SASKATCHEWAN ASSOCIATION FOR

SAFE WORKPLACES

IN HEALTH

Incident Reporting and Investigation

Getting to the Root Cause

Sample risk matrix, roles, forms, checklists and applicable legislation

Workplace health and safety:
a priority for all.

The sample forms provided in this resource are excerpts from the Ministry of Labour Relations and Workplace Safety's resource *Accident Investigations: A Guide for Committees and Representatives*. This guide is available at the Ministry's website - www.lrws.gov.sk.ca.

These sample forms are also available on SASWH's website (www.saswh.ca) under *Programs and Services* (Investigations). Sample policies are also available.

References to legislation, applicable to investigations, are excerpts from Saskatchewan's occupational health and safety legislation. The *Saskatchewan Employment Act* and *The Occupational Health and Safety Regulations, 1996* are available in pdf format on the Ministry's website or by ordering a printed copy through:

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Definitions

Accident:

- Not defined in legislation
- An unwanted, unplanned event that results in a loss (production, property or human); *SASWH SMS Standards 2012*

Dangerous Occurrence:

- Defined in Regulation 9
- Basically, any incident that could have injured, hospitalized or caused the death of a worker, but didn't

Incident:

- Not defined in legislation
- An unwanted, unplanned event that results in or could have resulted in a loss (production, property or human); *SASWH SMS Standards 2012*
- Often also refers to a near miss

Reasons for Investigating

- The Law: the Saskatchewan OH&S Regulations require the employer to investigate certain accidents
- Prevention: determine the root cause and make recommendations for corrective actions
- Due Diligence: take all reasonable precautions, under the particular circumstances, to prevent injuries or incidents
- Demonstrate Commitment: show management's commitment to the health and safety of staff
- Best Practice: SASWH Safety Management System (SMS) Standards 5.1 and 5.2 requirement
- Hazard Identification and Control: identify trends and hazards

SMS Reporting and Investigation Standard

SASWH SMS Standard 5.1

- There must be reporting processes for:
  - Hazards/concerns
  - Incidents
  - Property/equipment damages
  - Near misses
- Employees must know how to report
- Managers must encourage employees to say something when they see unsafe conditions/behaviours
- Managers must stop work if the task is unsafe
- Corrective actions to address reported hazards/concerns must be identified
- Corrective actions to address reported hazards/concerns must be implemented
- There must be defined processes for reporting to regulators

SASWH SMS Standard 5.2

- There must be defined investigation processes that assign responsibilities
- Investigations must be conducted for:
  - Hazards/concerns
  - Incidents
  - Property/equipment damages
  - Near misses
- The OHC must investigate:
  - Serious accidents
  - Dangerous occurrences
  - Work refusals
- Employees must be trained
- Corrective actions must be prioritized according to risk
- Corrective actions must be implemented by the target dates
- Results of investigations must be communicated
- A standardized incident investigation form must be used

Elements of an Effective Reporting & Investigation Program

- Policy statement
  - responsibilities

- Incident reporting process
  - what, when how, to who, why
  - record keeping and statistics

- Root cause investigation process
  - what who, when how, why

- Reporting and follow-up

- Training

Preplanning will help address situations in a timely manner, reducing the chance for evidence to be lost and witnesses to forget. All procedures, forms, notifications, etc., need to be listed out as step-by-step procedures. An effective program must:

- contain a policy and process for reporting and investigating incidents is required to ensure root causes are identified and that the necessary corrective actions are identified and put in place;
- ensure all staff are aware of the system in place as well as their responsibilities;
- required incidents to be reported immediately as well as who to report to and how;
- require that the incident form be filled out completely and accurately;
- require that incidents are to be investigated as soon as possible after the incident and by whom;
- require that incident investigations be completed by trained personnel;
- require that root causes and contributing factors be identified and appropriate corrective actions put in place;
- include a system in place for monitoring trends;
- include a communication process so that lessons learned will be communicated as appropriate; and,
- include a system to ensure the required reporting to the Ministry of Labour Relations and Workplace Safety (LR&WS).

Roles and Responsibilities

<table>
<tr>
<td>The Employer
The employer is responsible for:
▪ ensuring that the incident investigation process is included in the SMS
▪ the effectiveness of the investigations
▪ correcting identified problems
▪ providing investigators with appropriate time, training and resources
Management/Executive
▪ monitor the incident reporting and investigation process for their respective areas of responsibility
Implementing corrective action is the employer’s responsibility</td>
<td>The Supervisor
▪ promptly initiate the investigation
▪ involve others as required as per internal procedures and external requirements
▪ ensure that appropriate control measures are implemented
▪ monitoring and evaluate the effectiveness of the controls</td>
</tr>
<tr>
<td>The Worker
▪ report all incidents as per policy
▪ completion of the incident report form
▪ cooperate during the incident investigation process
▪ participate in an incident investigation as required</td>
<td>The OHC
▪ investigate all dangerous occurrences, serious injuries and fatalities as required by OH&S legislation
▪ participate in other investigations at the request of the supervisor or as defined in the local OHC Terms of Reference
▪ review the incident reports and investigations for all incidents
▪ monitor the employer’s health and safety management system</td>
</tr>
<tr>
<td colspan="2">The Investigation Team
In most cases the supervisor should investigate the event. Other members of the team could include:
▪ employees with knowledge about the work and process involved
▪ OHC member(s) or representative
▪ other employee(s) with training in investigations
▪ the internal health and safety advisor
▪ an outside expert (e.g., ergonomist)</td>
</tr>
</table>

Benefits of Worker Involvement

- More effective investigations
- Improved credibility
- Improved acceptance of recommendations

Training
Training on reporting and investigating ensures the members of the investigating team know what to do and are able to determine the root causes of the event. Training should include how to:

- collect evidence;
- interview witnesses;
- analyze the facts; and,
- make recommendations.

