JSA Audits Inspections Quiz

QUESTION

What are the ‘two tools’ that can be used to identify problems/hazards before these conditions result in harm’

ANSWER

- Inspection of work areas.
- Audits of safety programs.

WHY IS IT RIGHT

JOB SAFETY ANALYSIS (JSA) / JOB HAZARD ANALYSIS (JHA)

A job safety analysis (**JSA**) is a procedure which helps integrate accepted safety and health principles and practices into a particular task or job operation. In a **JSA**, each basic step of the job is to identify potential hazards and to recommend the safest way to do the job. Other terms used to describe this procedure are job hazard analysis (**JHA**) and job hazard breakdown.

Inspection of work areas and audits of safety programs are tools that can be used to identify problems and hazards before these conditions result in accidents or injuries. Audits also help to identify the effectiveness of safety program management and can be used as a guide to assure regulatory compliance and a safe workplace.

A job safety analysis (**JSA**), also called a job hazard analysis or job task analysis (**JHA**), is a systematic analysis of a

specific job in a specific location to identify the hazards and determine the controls. By completing a **JSA**, you ensure that you have properly planned the work and that workers can do it safely. As a written document, it can serve as evidence of due diligence.

JOBS APPROPRIATE FOR JSA OR JHA

A JSA can be conducted on many jobs in your workplace but priority should go to the types of jobs that have:

1. Highest injury or illness rates;
2. Potential to cause severe or disabling injuries or illness, even if there is no history of previous accidents;
3. Simple human error which could lead to a severe accident or injury;
4. Undergone changes in processes and procedures; and
5. Complexity enough to require written instructions

THE ESSENTIAL FACTORS IN THE DETERMINATION OF SETTING OR PRIORITY FOR JSA/JHA

- Accident frequency and severity: jobs where accidents occur frequently or where they occur infrequently but result in serious injuries.
- Potential for severe injuries or illnesses: the consequences of an accident, hazardous condition, or exposure to harmful products are potentially severe.
- Newly established jobs: due to lack of experience in these jobs, hazards may not be evident or anticipated.
- Modified jobs: new hazards may be associated with changes in job procedures.
- Infrequently performed jobs: workers may be at greater risk when undertaking non-routine jobs, and a JSA provides a means of reviewing hazards.
- Inspections are a key part of good health and safety management. They allow you to check that your workplace

and work activities are healthy and safe. Workplace inspections help prevent incidents, injuries and illnesses.

BENEFITS OF DOING A JOB SAFETY ANALYSIS

One of the methods is to observe a worker actually perform the job. The major advantages of this method include that it does not rely on individual memory and that observing or performing the process prompts the recognition of hazards. For infrequently performed or new jobs, observation may not be practical.

One approach is to have a group of experienced workers and supervisors complete the analysis through discussion. An advantage of this method is that more people are involved in a wider base of experience and promoting a more ready acceptance of the resulting work procedure. Members of the health and safety committee must also participate in this process.

Initial benefits from developing a JSA will become clear in the preparation stage. The analysis process may identify previously undetected hazards and increase the job knowledge of those participating. Safety and health awareness is raised, communication between workers and supervisors is improved, and acceptance of safe work procedures is promoted.

A JSA, or better still, a written work procedure based on it, can form the basis for regular contact between supervisors and workers. It can serve as a teaching aid for initial job training and as a briefing guide for infrequent jobs. It may be used as a standard for health and safety inspections or observations. In particular, a JSA will assist in completing comprehensive accident investigations.

WHY IS EVERYTHING ELSE WRONG

FOUR BASIC STEPS

- select the job to be analyzed
- break the job down into a sequence of steps
- identify potential hazards
- determine preventive measures to overcome these hazards

The Basic Steps in Practice

- A job step is defined as a segment of the operation necessary to advance the work.

Care must be taken not to make the steps too general. Missing specific steps and their associated hazards will not help. On the other hand, if they are too detailed, there will be too many steps. A rule of thumb is that most jobs can be described in less than ten steps. If more steps are required, you might want to divide the job into two segments, each with its separate JSA, or combine steps where appropriate. As an example, the job of changing a flat tire will be used in this document.

- An important point to remember is to keep the steps in their correct sequence. Any step which is out of order may miss serious potential hazards or introduce hazards which do not actually exist.

Each step is recorded in sequence. Make notes about what is done rather than how it is done. Each item is started with an action verb.

This part of the analysis is usually prepared by knowing or watching a worker do the job. The observer is normally the immediate supervisor. However, a more thorough analysis often happens by having another person, preferably a member of the health and safety committee, participate in the observation.

- The job observer should have experienced and be capable in all parts of the job. To strengthen full co-operation and participation, the reason for the exercise must be clearly explained. The JSA is neither a time and motion

study in disguise, nor an attempt to uncover individual unsafe acts. The job, not the individual, is being studied in an effort to make it safer by identifying hazards and making modifications to eliminate or reduce them. The worker's experience contributes in making job and safety improvements.

The job should be observed during normal times and situations. For example, if a job is routinely done only at night, the JSA review should also be done at night. Similarly, only regular tools and equipment should be used. The only difference from normal operations is the fact that the worker is being observed.

