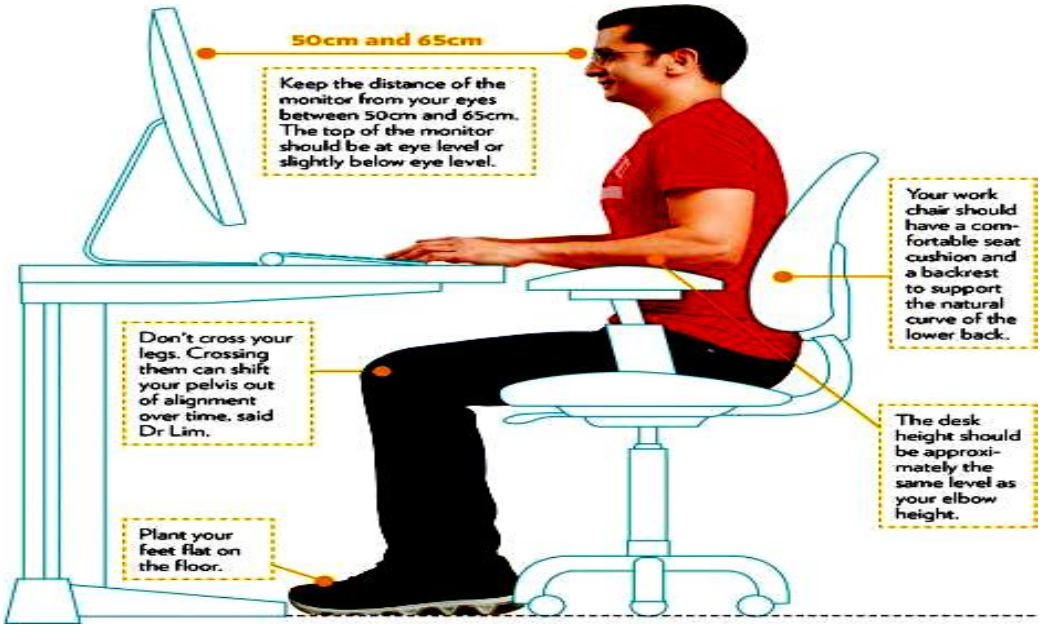
Source: Occupational Health and Safety Administration, OSHA Record Keeping Guidelines, Appendix C. Selected Illness which May Result from Exposure in the Work Environment, March, 1999.

The major problem with reducing the occurrence of occupational diseases is the difficulty of detecting them and then pinpointing their cause. Typically, the disease is linked to the workplace through statistics. Sandler (1997), said in case organization compared the percentage of employees who have the disease with the percentage of people in the general population who have the disease, if the percentage is significantly greater for the employees than for the general population, the researcher suggest that something at the workplace may have caused the disease. Such detective work is not simple.

Also, a workplace contaminant that has been receiving much attention in the last several years is "Environmental Tobacco Smoke (ETS)". ETS contains more than 4,000 chemicals, at least 43 of which are known or suspected to be "carcinogens". Charles (1998) concluded that "exposure to environmental tobacco smoke has been associated with many adverse health effects in nonsmokers, including lung cancer, heart disease, asthmas, reproductive effects, and mucous membrane irritation". Jeffrey (1993), and Robert (1994) remarked that "there is little doubt that smoking in the workplace will remain an important issue for Human Resource Managers for some time to come". Researchers have also observed that each year work-related musculoskeletal disorders (MSDs) account for one third of all occupational inquiries and illnesses (Lin, 1999). Kathryn (1990) report that in 1998, employers reported 592,500 incidents of MSDs, with the median time away from work as a result of the injury being seven days. Among these musculoskeletal injuries, Kathryn (1998) posit that "cumulative trauma disorders (CTDs), also called repetitive strain injuries (RSIs) are the fastest-growing workplace injury in the United States, having increased more than 770 percent from 1988 to 1998". Thus, cumulative trauma disorders seem to be caused by repeating the same movement many times without a break. Low-back problems are common among employees who repeatedly lift objects. Butchers in meatpacking plants frequently

suffer CTDs of the hands and arms, while word-processing and data-entry operators also report the problem fairly often.

Figure 1: Minimizing Musculoskeletal Strain at the Keyboard



Automation seems to be a culprit that is, it simplifies the motions needed and removes the chance to take breaks.