Various Forms*:

- Accident Investigation Report Form
- Accident Investigation Physical Evidence Log Form
- Accident Investigation Site Sketch Form
- Accident Investigation Site Map Form
- Accident Investigation Sketch of Physical Evidence Locations and Operations Form
- Accident Investigation Photographic Log Sheet Form
- Accident Investigation Sketch of Photography Locations and Orientation Form
- Accident Investigation Interview Schedule Form
- Accident Investigation Witness Interview Form

*The *Accident Investigation Report Form* provides the supervisor or first responder with a tool to collect initial information at the accident site. This form should be provided to the OHC. To complete its investigation, the committee can use the more detailed forms found in the Appendix to the LR&WS guide entitled *Accident Investigations: A Guide for Committees and Representatives*.

Investigation Kit
Suggested contents include:

- Appropriate forms and checklists
- Floor plans, diagrams or maps of the workplace
- Camera
- Flashlight
- Emergency phone numbers and other useful contacts
- Tape measure
- Required PPE for investigating
- Pencil, pen, paper

Regulatory Requirements

Reportable Incidents

- OH&S regulations require the employer or contractor to report accidents causing serious bodily injury and dangerous occurrences to LRWS, OH&S Division
- OH&S regulations also require the employer to report any dangerous occurrences to LRWS, OH&S Division

Incident	Requirement
Accidents causing serious bodily Injury	Regulation 8
Dangerous occurrences	Regulation 9

Required Investigations

- OH&S regulations require the employer to investigate certain accidents
- OH&S regulations require the employer, contractor or owner to investigate dangerous occurrences

Incident	Requirement
Investigation of certain accidents	Regulation 29
Investigation of dangerous occurrences	Regulation 31
Investigation of violent incidents	Regulation 37
Exposure to infectious organisms	Regulation 85
Exposure to hazardous substances listed in Table 19 or 20	Regulation 311

Review Required

Incident	Requirement
Injuries requiring medical treatments	Regulation 32
Musculoskeletal injuries	Regulation 81
Patient handling and moving	Regulation 470

Incident Scenario (case study)

Familiarize yourself with the case study that will be used throughout this course.

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Investigation Techniques

Degree of Investigation

What is investigated and to what depth an investigation will go depends on a number of factors:

- Internal workplace policies – which must meet or exceed legislated requirements.
- The employer and the OHC can decide on the investigation parameters. An OHO may also request further investigation of matters.
- Risk analysis:
  - How many workers could be affected by a repeat similar occurrence?
  - Is this incident part of a trend?
  - What would the risk be to the organization and the personal impact on worker's lives of not getting to the root of the issue and preventing further occurrences?

Direct Cause

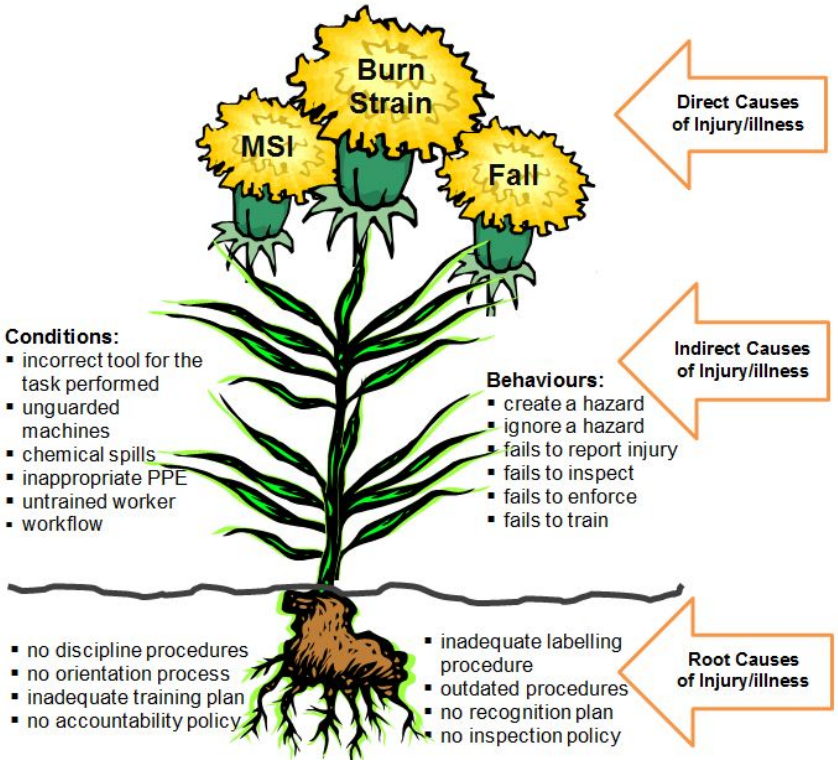
Usually happens immediately before the incident and often involves an unsafe act or substandard conditions. The following actions help to describe the direct cause:

- Caught in, on or between
- Contact with, exposure to, etc.
- Struck by
- Fall
- Repetitive task

Indirect Cause(s)

These substandard acts, procedures and conditions usually set the stage for the incident. Such as:

- Lack of training
- Departures from safe work practices
- Not following MSDS
- Using inadequate or defective equipment or materials
- Inadequate PPE



Root Cause(s)

Root causes explain why substandard acts and conditions exist. Such as:

- Inadequate training and/or orientation systems
- Inadequate inspection or preventative maintenance systems
- Inadequate supervision systems

First Things First…
Notify individuals according to the procedure

Have your investigation kit with you

Approach the scene
- Check for danger
- Ensure that anyone injured has appropriate assistance in a timely manner
- Secure the scene

Get the BIG Picture – make observations; ask broad, general questions
- What was taking place at the time of the incident?
- What happened?
- Who was involved?
- Who might have seen what happened?
- What equipment, machinery, tools, chemicals, etc. were involved?
- Are there obvious contributing factors such as liquid on the floor, known untrained/inexperienced workers training, broken equipment, damaged materials?

