**SECTION VIII – SAFETY**

**A. WORKPLACE SAFETY**

*\*The city may adopt a separate Safety Manual\**

Workplace safety is every employee's responsibility. The City Manager and Department Heads are responsible in making sure all safety procedures are followed and to report any issues. As such, they are responsible for the City's compliance with state and federal safety guidelines by:

1. Recommending equipment that allows performance of assigned work to be done in a safe manner.
2. Eliminating known hazardous conditions at city worksites.
3. Suggesting and approving training in accident prevention.
4. Establishing safe conduct rules for employees while on duty.

Employees are responsible for:

1. Following prescribed safety rules which are provided for their benefit.
2. Use all safety equipment and devices provided by the City.
3. Identify safety problems with working conditions or equipment and report them to their supervisors. Failure to report unsafe conditions or equipment may result in discipline up to and including termination of employment. (Note: The City is an At-Will employer).
4. Working in a safe and responsible manner.
5. Immediately report an accident to the City's Safety Director and, when injuries result, to the Workers' Comp Clerk and complete appropriate paperwork.

The City's Safety Coordinator is responsible for reporting and complying with OSHA and TOSHA and other safety regulatory agencies. At the time this manual was written the City Safety Coordinator is the Director of Parks and Recreation Department.

**Reporting On-the-Job Accidents and Injuries**

Any employee involved in an accident or injury on the job, however slight shall immediately report the incident to his or her supervisor, Department Head, the City Safety Coordinator and the Clerk responsible for reporting to the city insurance agent, The Pool. Failure to properly report these incidents may result in disciplinary action up to and including termination. (Note: The City is an At-Will employer).

**Emergency Medical Treatment**

If an employee is injured to the extent that emergency medical treatment is required, the employee will be transported immediately to a local health care provider or ER facility for treatment (chosen from the panel of providers).

**Completion of Accident Report**

The employee will immediately complete an Employee's Report of Injury/Accident through his/her supervisor and coordinate this report with the Clerk responsible for reporting to the City's insurance agent (The Pool). Failure of the employee to properly complete the report may result in disciplinary action up to and including termination of employment. (Note: The City is an At-Will employer).

**Reporting Vehicle or Equipment Accidents or Damage**

All municipal employees that operate a municipal vehicle or a piece of equipment shall immediately report to their supervisor or department head any vehicle or equipment, accidents, or damage incurred while operating this equipment and shall remain at the scene. An incident/crash report is required for all accident to be completed by law enforcement. An accident involving the City of Kingston Police Department may require the report from another law enforcement agency. The employee will complete an accident report that describes in sufficient detail how the accident occurred. The supervisor or department head will conduct an investigation of the accident and complete a report. These reports must be forwarded to the safety coordinator and the City Manager within 24 hours.

Failure to report an accident or damage to equipment, regardless of fault or severity of the damage, will be subject to disciplinary action up to and including termination of employment. (Note: The City is an At-Will employer).

**Damage to Third Party or Other Private or Public Property**

In the event an accident or damage incurred involves another party or damage to private property or another public property, the employee is to request an officer from the Police Department or other appropriate law enforcement authority, to complete an accident report that describes the accident in sufficient detail. The employee will also complete a report that describes the incident. The supervisor or department head will conduct an investigation of the incident and complete a damage investigation report. These reports must be forwarded to the Safety Coordinator and the City Manager within 24 hours.

**Employee Negligence While Operating a Vehicle or Equipment**

After investigation of an accident, if it can be demonstrated the employee operating the vehicle or equipment was negligent during operation or in violation of vehicle regulations, operational safety rules, department guidelines or city policy, the employee may be subject to disciplinary action or termination of employment. Note: The City is an At-Will employer.

**B. JOB SAFETY ANALYSIS**

**What is a Job Safety Analysis?**

One way to increase the knowledge of hazards in the workplace is to conduct a Job Safety Analysis (JSA) on individual tasks. A JSA is a procedure, which helps integrate accepted safety and health principles and practices into a particular operation. In an assessment, each basic step of the job is examined to identify potential hazards and to determine the safest way to do the job. Other terms used to describe this procedure are *Job Hazard Assessment* and *Job Hazard Analysis*.

The terms "job" and "task" are commonly used interchangeably to mean a specific work assignment, such as "operating a grinder," "using a pressurized water extinguisher," or "changing a flat tire." Job safety analysis are not suitable for jobs defined too broadly, for example, "overhauling an engine"; or too narrowly, for example, "positioning car jack."

**What are the benefits of doing a JSA?**

The method used in this example is to observe a worker actually performing the job. The major advantages of this method conclude that it does not rely on individual memory and that the process prompts recognition of hazards. For infrequently performed or new jobs, observation may not be practical. With these, 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 allowing for a wider base of experience and promoting a more ready acceptance of the resulting work procedure. Members of the safety and health committee should participate in this process.

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

The completed JSA, or better still, a written work procedure based on 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 and it will assist in completing comprehensive accident investigations.

**What are the four basic steps?**

Four basic stages in conducting a JSA are:

* selecting the job to be analyzed
* breaking the job down into a sequence of steps
* identifying potential hazards
* determining preventive measures to overcome these hazards

**What is important to know when "selecting the job"?**

Ideally, all jobs should be subjected to a job safety analysis. In some cases there are practical constraints posed by the amount of time and effort required to do each JSA. Another consideration is that each JSA will require revision whenever equipment, raw materials, processes, or the environment change. For these reasons, it is usually necessary to identify which jobs are to be assessed. Even if a JSA for all jobs is planned, this step ensures that the most critical jobs are examined first.

