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Glossary

Accident: See incident.

Competent: Possessing knowledge, experience and training to perform a specific duty.

Contractor: A person who, or partnership or group of persons that, directs the activities of one or more employers or self-employed persons, or retains an employer or self-employed person to perform work at a place of employment, and knows or ought reasonably know the provisions of the SEA and regulations applying to the workplace at the time of retaining the person.

Controlled product: A controlled product within the meaning of the Hazardous Products Act (Canada).

dBA: The sound pressure level in decibels measured on the A scale of a sound level meter.

dBA<sub>Lex</sub>: The level of a worker’s total exposure to noise in dBA averaged over an entire workday and adjusted to an equivalent eight-hour exposure.

Direct cause: What directly led to the incident, such as an unsafe work practice or an equipment failure.

Dangerous occurrence: Occurrences explained in regulation 9.

Due diligence: A person has a legal duty to take every precaution reasonable given the circumstances to avoid both harm and an offence against the law. It is a very high standard to take reasonable care. In context of the OHS legislation, the following principles encompass due diligence:

- General duties: The SEA imposes a duty on everyone in the workplace to take reasonable care of their health and safety and that of others, to the degree that they have the authority and ability to do so. This general duty is in addition to and goes far beyond complying with the law.

- Regulatory compliance: If someone is charged with contravening the legislation, they cannot defend themselves successfully by claiming that they did not intend to break the law or comply. To defend themselves adequately, a person must be able to show that they took every reasonable practicable action to ensure compliance.

- Reasonably practicable: A person must show that they took every possible precaution, unless they can show the benefits of taking the precaution are greatly exceeded by the cost in time, trouble and money. The greater the risk, the greater the health and safety measures required.

- Proactive: Due diligence requires a proactive and systematic approach to health and safety. Implement a health and safety program that:
• Identifies hazards;
• Assess the risks associated with those hazards;
• Implements measures to eliminate or minimize those risks; and
• Monitors each part of the program to ensure it is adequate and efficient.

Employers must develop and implement this plan in consultation with their workers. Workers must comply with the program to the extent that they have the knowledge, authority and ability to do so.

**Employer:** A person, firm, association or body that has one or more workers in connection with the operation of a place of employment.

**Employees:** Managers, supervisors and workers.

**Equipment:** Any mechanical or non-mechanical article or device, including any machine, tool, appliance, apparatus, implement, service or utility. It does not include the personal property owned by an individual unless that property is used in the occupation.

**Expose:** Harmful contact through inhalation, ingestion or absorption through the skin.

**Harmful:** Known to cause harm or injury.

**Hazard:** Any activity, situation or substance that could harm a worker. Occupational hazards are divided into two broad categories: health hazards and safety hazards. Generally, health hazards cause occupation illnesses, such as noise induced hearing loss (NIHL). Safety hazards cause immediate physical harm, such as cuts and broken bones. Hazards exist in all workplaces.

**Hazardous:** Likely to cause harm or injury in certain circumstances.

**Incident:** Any unplanned, unwanted event that may or may not cause injury, illness or damage. The terms accident and incident are often used interchangeably, but the preferred term is incident. It is Mission: Zero’s campaign that all incidents are predictable and as such preventable. Therefore, there is no such thing as accidents, only incidents.

**Indirect causes:** The working conditions that set the stage for an incident, such as inadequate training or detailed procedures.

**Infectious material or organism:** An infectious material or organism set out in Table 14 or the Appendix to the regulations.

**Inspection:** An examination of a workplace, selected work area or particular hazards, machinery, tools, equipment and work practices. Findings are compared to applicable standards and best practices.

**SDS:** Safety data sheet.
Occupational health and safety representative: (Representative) Occupational health and safety representative designated pursuant to SEA 3-24.

Occupational health committee: (OHC or committee) Occupational health committee established pursuant to SEA 3-22, 3-23 or the regulations.

Occupational health officer: (OHO) A person appointed as an occupational health officer pursuant to SEA 3-6.

Owner: A trustee, receiver, mortgagee in possession, tenant, lessee or occupier of any lands or premises used or to be used as a place of employer. An person who acts as an agent or delegate for or on behalf of one of these people is considered an owner.

Plant: Any premises, site, land, mine, water, structure, fixture or equipment employed or used in the carrying on of an occupation.

Practicable: Possible given current knowledge, technology and invention.

Reasonably practicable: Practicable unless the person on whom a duty is placed can show that there is a gross disproportion between the benefit of the duty and the cost in time, trouble and money of the measures to secure the duty.

Regulations: The Occupational Health and Safety Regulations, 1996 (regulations or regs).

Root causes: The fundamental flaws that created the working conditions leading to an incident (like inadequate training) that may indicate defects in the employer’s health and safety management system.


Self-employed person: A person who is engaged in an occupation but is not in the service of an employer. Examples: Self-employed trades people and consultants under contract.

Supervisor: An individual who is authorized by an employer to oversee or direct the work of workers.

Supplier: A person who supplies, sells, offers or exposes for sale, leases, distributes or installs any plant, biological or chemical substance used at the place of employment.

Train: To give information and explanation to a worker in a particular subject matter and require a practical demonstration that the worker has acquired knowledge or skill related to the subject-matter.

WCB: The Saskatchewan Workers’ Compensation Board.
Preface

*Level 2 Occupational Health Committee Training* instructs OHC members on their roles in conducting inspections under regulation 28 and incident investigations under regulations 8, 9, 29, 30 and 31 (combined two-day course).