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C.A.R.T. Process for Investigation Success

C - Collect the Evidence
A - Analyze the Evidence
R - Report / Documentation
T - Take Action

Collect the Evidence - Physical Evidence

- Use safe collection and handling procedures, wear required PPE
- Identify, collect, label, package and store items collected
- When possible and if applicable don't remove any evidence until has been examined by the expert (manufacturer, engineer, trainer, etc.)
- Record the locations where the evidence was found
- Use notes, diagrams, sketches and photographs as appropriate

Equipment
- Any broken or altered equipment.
- Check the equipment to verify if it is damaged or broken.
- The condition of safety devices, guards and controls.
- Look to see if pieces are missing - no lock outs on meat slicers, etc.
- Did the worker have equipment needed to do the job - ladder instead of pails/chairs to stand on?

Environment
- You will want to know if there was a sudden change in the environment.
- Check the temperature. Is the temperature safe for the work being done? Is the room temperature so warm/cool that all the workers can think about is staying warm/cool? Then their minds are not on the task (Part VI General Health Requirements; regulations 64 to 85).

- Check the noise level (e.g., kitchens, laundry). (Part Vlll Noise Control and Hearing Conservation; regulations 109 to114).
- Observe the cleanliness of the accident site.
- Is there poor lighting, blind spots or poor sight lines?
- Are there chemical hazards around the incident site?
- Are there gasses or fumes in the air? Was there smoke? Look to see if the worker has breathing difficulties, or you do while you are investigating.
- Where was/is the injured worker located?

Biological substances
- Look to see if blood and body fluids are present.
- Look to see if plants are in the room.
- Look for contaminates in food or drink.
- Pollen spores and moulds can trigger a breathing reaction.
- Insects and other animals.

Chemicals
- Look to see if chemicals are involved.
- Are there gasses or fumes in the air?
- Was there smoke?
- Look to see if the worker has breathing difficulties, or you are, while investigating.
- Do you see dust or powder on the floor?
- Does the worker have chemical burns, irritated eyes, signs of untoward reaction to a foreign substance?

Ergonomic
- Work area, work flow, work procedures.
- Was there poor design of work flow or work processes?
- Were there missing or unclear instructions?
- Were poor body mechanics a factor?
- Was there a poor fit between the worker and the work area? Need to reach, stretch, work surfaces too high or too low, etc.

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Collect the Evidence - Documentation

Documentary evidence is just as important as physical evidence. It can tell you what should have happened at the time of the incident. Equipment readouts and so forth may even report what actually happened during some phases of the incident. The reasons for the difference between what should have happened and what actually happened are often the reason why the accident/incident occurred.

Standards and technical information
- Legislation, industry standards, threshold limit values (TLVs), policies, procedures, programs, JSAs, programs such as infection control or preventative maintenance, manufacturer's guidelines

Reports
- Inspection, investigation, incident, hazard, OHC inspection reports and Minutes

Records

- Training, orientation, maintenance, repair logs, shift records/hours of work, maintenance, equipment performance data

Safety Management System (SMS) documentation in general

- Anything else in the SMS that could relate to this incident

Example: Did the worker receive training? How was it delivered? Who ensured the worker followed the training? How was the worker being supervised? These questions and the answers could tell you a lot about what happened and why.

Use this principle when reviewing all documentation.

Conduct Research

Research is a tool to learn more about the physical and documentary evidence.

Benchmarking

- What are others doing?
- Have they had the same experiences?
- Have they made changes to their practices?

Technical Research

- Internet
- Journals
- Subject matter experts

Review the documentation

- This will help identify witness to be interviewed.
- This may lead to additional interviews with experts i.e. TLR trainers, doctor, lab specialist, engineer, manufacture.

Example: You may need specific information provided by the manufacturer and verified by your engineer.

Return the scene to normal as soon as possible

Once all the required evidence and information is collected:

- Ensure that the scene is returned to normal use
- Clean and disinfect the area as required
- Check equipment and materials to assess functionality
- Ensure that the incident will not be repeated

If a process or piece of equipment needs to be stopped until further examination proves its safety:

- Notify the management immediately to take action
- Have the safety of equipment, materials or process, checked by those who are technically qualified

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Collect the Evidence – Witnesses

Effective witness interviews are crucial. Plan interviews carefully and use experienced interviewers when possible. **Make it clear this is not disciplinary, but fact finding**.

Categorize witnesses - There are several categories of witnesses who could have information helpful to determining the causes of an incident:

- Eyewitnesses: those who actually saw the incident happen or were involved in the incident.
- Those who came on the scene immediately after the incident.
- Those who saw events leading to the incident.
- Those who have information about the work tasks, processes, safety devices in use, materials, equipment and other conditions involved in the incident.

Consider the expertise, background and credibility of each witness. Consider where they were when the incident occurred.