AIDS and Other Bloodborne Pathogens

For the past two decades, employers have had to learn to deal with issues of AIDS in the workplace. AIDs is a handicap covered by legal statutes. Employees who have AIDS or who test positive for the HIV virus that causes AIDS must be considered handicapped and must be accommodated (Linda, 1990). Despite the legal statutes and the fact that there is no evidence that AIDS can be spread through casual contact in the workplace, people greatly fear the disease. For this reason, employers are put in the role of educating their employees about AIDS, its transmission, and the fair treatment of coworkers with AIDS.

Nathan and Keniston (1993), comment that in 1992 OSHA issued a set of Bloodborne Pathogen Standards. The standards cover all employees who can be reasonably anticipated as the result of performing their job duties to face contact with blood and other potential infectious materials. Employers are required to identify, in writing, job duties that may expose employees to blood or other bodily fluids. The standards also outline procedures for evaluating incidents when exposure to potentially harmful bodily fluids occurs. The plan must be accessible to employees and must be reviewed annually. The standards describe procedures for handling and shipping infectious materials. Employers must provide employees, at no cost, with personal protective equipment. The standards also require employers to make available to employees appropriate vaccinations for hepatitis B within ten working days of assignment. Procedures for evaluating and following up on employees who have been exposed to infectious materials are set out. The standards require specific warning labels to be placed on hazardous waste containers and mandate training of employees to reduce the likelihood of exposure. Michelle and Joe (1992) assert that the standards also include record-keeping requirements.

Fetal Protection from Occupational Hazards

OSHA tries to protect current workers from some workplace hazards that may influence the unborn children of employees. In the past, some organizations excluded women of child-bearing age from jobs in which exposure to chemicals or radiation could pose a health hazard to their reproductive systems. Therefore, organizations must provide information to female employees about fetal health risk and allow them to make their own decisions.

Drugs in the Workplace

More and more employers are concerned about drugs in the workplace and the potential for serious accidents caused by drug-impaired employees (Janet, 1990). Stephanie (1999) observed that illegal drug use costs U.S. companies $60 to $110 billion a year. Eleven percent of employed adults are currently illegal drug users and 42 percent of employees in a Gallop survey indicated that illegal drug use greatly affects safety at their workplace. A survey by the U.S. Postal Service discovered that drug-using employees were one-third less productive, more likely to use sick leave, twice as likely to be disciplined, and 47 percent more likely to be

involuntarily terminated than non-drug users (Janet, 1990). However, many employers are testing applicants or current employees for drug abuse. Stephanie (1999) advised that "it is important that organizations have appropriate policies for testing either applicants or current employees". Such policies need to involve (1) informed consent, (2) scheduling, (3) assurance of test validity, and (4) confidentiality. Such screening is likely to increase because drug use continues to be a problem for the larger society and the liability associated with having an employee under the influence of drugs is a cost companies are expected to bear.

Psychological Health

The employer's responsibility for the psychological well-being of employees has been addressed mainly by case law rather than by formal regulation. Novit (1982), maintained that employers are sometimes held responsible for mental and psychological distress that is work related, just as they are for on-the-job physical injury. Also, psychological health of employees may be affected by many work-related circumstances. Being a victim of workplace violence is currently one of the most drastic examples of intense psychological strain. However, there are many less dramatic forms of psychological stress that employees face in their workplace.

Various courts have established four categories of on-the-job stress for which individuals may be allowed to file for workers' compensation (Berkeley, 1981). (1) This category involves mental stimuli from the job that result in a physical illness, for example, when consistent stress causes a heart attack. (2) This category consists of physical stimuli on the job that result in a psychological illness, for example, a work injury that causes anxiety so severe that the employee cannot go back to work. (3) This category covers situations in which a mental stimuli on the job causes psychological illness. Example, would be a person who suffers from depression and loss of self-esteem because of on-the-job stress and consequently is unable to perform his or her job. (4) This category relates to a slightly different pattern of circumstances. The courts have maintained that individuals may obtain damage awards when they experience distress due to intentional or reckless acts of the employer that degrade or humiliate the employee. This principle may cover a wide range of possible actions, including external harassment (Faley, 1982). The employers have to be aware of their potential liabilities for stress related illnesses , as well as the loss in employee productivity that can occur when workers are

overstressed for a longer period. However, conscientious employers try to keep workplace stressors such as overwork, harassment, conflict, and bad supervision at bay. An increasing number of employers use more formal programmes to mitigate employee stress and health problems in the form of employee assistance plans and employee wellness programmes.