SAFETY PROGRAM AUDITS

Employee knowledge ' OSHA standards require "effective training" – an effective program ensures that employees have the knowledge required to operate in a safe manner on a daily basis. The level of knowledge required depends on the specific activities in which the employee is involved and their specific duties and responsibilities. Generally, managers and supervisors should have a higher level of knowledge than general employees. This includes practical knowledge of program administration, management and training. They should be able to discuss all elements of each program that affects their assigned employees. Many programs divide employees into these two groups- authorized employees and affected employees. Authorized employees must have a high level of working knowledge involving hazard identification and hazard control procedures. Determining employee level of knowledge can be achieved though written quizzes, formal interviews or informal questions in the workplace.

Written Program Review – during the safety audit, a comprehensive review of the written program should be conducted. This review should compare the company program to requirements for hazard identification and control, required

employee training and record keeping against the local, state and federal requirements. Additionally, if applicable, the company insurance carrier should be asked to conduct an independent written program review.

Program Administration – This part of the safety audit review checks the implementation and management of specific program requirements. This section asks these and other similar questions:

- Is there a person assigned and trained to manage the program'
- Are specific duties and responsibilities assigned'
- Are sufficient assets provided'
- Is there an effective and on-going employee training program'

Record & Document Review – Missing or incomplete documents or records is a good indication that a program that is not working as designed. Records are the company's only means of proving that specific regulatory requirements have been met. Record review also includes a look at the results, recommendations and corrective actions from the last program audit.

Equipment and Material – This area of a safety audit inspects the material condition and applicability of the equipment for hazard control in a specific program. Examples of audit questions for this area are:

- Is the equipment in a safe condition'
- Is there adequate equipment to conduct tasks safely'
- Is personal protective equipment used and stored properly'
- Is equipment, such as exit lights, emergency lights, fire extinguishers, material storage and handling equipment designed and staged to control hazards effectively'

General Area Walk-Through – While safety audits are not designed to be comprehensive physical wall-to-wall facility inspections, a general walk-though of work areas can provide additional insight into the effectiveness of safety programs. Auditors should take written notes of unsafe conditions and unsafe acts observed during the walk-through.

POTENTIAL HAZARDS IDENTIFIED

Once the basic steps have been recorded, potential hazards must be identified at each step. Based on observations of the job, knowledge of accident and injury causes, and personal experience, list the things that could go wrong at each step.

To help identify potential hazards, the job analyst may use the following questions:

- Can any body part get caught in or between objects'
- Do tools, machines, or equipment present any hazards'
- Can the worker make harmful contact with moving objects'
- Can the worker slip, trip, or fall'
- Can the worker suffer strain from lifting, pushing, or pulling'
- Is the worker exposed to extreme heat or cold'
- Is excessive noise or vibration a problem'
- Is there a danger from falling objects'
- Is lighting a problem'
- Can weather conditions affect safety'
- Is harmful radiation a possibility'
- Can contact be made with hot, toxic, or caustic products'
- Are there dusts, fumes, mists, or vapours in the air'

PREVENTION

The final step in the JSA/JHA is to eliminate or control the hazards identified. The measures, in order of preference, are:

1. Eliminate the hazard

Elimination is the most effective measure. These techniques should be used to eliminate the hazards:

- Choose a different process
- Modify an existing process
- Substitute with less hazardous product
- Improve environment (e.g., ventilation)
- Modify or change equipment or tools

OSHA Regulations

The requirements for personal protective equipment for General Industry are contained in 29 CFR Part 1910.132. In this context, personal protective equipment refers to head, eye and face, respiratory, body, hand and foot protection. Personal protective equipment for construction, shipbuilding, longshoring and other distinctly regulated sectors are covered in those sector regulations. Hearing protection, fall protection and other special types of personal protective equipment are covered under other sections of OSHA standards. The General Industry section of the OSHA regulation states, in part:

“The employer shall assess the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of personal protective equipment (PPE).”

“The employer shall verify that the required workplace hazard assessment has been performed through a written certification that identifies the workplace evaluated; the person certifying that the evaluation has been performed; the dates(s) of the hazard assessment; and which identifies the document as a certification of hazard assessment.”

OSHA requires a written certification that the hazard assessment has been performed. However, there is no requirement that the hazard assessment itself be in writing. Most professionals would suggest that written documentation of the actual assessment, although not literally required, would

be a best practice.

2. Contain the hazard

If the hazard cannot be eliminated, contact might be prevented by using enclosures, machine guards, worker booths or similar devices.

3. Revise work procedures

Consideration might be given to modifying steps which are hazardous, changing the sequence of steps, or adding additional steps (such as locking out energy sources).

4. Reduce the exposure

These measures are the least effective and should only be used if no other solutions are possible. One way of minimizing exposure is to reduce the number of times the hazard is encountered. An example would be modifying machinery so that less maintenance is necessary. The use of appropriate personal protective equipment may be required. To reduce the severity of an incident, emergency facilities, such as eyewash stations, may need to be provided.