Factors to be considered in assigning a priority for assessment of jobs include:

* *Accident frequency and severity:* jobs where accidents occur frequently or where they occur infrequently but result in disabling injuries.
* *Potential for severe injuries or illnesses:* the consequences of an accident, hazardous condition, or exposure to harmful substance 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.

**How do I break the job into "basic steps"?**

After a job has been chosen for analysis, the next stage is to break the job into steps. 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, thereby missing specific steps and their associated hazards. 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 job safety analysis, 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 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. Job steps are recorded in the left-hand column, as shown below:

|  |  |  |
| --- | --- | --- |
| **Sequence of Steps** | **Potential Accidents or Hazards** | **Preventive Measures** |
| Park vehicle |  |  |
| Remove spare and tool kit |  |  |
| Pry off hubcap and loosen lug bolts (nuts). |  |  |
| And so on..... |  |  |

This part of the assessment is usually prepared by watching the worker do the job.

The worker to be observed should be experienced and capable in all parts of the job. To strengthen full cooperation and participation, the reason for the exercise must be clearly explained. 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 can be important in making improvements.

The job should be observed during normal times and situations. For example, if a job is routinely done only at night, the safety analysis 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.

When completed, the breakdown of steps should be discussed by all the participants (always including the worker) to make sure that all basic steps have been noted and are in the correct order.

**How do I "identify potential hazards"?**

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.

A second observation of the job being performed may be needed. Since the basic steps have already been recorded, more attention can now be focused on potential hazards. At this stage, no attempt is made to solve any problems, which may have been detected.

To help identify potential hazards, the individual conducting the JSA may use questions such as these (this is not a complete list):

* 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 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 substances?
* Are there dusts, fumes, mists, or vapors in the air?
* Is sun exposure an issue?

Potential hazards are listed in the middle column of the worksheet, numbered to match the corresponding job step. For example:

|  |  |  |
| --- | --- | --- |
| **Sequence of Steps** | **Potential Accidents or Hazards** | **Preventive Measures** |
| Park vehicle | a) Vehicle too close to passing traffic b) Vehicle on uneven, soft ground c) Vehicle may roll. |  |
| Remove spare and tool kit | a) Strain from lifting spare. |  |
| Pry off hubcap and loosen lug bolts (nuts). | a) Hub cap may pop off and hit you b) Lug wrench may slip |  |
| And so on..... | a) ... |  |

Again, all participants should jointly review this part of the assessment.

**How do I "determine preventive measures?"**

The final stage in a JSA is to determine ways to eliminate or control the hazards identified. The generally accepted measures, in order of preference, are:

**1. Eliminate the hazard**

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

1. Choose a different process
2. Modify an existing process
3. Substitute with less hazardous substance
4. Improve environment (ventilation)
5. Modify or change equipment or tools

**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 accident, emergency facilities, such as eyewash stations, may need to be provided.

In listing the preventive measures, use of general statements such as "be careful" or "use caution" should be avoided. Specific statements, which describe both what action is to be taken and how it is to be performed, are preferable. The recommended measures are listed in the right hand column of the worksheet, numbered to match the hazard in question. For example:

|  |  |  |
| --- | --- | --- |
| **Sequence of Steps** | **Potential Accidents or Hazards** | **Preventive Measures** |
| Park vehicle | a) Vehicle too close to passing traffic b) Vehicle on uneven, soft ground c) Vehicle may roll. | a) Drive to area well clear of traffic. Turn on emergency flashers b)Choose a firm, level area c) Apply the parking brake; leave transmission in gear or in PARK; place blocks in front and back of the wheel diagonally opposite to the flat  |
| Remove spare and tool kit | a) Strain from lifting spare. | a) Turn spare into upright position in the wheel well. Using your legs and standing as close as possible, lift spare out of truck and roll to flat tire. |
| Pry off hubcap and loosen lug bolts (nuts). | a) Hub cap may pop off and hit you b) Lug wrench may slip | a) Pry off hub cap using steady pressure b) Use proper lug wrench; apply steady pressure slowly. |
| And so on..... | a)... | a)... |

**How should I make the information available to everyone else?**

JSA is a useful technique for identifying hazards so that measures can be taken to eliminate or control them. Once the JSA is completed, the results must be communicated to all workers who are, or will be, performing that job. The side-by-side format used in JSA Worksheets is not an ideal one for instructional purposes. Better results can be achieved by using a narrative-style format. For example, the work procedure based on the Partial Job Safety Analysis developed as an example in this document might start out like this:

**1. Park vehicle.**

1. Drive vehicle off the road to an area well clear of traffic, even if it requires rolling on a flat tire. Turn on the emergency flashers to alert passing drivers so that they will not hit you.
2. Choose a firm, level area so that you can jack up the vehicle without it rolling.
3. Apply the parking brake, leave the transmission in gear or PARK, place blocks in front and back of the wheel diagonally opposite the flat. These actions will also help prevent the vehicle from rolling.

**2. Remove spare and tool kit.**

1. To avoid back strain, turn the spare up into an upright position in its well. Stand as close to the trunk as possible and slide the spare close to your body. Lift out and roll to flat tire.

**3. Pry off hubcap; loosen lug bolts (nuts).**

1. Pry off hubcap slowly with steady pressure to prevent it from popping off and striking you.
2. Using the proper lug wrench, apply steady pressure slowly to loosen the lug bolts (nuts) so that the wrench will not slip and hurt your knuckles.
3. **And so on.**

|  |
| --- |
| **Job Safety Analysis Worksheet** |
| Job: |
| Analysis By: | Reviewed By: | Approved By: |
| Date: | Date: | Date: |
| **Sequence of Steps** | **Potential Accidents or Hazards** | **Preventative Measures** |
|  |  |  |