Management's Proactive Role in Safety and Health

In meeting the health and safety of its employees, management may take either a minimalist or more proactive role. In the issue of minimalist approach in "safety and health", management complies with the legal requirements placed upon it by the "Occupational Safety and Health Act" and other state and federal regulations (Falay, 1982). For example, the Occupational Safety and Health Act outlines a set of employer responsibilities for the health and safety of employees (Joanne, 1999). These responsibilities fall within three areas: (1) providing a safe workplace for employees, (2) informing and training employees with health and safety issues, and (3) complying with specific regulations or directives of OSHA. List of these employer responsibilities are demonstrated in table 1.

Table 2: Responsibilities of an Employer Under the Occupational Safety and Health Act

Providing a safe work environment

- Meet general duty to provide a workplace free from recognized hazards.
- Evaluate workplace conditions.
- Make sure employees have and use safe, properly maintained tools and equipment (including Appropriate Personal Protect Equipment "APPE")
- Establish or update operating procedures and communicate them to employees.
- Minimize or eliminate potential hazards.

Informing and training employees about safety and health issues

- Keep workers informed about OSHA and safety and health matters with which they are involved
- Communicate operating procedures to employees.
- Make copies of safety and health standards available to employees for review upon request.
- Warn employees of potential hazards.

- Provide training required by OSHA standards.
- Post a copy of the OSHA 200-Log and Summary of Occupational injuries and illness for the prior year each year during the entire month of February unless otherwise specified.
- Post, at a prominent location within the workplace, specific OSHA information that informs employees of their rights and responsibilities.

Complying with specific safety and health regulations and directives

- Be familiar with mandatory OSHA standards.
- Comply in a responsible manner with standards, rules, and regulation issued under the Occupational Safety and Health Act.
- Report within eight hours any accident that results in a fatality or the hospitalization of three or more employees.
- Keep OSHA required records of work-related injuries and illness, unless otherwise specified.
- Provide access to employee medical records and exposure records.
- Cooperate with OSHA compliance officers.
- Do not discriminate against employees who properly exercise their rights under the Occupation Safety and Health Act.
- Post OSHA citations and abatement verification notices at or near the worksite involved.
- Abate (i.e. correct) cited violations within the prescribed period.

Source: Adapted from U. S. Department of Labour, Occupational Safety and Health Administration, "All About OSHA" OSHA 2056, 2000 (Revised) p.10, (Available at http://wwwosha-sic.gov/SLTC/smallbusiness/secl.html)

To meet OSHA requirements, all employers must have some safety rules. But, many organizations go well beyond these minimal requirements with a more proactive approach to safety and health. In organizations, health and safety programmes are based on a strategic human resource philosophy; that is, that workers represent a valued asset of the company and a significant source of the organization's competitive advantage (Faley 1982). On this sense, safety and health issues and programmes designed to deal effectively with them become a way for firms to protect one of the organization's most valuable competitive assets, that is, its people (Joanne 1999). Research has noted that there are a number of characteristics that seem to distinguish successful, proactive programmes and all

the rest. To make sure that these characteristics exist in their safety and health programmes, Susan (1998) observed that management must play five key roles.

1. **Leading from the Front:** The role is important for the management. Human resource managers must take the initiative in safety and health issues. Employees must see managers in the entire organization as proactive rather than reactive. If top management pays only lip service to safety, workers will follow this lead and regard safety policies as unimportant. As parts of management's leadership role, managers must accept accountability for the results of safety and health programmes.

2. **Involving Workers:** Involving workers in the development of safety and health programmes is the second key role of management. Doing so will improve the overall quality of safety and health programmes because workers who work at the coal face are most likely to understand the nature of work hazards and their possible solutions (Peter and James, 1997). Also, Canehan (1974) opined that "one of the most common and effective strategies for involving employees is the use of company safety committee as consisting of management and non-management employees". These committees identify safety hazard through self-inspections, statistical analyses, and employee input. Typically, they also attempt to find solutions to hazards that have been indentified or suggest that experts be hired to resolve a problem. Figure 2 shows part of a hazard analysis for the task of grinding castings.