Identify who needs to be interview and their roles. Example: At the scene was Nurse Brown and housekeeper Deb:

- Identify the injured
- Identify if a patient or client was involved or was a witness
- Identify who was the first person first to come to the aid of the injured
- Look for a worker from another department that may have seen or heard something
- Look for visitors that may have been in the vicinity

Interview:

- Interview those who were involved, saw it, or were first on the scene
- Next, interview those who know what was happening before the incident
- Finally, interview others like a trainer, technical expert, other workers
- Conduct follow-up interviews as required

Effective interviews:

- Set an interview schedule - one person at a time
- Interviewing as soon as possible keeps information reliable
- Keep witnesses from talking to each other prior to their interview - this will avoid communication information versus witnessed information
- Conduct the interview in a neutral, quite place without interruptions
- Make it clear this is not disciplinary, but fact finding
- Put the person at ease
- Have basic knowledge of what happened before starting an interview
- Take detailed notes including date, names
- Number your pages - this will prevent confusion
- Record who conducted the interview, the time and the date

Develop standard questions - standard script for all interviewees. Questions that are open ended, where they cannot say yes or no - for example:

- What did you see?
- What occurred to place the employee at risk?
- Who was involved?
- What did they see and hear?
- What training did they receive?

- What tools and equipment were being used?
- What was the environment like - noisy, busy, etc.?
- What was happening prior to the incident? The shift before? (find out: was it a busy time, workers on breaks and reduced coverage?)
- What corrective action took place immediately/long term?
- What would the worker do differently?
- Who else needs to know?

Look for trending. Example: several witness answered the same on a particular question. Use physical and documentary evidence to help prepare questions.

Questioning Techniques:
- Ask questions to gain knowledge and details.
- Ask questions to clarify an observation from the scene.
- Ask open questions (not yes/no).
- Ask clarifying questions (yes/no) only to narrow down a detail.
- Pause, give the person time to answer, don't interrupt.
- Only use drawings, photos or visits to the site to jog memory.

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Analyze Incident Factors

Go through each event before, during and immediately after the incident. Ask why each happened. Evaluate the role of every factor. A good question to ask yourself during the analyzing process is - If not - why not?

People: The experience, skills and abilities, and physical and mental condition of those individuals directly involved in the event must be explored. The purpose for investigating the incident is **NOT** to establish blame against someone. The inquiry will not be complete unless personal characteristics are considered. Some factors will remain essentially constant while others may vary from day to day.

Sample questions
- Were workers aware of the standards, practices, procedures or OH&S law governing the activity?
- Were workers adequately trained, according to standards?
- What training had the workers received?
- What experience did the workers have to do the work being done?
- Were the workers being adequately and competently supervised?
- Did workers have any input into the way the task was done?
- Is the job structured to provide incentives/disincentives for pace?
- Were the workers physically able to do the work?
- Was the worker's judgment, health and/or ability impaired for any reason, such as being tired, rushed, stressed, using medication, impaired by alcohol, etc.

Material/Equipment: Seek out possible causes resulting from the materials and equipment use. Investigators might ask questions such as those below. Each time the answer reveals an unsafe condition, the investigator must ask why this situation was allowed to exist.

Sample questions
- Was there an equipment malfunction or failure?
- What caused it to fail?
- Was the equipment poorly designed?
- Was the equipment properly maintained?
- Were hazardous substances involved?
- Were they clearly identified?
- Were MSDS available?
- Was a less hazardous alternative substance possible and available?
- Was the material or equipment substandard in any way?
- Should personal protective equipment (PPE) have been used?
- Was the PPE used?
- Were users of PPE properly trained?

Environment: The physical environments, and especially sudden changes to that environment, are factors that need to be identified. The situation at the time of the incident is what is important, not what the "usual" conditions were. For example, incident investigators may want to ask questions such as those below. If the answer is yes, investigators should ask “why?”

Sample questions
- What did you notice about the housekeeping; was it clean and tidy or congested?
- Was poor housekeeping a problem?
- Did you notice loud noise or poor lighting?
- Did you look at the heating, ventilation, air conditioning system?
- Was adequate ventilation a problem?
- What were the weather conditions?
- Were weather conditions a contributing factor?
- Was it too hot or too cold?
- Was noise a problem?
- Was adequate lighting a problem?
- Did you smell anything unusual?
- Were toxic or hazardous gases, dusts, or fumes present?
- Was adequate work space a problem?
- Did the location of the equipment cause a hazard?
- Were there traffic/workflow hazards?
- Was client/patient/public aggression a factor?

Work Process/Task: Here the actual work procedure being used at the time of the incident is explored. This includes Work flow design, P&P, JSA, etc. Investigators will look for answers to questions such as those below. If the answer is no, investigators should ask “why not?”

Sample questions
- Does the task align with the P&P and the JSA?
- Was a safe work procedure used?

- Were common practices being used at the time of the incident instead of the safe work practices?
- Was the worker is trained and competent in doing the task?
- Had conditions changed to make the normal safe work practices unsafe?
- Were the appropriate tools and materials available?
- Were the appropriate tools and materials used?
- Were safety devices working properly?
- Was lockout used when necessary?
- Were required safety devices, alarms or other systems in place?

System/Management Processes: Management holds the legal responsibility for the safety of the workplace and therefore the role of supervisors and higher management and the role or presence of management systems (policies, procedures, plans, etc.) must always be considered in an incident investigation. Ask questions such as: If the answer is no, investigators should ask "why not?"

Sample questions

- Is there a safety management system in the workplace?
- Does the program have the commitment and support of top management?
- Had hazards been previously identified?
- Were the hazards which led to this incident known to supervisors?
- Were unsafe conditions corrected?
- Were there written safety rules for the task?
- Were the safety rules communicated to and understood by all employees involved?
- Were there written safe work procedures for the task?
- Were all workers involved trained to do the work including the safe work rules and procedures?
- Were the safety rules/safe work procedures being enforced?
- Was there adequate supervision?
- Was the supervisor adequately trained in health and safety?
- Was regular maintenance of equipment carried out in accordance with the manufactures guidelines?
- Were regular safety inspections carried out?
- Was the worker trained for the task?
- Was the supervisor trained for the task?
- Is there a process in place to communicate hazards and the corrective action? Follow up to see if the communication was effective.
- Is there a process in place to hold accountability for and compliance to the corrective action?