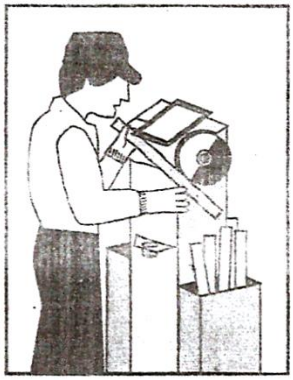
Figure 2: Job Hazard Analysis
Source: Job Hazard Analysis, Occupational Health and Safety Administation Publication No 3071, 1998 (revised). (Availableat: http://www.osha.gov/ Publications/osha3071.pdf)

(a) **Grinding Castings: Job Steps**

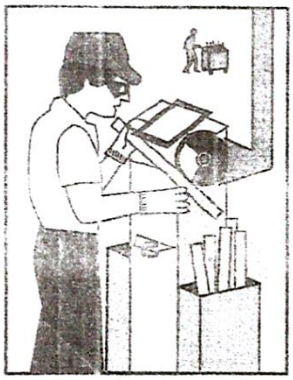
1. Research into metal box to right of machine, grash casting, and carry to wheel

2. Push casting against wheel to grind off burr.

3. Place finished casting in box to left of machine





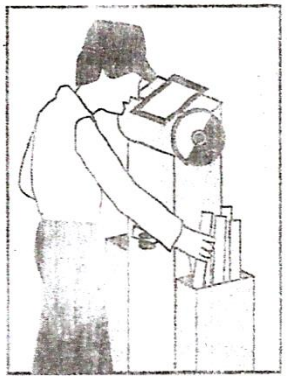


(b) **Grinding Castings: Hazards**

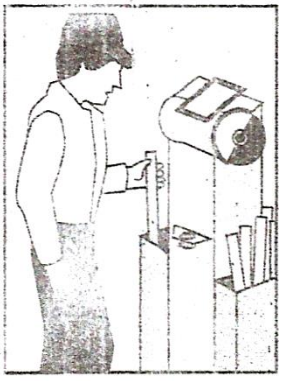
1. Strike hand on edge of metal box or casting: cut hand on burr, drop casting on toes.

2. Strike hand against wheel: flying sparks, dust or chips; wheel breakage; wheel not guarded; no dust removal; sleeves could get caught in machinery

3. Strike hand against metal box or castings.







(c) Grinding Castings: New Procedure or Protection

1. Provide gloves and safety shoes.
2. Provide larger guard over wheel and safety goggles; install local exhaust system; instruct worker to wear short or tight-fitting sleeves.
3. Provide for removal of completed stock.

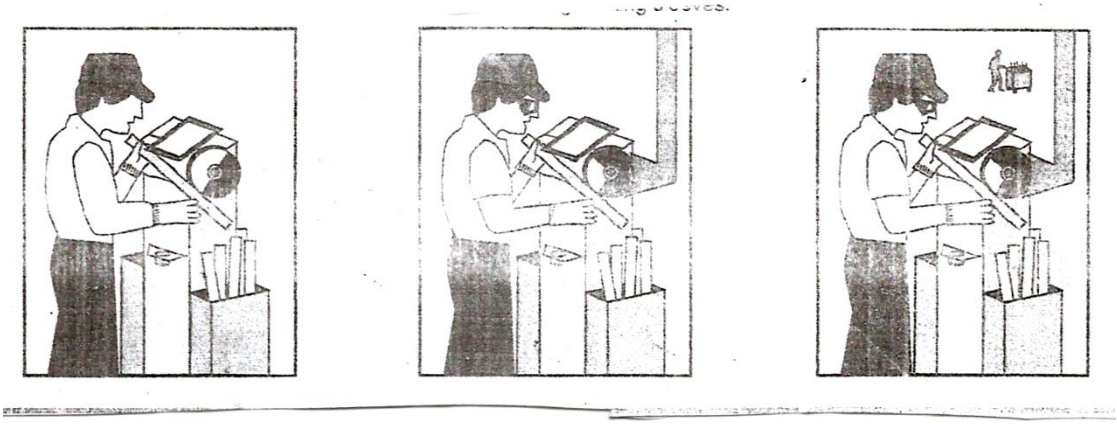


Table 3 demonstrate example of potential hazards in grinding castings, the causes of those hazards, and possible remedies to reduce or remove the hazards.