Human Error

We know that human error occurs and contributes to incidents. Our task is not to blame those who make the errors, but to look at the SMS and the workplace to determine the root organizational causes behind those errors.

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Now comes the key question: Why did it happen?

Each conclusion should be checked to see if:
- it is supported by evidence
- the evidence is direct (physical or documentary) or based on eyewitness accounts, or
- the evidence is based on assumption

Analyze Evidence
- Examine each statement and what it reveals about the incident
- Analyze physical and documentary evidence, correlate with interviews
- Consider if any substandard actions and/or conditions are factors

Identify the Causes
There is no single cause. Start linking together the evidence and incident factors to:
- Identify the direct cause
- Identify the indirect causes
- Identify the root causes (system level problems)

Make sure the investigation is focused on finding the root cause.

Identify the Direct Cause

Usually happens immediately before the incident
- The following actions help to describe the direct cause
  - Struck by
  - Fall on same level or fall to another level
  - Caught in, on, between
  - Contact with, exposure to, etc.
- This often involves an unsafe act or substandard conditions

Identify the Indirect Cause(s)

These substandard acts, procedures and conditions usually set the stage for the incident
- Examples:
  - Lack of training
  - Departures from safe work practices
  - Not following MSDS
  - Using inadequate or defective equipment or materials
  - Inadequate PPE

Identify the Root Cause(s)

Root causes explain why substandard acts and conditions exist
- Examples:
  - Lack of knowledge could mean inadequate training and/or orientation systems
  - Worn, damaged or broken equipment could mean inadequate inspection or preventative maintenance systems
  - Trained worker not following safe work procedures could mean inadequate supervision systems

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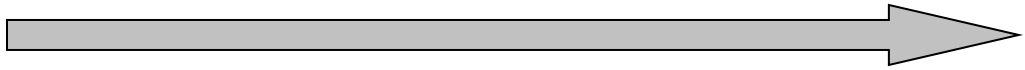
Reporting, Recommendations and Follow-up

Hierarchy of Control

At the source	Along the path	At the worker
Elimination Substitution Redesign Isolation Automation	Barriers Absorption Dilution	Training Supervision Policies and procedures Hygiene practices Administrative PPE



Most effective Least effective

Controlling at the Source

- Elimination: Try to eliminate the hazard. Get rid of hazardous job, tool, process, machines or substances
- Substitution: Replace hazardous substances with something less dangerous
- Redesign: Sometimes engineering can be used to redesign layout of the workplace, workstations, work processes and jobs to prevent ergonomic hazards
- Isolation: Isolating, containing or enclosing the hazard is often used to control chemical and biological hazards
- Automation: Dangerous processes can sometimes be automated or mechanized

Controlling Along the Path to the Worker

Hazards that cannot be isolated, replaced, enclosed or automated can sometimes be removed, blocked, absorbed or diluted before they reach workers.

- Barriers: Proper equipment guarding can protect workers from contacting moving parts. Screens and barriers can block welding flash, x-ray radiation.
- Absorption: Baffles can block or absorb noise
- Dilution: Ventilation might dilute the concentration of a hazardous gas with clean air from the outside (e.g., confined space).

Controlling at the Level of the Worker

Control at the level of the worker does not remove the risk posed by a hazard. It only reduces the risk of the hazard injuring the worker and lessens the potential seriousness of an injury.

Administrative Controls

- Policies
- Safe work practices and procedures
- Training
- Supervision
- PPE

Develop Short and Long Term Corrective Action Recommendations

- Direct causes: such as ensuring all hazards are identified at the workplace
- Indirect causes: such as ensuring workers are trained in the safe work practices for their job
- Root causes: such as reviewing the SMS to insure that systems are in place to identify and control hazards; ensuring adequate training, orientation and supervision systems are in place

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Reporting and Recommendations

Regulation 8, 9, 29, 31 investigation reports require:

- Name of the injured worker and their injuries
- Contact information
- A description of the incident
- Graphics, photos and other evidence
- Explain what happened and why

The intent of the report is to:

- Detail specific recommendations
- Affect change
- Improve the health and safety at the workplace

The report should include:

- Description of the incident in detail
- Factors that led to the incident as determined by the investigation
- Incident direct, indirect and root causes
- Recommendations for corrective action

Ensure there is a follow-up mechanism. Ensure confidentiality.

Recommendations to prevent recurrence must be:

- Specific and clear
- Practical
- Affordable
- Achievable
- Prioritized

An executive summary may be useful on a longer or more detailed report.

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Take Action

Employers must:

- Take immediate action to protect workers
- Take long term action to correct root causes
- Comply with OH&S regulations
- Provide OHC with written report

Employer's process to follow:

- Reviews the investigation report
- Reviews the recommendations
- Decides what actions will be taken

Responsibilities Related to Taking Action	
Management: ▪ Acting on the recommendations, and the development of a "master plan" ▪ Putting into place P&Ps, JSA's ▪ Implementation of the corrective action ▪ Assigning who is accountable to see the corrective action is carried out ▪ Communicating and working with the OHC on the implementation and follow up ▪ Following up on the outcome of the corrective action	**Supervisors:** ▪ Working with leadership and OHC committee on implementation and follow up ▪ Communication of corrective action to all employees under their supervision ▪ Communicate to their leadership team if the corrective action is not working ▪ Ensuring workers know everyone is accountable and responsible to follow the corrective action ▪ Monitoring to see if the corrective action is working or has created a "new" hazard
Workers: ▪ To follow safe work procedures determined by the corrective action ▪ To identify to their supervisor if the corrective action does not work	**OHC:** ▪ To follow up - look and check the area; ask workers if the corrective measures work ▪ To review on the inspections round and/or in between ▪ Report back to the leadership team and the OHS Division as required