Table 3: Sample Job Hazard Analysis: Grinding Casting

	Step	Hazard	Cause	Preventive measure
1	Reach into right box and select casting	Strike hand on wheel Tear hand on corner of casters	Box is located beneath wheel Corners of casters are sharp	Relocate box to side of wheel Require wearing of leather gloves

2	Grasp casting, lift and position	Strain shoulders/elbow by lifting with elbow extended Drop casting on toe during positioning.	Box too hand Slips from hand	Place box on pallet Require wearing of safety shoes
3	Push casting against wheel and grind burr	Strike hand against wheel Wheel explodes Flying sparks/chips Respirable dust Sleeves caught in machinery	Wheel guard is too small Incorrect wheel installed Cracked wheel Wheel friction with caster Dust from caster metal and wheel material Loose sleeves	Provide larger guard Check rpm rating of wheel Inspect wheel for cracks Require wearing of eye goggles Provide local exhaust system Provide bands to retain sleeves
4	Place finished casting into box	Strike hand casting	Buildup of completed stock	Remove completed stock routinely

Source: Job Hazard Analysis, occupational Health and Safety Administration Publication No. 3071, 1998 (Revised), p. 9.

Safety committees also arrange for training, seminars and other activities to increase employee awareness of safety.

3. **Analyzing Data:** The third major role of management is to ensure that a thorough analysis of the health and safety environment in the workplace is undertaken. Not doing this may lead an organization to solve the wrong problem.

4. **Motivating Safe Bheaviour:** Most employees know how to use safety devices and protective equipment properly. However, a significant problem for an organization is to motivate employees to follow safety rules on a daily basis. According to William (1999) at least five different approaches are being used by organizations to motivate employees to work safety.

1. Programmes that reward results.
2. Programmes that recognize results.
3. Programmes that reward behaviours.
4. Programmes that recognize behaviours.
5. Programmes that focus on expecting behaviour

William (1999) said "there is no definitive evidence that one type of programme is superior to the others. That one of the major problems with rewarding or recognizing results is that this may lead employees to hide or underreport health and safety problems". Programmes that focus on behaviour rather than results should avoid this problem. Proponents of the "expecting-behaviours" approach to motivating safety in the workplace argue that external rewards or recognition should not be necessary because safety and health have intrinsic value to employees. These are obviously financial and administrative advantages to these programmes relative to systems in which results or behaviours have to be closely monitored and rewarded or recognized (Willaim 1999).

5. **Innovation:** A key role for management is to be creative in its approach to safety and health programmes. Such innovation is likely to be enhanced when management and employee work together on common problems (Sharon, 1986). The roles that are described above will help ensure that programmes designed to enhance workplace safety and health will be successful. Organizations in which management takes on these five roles in relation to occupational safety and health will receive numerous benefits.

Conclusions

In meeting the health and safety needs of its employees, management may take either a minimalist or more proactive stance. Proactive approaches to safety and health require management to lead from the front, involve employees in programme design and implementation, carefully analyze data related to safety and health problems, motivate workers to behave sofety and be innovative in its approach to workplace safety and health. The Occupational Safety and Health Administration focuses on several aspects of workplace safety and health. Among the most prominent of these are on-the-job injuries, exposure to hazardous chemicals, injuries or death due to workplace violence, and a broad range of occupational diseases. Employers also bear the responsibility for a variety of other issues related to employees' health on the job, AIDs, fetal protection from occupational hazards, drug use on the job, and employee psychological health are among the issues that concerns management in modern organizations. However, there are three reasons why organizations try to create a safety and healthy work environment for their employees. The first reason is altruism; that is, the organization genuinely cares for its members. The second is the financial and nonfinancial benefits for the organization; lower absenteeism and turnover; higher productivity, reduced insurance rates, improved employee morale, and enhanced appeal to job applicants. The third reason is compliance with federal, state, and local regulations. Violations of health and safety laws can mean large fines, bad publicity, and even jail sentences for top managers.

Recommendations

The work recommend the following based on the literature reviewed and conclusions.

1. Management of an organization should ensure that employees comply with all applicable Occupational Safety and Health Act standards, follow all safety and health rules and regulations, and reporting hazardous conditions to the supervisor.
2. Management of an organization should also take into consideration on-the-job injuries, exposure to hazardous chemicals, injuries or death due to workplace violence, and a broad range of occupational diseases in administration of employees safety and health issues.

3. Human resource managers should take the initiative in safety and health issues.
4. Workers should be involved in the development of safety and health programmes.
5. Management should undertake through analysis of the health and safety environment in the workplace.
6. Organizations should significantly motivate employees to follow rules on a daily basis. This can be done by rewarding results, recognizing results, rewarding behaviours, and recognizing behaviour.
7. Management should be creative in its approach to safety and health programmes. This can be effective when management and employees work together to on common problems.

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