Major Reasons Incidents Re-Occur:

- Investigations are not done
- Direct, Indirect and Root Causes not fully considered
- Poor communication with employees on cause and corrective actions
- Corrective actions; not implemented or followed up

Investigation Report - Sample Form

Incident Investigation Report Form (adapt to suit your needs)					
Facility/unit/department:					
Location:		Date:		Time:	AM PM
Reported to OH&S: Yes No Date reported:			Contact and phone #:		
Injury or illness:		Type of incident (fall, cut, etc.):		Property damage:	
Name of injured worker(s):		Description:		Description:	
Experience:				Severity of damage/loss:	
Occupation:		Object or substance inflicting harm:		Collateral damage to equipment/object/substance related to accident:	
Exact location of accident:					
Part of body affected:		Person in control of activity:		Supervisor:	
Seriousness of injury or illness:		Number of work days lost:			
Summarize how the incident happened:					

Applicable Legislation

The following legislation references are applicable to investigations and are an excerpt from Saskatchewan's occupational health and safety legislation. The Act and regulations can be obtained from:

Ministry of Labour Relations and Workplace Safety
Web Site www.lrws.gov.sk.ca

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Saskatchewan Employment Act

Part III, Division 5 - Right to Refuse Dangerous Work; Discriminatory Action
Right to refuse dangerous work
3-31(b) the occupational health committee has investigated the matter and advised the worker otherwise.

OH&S Regulations

Accidents causing serious bodily injury
8 (1) An employer or contractor shall give notice to the division as soon as is reasonably possible of every accident at a place of employment that:
(a) causes or may cause the death of a worker; or
(b) will require a worker to be admitted to a hospital as an in-patient for a period of 72 hours or more.
(2) The notice required by subsection (1) must include:
(a) the name of each injured or deceased worker;
(b) the name of the employer of each injured or deceased worker;
(c) the date, time and location of the accident;
(d) the circumstances related to the accident;
(e) the apparent injuries; and
(f) the name, telephone number and fax number of the employer or contractor or a person designated by the employer or contractor to be contacted for additional information.
(3) An employer or contractor shall provide each co-chairperson or the representative with a copy of the notice required by subsection (1).

Dangerous occurrences
9(1) In this section, "dangerous occurrence" means any occurrence that does not result in, but could have resulted in, a condition or circumstance set out in subsection 8(1), and includes:
(a) the structural failure or collapse of:
(i) a structure, scaffold, temporary falsework or concrete formwork; or
(ii) all or any part of an excavated shaft, tunnel, caisson, coffer dam, trench or excavation;
(b) the failure of a crane or hoist or the overturning of a crane or unit of powered mobile equipment;
(c) an accidental contact with an energized electrical conductor;
(d) the bursting of a grinding wheel;
(e) an uncontrolled spill or escape of a toxic, corrosive or explosive substance;
(f) a premature detonation or accidental detonation of explosives;
(g) the failure of an elevated or suspended platform; and
(h) the failure of an atmosphere-supplying respirator.
(2) An employer, contractor or owner shall give notice to the division as soon as is reasonably possible of any dangerous occurrence that takes place at a place of employment, whether or not a worker sustains injury.

(3) A notice required by subsection (2) must include:

(a) the name of each employer, contractor and owner at the place of employment;

(b) the date, time and location of the dangerous occurrence;

(c) the circumstances related to the dangerous occurrence; and

(d) the name, telephone number and fax number of the employer, contractor or owner or a person designated by the employer, contractor or owner to be contacted for additional information.

(4) An employer, contractor or owner shall provide each co-chairperson or the representative with a copy of the notice required by subsection (2).

Occupational health and safety program

22 (1) Subject to subsection (2), an occupational health and safety program required by section 13 of the Act must include:

(h) a procedure for the investigation of accidents, dangerous occurrences and refusals to work pursuant to section 23 of the Act at the place of employment;

Investigation of certain accidents

29(1) Subject to section 30, an employer shall ensure that every accident that causes or may cause the death of a worker or that requires a worker to be admitted to a hospital as an in-patient for a period of 24 hours or more is investigated as soon as is reasonably possible by:

(a) the co-chairpersons or their designates;

(b) the employer and the representative; or

(c) where there is no committee or representative, the employer.

(2) After the investigation of an accident, an employer, in consultation with the co-chairpersons or their designates, or with the representative, shall prepare a written report that includes:

(a) a description of the accident;

(b) any graphics, photographs or other evidence that may assist in determining the cause or causes of the accident;

(c) an explanation of the cause or causes of the accident;

(d) the immediate corrective action taken; and

(e) any long-term action that will be taken to prevent the occurrence of a similar accident or the reasons for not taking action.

Prohibition re scene of accident

30(1) Unless expressly authorized by statute or by subsection (2), no person shall, except for the purpose of saving life or relieving human suffering, interfere with, destroy, carry away or alter the position of any wreckage, article, document or thing at the scene of or connected with an accident causing a death until an officer has completed an investigation of the circumstances surrounding the accident.

(2) Where an accident causing a death occurs and an officer is not able to complete an investigation of the circumstances surrounding the accident, an officer may, unless prohibited by statute, grant permission to move the wreckage, articles and things at the scene or connected with the accident to any extent that may be necessary to allow the work to proceed, if:

(a) graphics, photographs or other evidence showing details at the scene of the accident are made before the officer grants permission; and

(b) the co-chairpersons of a committee or the representative for the place of employment at which the accident occurred or their designates have inspected the site of the accident and agreed that the wreckage, article or thing may be moved.

Investigation of dangerous occurrences

31(1) An employer, contractor or owner shall ensure that every dangerous occurrence described in subsection 9(1) is investigated as soon as is reasonably possible by:

(a) the co-chairpersons or their designates;

(b) the employer, contractor or owner and the representative; or

(c) where there is no committee or representative, the employer, contractor or owner.

(2) After the investigation of a dangerous occurrence, an employer, contractor or owner, in consultation with the co-chairpersons or their designates or with the representative, shall prepare a written report that includes:

(a) a description of the dangerous occurrence;

(b) any graphics, photographs or other evidence that may assist in determining the cause or causes of the dangerous occurrence;
(c) an explanation of the cause or causes of the dangerous occurrence;
(d) the immediate corrective action taken; and
(e) any long-term action that will be taken to prevent the occurrence of a similar dangerous occurrence or the reasons for not taking action.

Injuries requiring medical treatment
32 An employer or contractor shall report to the co-chairpersons, the representative or their designates any lost-time injury at the place of employment that results in a worker receiving medical treatment and allow the co-chairpersons, the representative or their designates a reasonable opportunity to review the lost-time injury during normal working hours and without loss of pay or other benefits.

Violence
37 (3) A policy statement required by subsection 14(1) of the Act must be in writing and must include:
(g) the procedure the employer will follow to document and investigate a violent incident reported pursuant to clause (f)

Musculoskeletal injuries
81 (2) An employer or contractor, in consultation with the committee, shall regularly review the activities at the place of employment that may cause or aggravate musculoskeletal injuries.
(5) Where a worker has symptoms of musculoskeletal injury, an employer or contractor shall:
(b) promptly review the activities of that worker and of other workers doing similar tasks to identify any cause of the symptoms and to take corrective measures to avoid further injuries.

Exposure control plan
85(3) An exposure control plan must:
(k) require the investigation and documentation, in a manner that protects the confidentiality of the exposed worker, of any work-related exposure incident, including the route of exposure and the circumstances in which the exposure occurred; and
(l) require the investigation of any occurrence of an occupationally transmitted infection or infectious disease to identify the route of exposure and implement measures to prevent further infection

Report of worker's exposure
311(1) Where an accumulation, spill or leak of a chemical substance or biological substance listed in Table 19 or 20 of the Appendix occurs and results in the exposure of a worker to the chemical substance or biological substance to an extent that may affect the health or safety of the worker, an employer, in consultation with the committee, shall investigate the incident as soon as is reasonably possible and prepare a written report that includes:
(a) a description of the incident, including the date and all affected worksites;
(b) the names of the substances released and the characteristics of the substances;
(c) for each substance released, the estimated duration and the extent of each worker's exposure;
(d) the name of each worker exposed and the manner in which the substance entered the worker's body;
(e) the causes of the incident; and
(f) any corrective actions taken to prevent occurrence of a similar incident.
(2) An employer shall provide a copy of a report prepared pursuant to sub-section (1) to any worker who was exposed to the chemical substance or biological substance that was released.

Patient moving and handling
470 (4) An employer, in consultation with the committee, shall review all injuries resulting from mobilizing, lifting, holding, turning, positioning or transferring patients, residents or clients to determine the causes of the injuries.

PRACTICE: Root Cause Investigation Worksheet

(refer to the case study used in classroom learning)

OH&S Legislation Requirements

1. Is this a reportable accident or dangerous occurrence? WHY or why not?

2. If this incident must be reported, what information must be sent to the OH&S Division?

3. Must this incident be investigated, and if so, by whom?

4. What information must be in an investigation report requested by an occupational health officer?

Big Picture

Summarize what you have discovered from your initial survey of the situation:
(Who did you talk to, what did they say, what did you see?)

Collect PHYSICAL Evidence

Summarize the physical evidence you have collected:
(Materials, tools, equipment, environment, chemicals and biologicals, work areas, work flow, work procedures. Have you taken any photos or videos?)

Collect DOCUMENT Evidence

Summarize the document evidence you have collected:
(Standards and technical information, legislation, industry standards, inspection reports, investigation reports, incident reports, hazard reports, training records, orientation records, maintenance records, repair logs, research, safety management systems documents, rules, policies, procedures)

Collect INTERVIEW Evidence

Who will you interview and in what order?

What questions will you ask?

What is Your Analysis of the Incident Factors?

People (supervision, training, orientation, work practices):

Material (substances, tools, equipment):

Work Process (work flow, work design, alignment with JSA and procedure, common vs standard practices, worker training and competence):

Management Systems (are there policies, procedures, rules, training plans, supervisor training, inspections, maintenance programs, accountabilities?):

Analyze the Evidence:

- Examine each statement and what it reveals about the incident
- Analyze physical and documentary evidence, correlate with interviews
- Consider if any substandard actions and/or conditions are factors

Review all that you have discovered. Develop your conclusions. Check each conclusion to see if:

- It is supported by evidence
- The evidence is:
  - direct (physical or documentary);
  - based on eyewitness accounts; or
  - based on assumption.

List the direct cause(s):

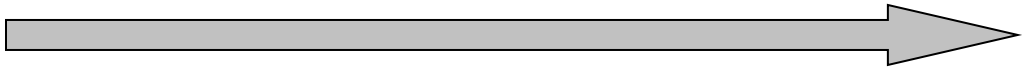
List the indirect cause(s):

List the root cause(s):

Short and Long Term Corrective Action Recommendations

Hierarchy of Control

At the source	Along the path	At the worker
Elimination Substitution Redesign Isolation Automation	Barriers Absorption Dilution	Training Supervision Policies and procedures Hygiene practices Administrative PPE



Most effective Least effective

Refer to the causes and control methods identified.

Short term corrective action recommendations:

Long term corrective action recommendations:

Write the Report

Description of the incident in detail

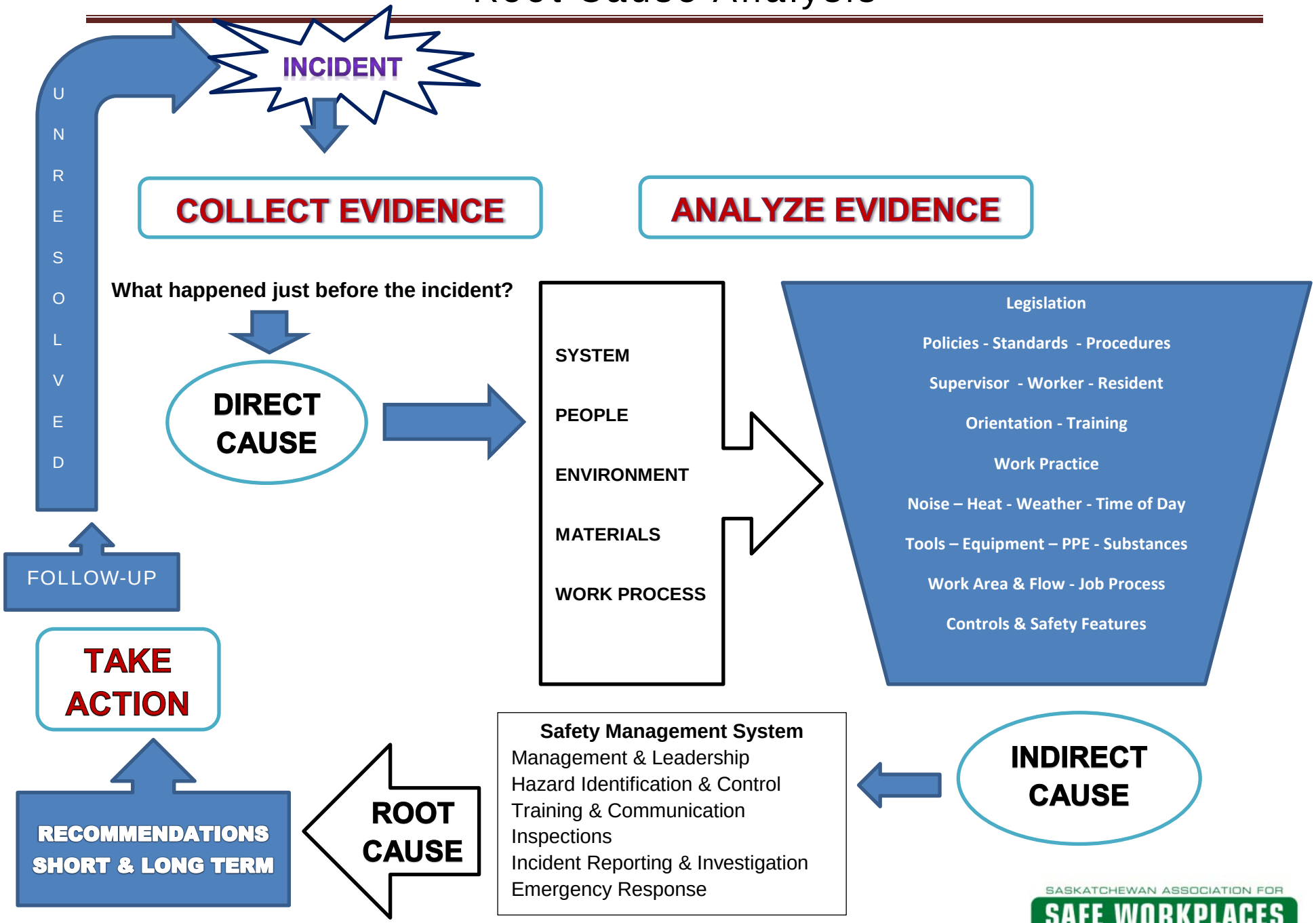
Factors that led to the incident as determined by the investigation

Direct, indirect and root causes

Recommendations for corrective action, short and long term (include recommended timelines and responsibilities)

Follow-up mechanisms (include recommended timelines and responsibilities)

Root Cause Analysis



SASKATCHEWAN ASSOCIATION FOR SAFE WORKPLACES IN HEALTH

Incident Reporting and Investigation Evaluation

Facilitator's Name: _____ Date: _____

Participant Name: _____ Length of Session (hrs): _____

Rate yourself for each of the following:	Prior to the session (1 low; 5 high)	After the session (1 low; 5 high)
I am able to explain the regulatory requirements for reporting and investigating dangerous occurrences.	1 2 3 4 5	1 2 3 4 5
I am able to explain the elements of an effective workplace incident investigation program.	1 2 3 4 5	1 2 3 4 5
I am able to explain the incident investigation process for collecting evidence.	1 2 3 4 5	1 2 3 4 5
I am able to explain the incident investigation process for analyzing evidence.	1 2 3 4 5	1 2 3 4 5
I am able to determine the contributing factors of an incident.	1 2 3 4 5	1 2 3 4 5
I am able to determine the root cause(s) of an incident.	1 2 3 4 5	1 2 3 4 5
I am able to develop a report that lists recommendations for corrective actions.	1 2 3 4 5	1 2 3 4 5

Describe one new skill that you will begin to use as soon as you return to your job:

_____

_____

_____

What did you find most important or most helpful during this session?

_____

_____

If you could change one thing about this session, what would it be and why should it change?

_____

_____

In your workplace, what specific concerns are you aware of regarding incident reporting and investigations?

_____

_____

Your comments count – they will be reviewed by SASWH and used to enhance this program to ensure learning outcomes are met.

Follow-up request

If you would like a SASWH Safety Specialist to follow-up with you on a specific concern, please print your name at the top of this form and provide your contact information:

Work ph: _____ E-mail: _____

Thank you for completing this evaluation form.