*Level 1 Occupational Health Committee Training* is a two-day basic course that helps employers meet regulatory requirements for training OHC members.

Also available is a one-day course on *Supervision and Safety* and the role of OHCs under the Workplace Hazardous Information System (WHMIS).

Purpose of this workshop

The incident investigation workshop is Day 2 of a two-day course. It will help OHC members, worker health and safety representatives, supervisors and employers to investigate workplace incidents, find the causes and recommend how to prevent a recurrence.

The workshop is in two parts. Part I reviews regulatory requirements for reporting and investigating incidents and dangerous occurrences. Part II covers how to investigate incidents, including how to:

1. Collect evidence (OHC/employer).
2. Analyze evidence (OHC).
3. Write the report (OHC).
4. Take action (employer).

Workshop goals

Help students understand:

- Their responsibilities under the Occupational Health and Safety Regulations, 1996, for reporting and investigating incidents and dangerous occurrences.
- How to plan effective investigations.
**Introduction**

- Incidents and dangerous occurrences
- Why investigations are important
- How the OHC can help the employer
- The purpose of OHC investigations
- Investigations conducted by specialists
- The role of the employer
- Getting results from investigations

**Incidents and dangerous occurrences**

An *incident* is any unplanned, unwanted event that may or may not cause injury, illness or damage. The terms accident and incident are often used interchangeably, but the preferred term is incident.

**Regulation 8, Accidents causing serious bodily injury**

(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.

**Regulation 9, Dangerous occurrences**

(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.

Why investigations are important

Incidents are often a warning that the workplace’s health and safety system isn’t working properly. Safety-conscious employers investigate any incident that causes, or could have caused, an injury, illness or damage.

Effective incident investigations prevent recurrences and make the workplace safer and healthier. That is why the regulations require that employers and OHCs investigate and report certain incidents to OHS Division.

How the OHC can help the employer

Worker involvement makes most investigations more effective. The legislation specifies how the OHC or representative must be involved. OHCs can use many of the principles and procedures discussed here to investigate other issues, such as refusals to work under SEA 3-31.

The purpose of OHC investigations

OHC investigations, or investigations conducted by the representative and the employer, should:

- Find and correct root causes.
- Check the employer’s health and safety system and suggest improvements (where required).
- Not assess blame.

Investigations conducted by specialists

The employer, contractor or owner may ask a specialist for help, such as a professional investigator from an insurance company or a health and safety professional. Where this is done, the OHC or representative must be:

- Involved in the investigation;
- Provided with copies of related reports; and
- Given a chance to discuss their concerns.
The OHC, or the representative and employer, owner or contractor may conduct additional investigations.

**The role of the employer**

The employer ultimately is responsible for the effectiveness of incident investigations, including what corrective action to take to address OHC incident report recommendations.

For effective incident investigations, the employer may integrate them into the organization’s health and safety system (e.g., emergency planning) and provide the investigation team with appropriate training and resources.

**Getting results from investigations**

Incident investigations must not be blame-fixing exercises. Blaming the worker, supervisor or employer won’t make the workplace a healthier or safer place. Each incident usually has several contributing factors, not all of which are immediately obvious. Investigators must look for the root causes and not simply record events. Employers must correct root causes to ensure the effectiveness of the organization’s health and safety system.
How this course is designed

It uses a project-driven group work format

Students form OHCs (e.g., working groups/tables) established at the start of the course complete the workshop’s project during the day. Group work encourages students to work collaboratively and share experiences.

It uses a workbook to drive the project

Students use the Level 2 OHC Inspections and Investigations workbook to take lecture notes, review regulatory requirements for reporting and investigating incidents and dangerous occurrences (Part I) and complete each step in planning and conducting investigations (Part II).

The workbook contains the key material you will present, including images of the overheads you will use.

If you wish to use a video to accompany the workbook, select material appropriate to the content of the course.

Lectures present key material and link course components

Short (i.e., 15-20 minute) lectures present core material, set up each step in the project and link each step to the course.

Learning moves from the simple to the complex

Each section builds on the previous one. Example: The course begins with basic regulatory and background information students must know how to carry out OHC responsibilities. It then reviews how to plan and conduct an incident investigation.

It reviews regulatory requirements

Part I: Regulatory requirements covers:

- Incidents and dangerous occurrences that OHS Division must be notified about (regulations 8 and 9).
- Information required in the notifications to OHS Division.
- What incidents must be investigated and reported and by whom (regulations 29 and 31).
- What information must be in regulation 29 and 31 incident investigation reports.
- How to handle a fatality (regulation 30).
• What other incidents must be investigated (regulations 85 and 311).

Employers, representatives and OHCs must understand these requirements before they can carry out effective investigations.

**It follows the steps in an investigation**

**Part II: C.A.R.T. investigation techniques** reviews each step to take to conduct an investigation. The four steps used are a simplified version of the process discussed in the *Level 2 Incident Investigations Guide*:

1. Collect evidence (OHC/employer).
2. Analyze evidence (OHC).
3. Write the report (OHC).
4. Take action (employer).

Don’t spend too much time on Step 4 as it is a responsibility of the employer and not the OHC or representative.

**It can be adapted to suit the needs of your student**

You can develop your own industry-specific inspection project workbook and supporting resources that meet the requirements for balanced instruction set out in the instructor application.

**It can be co-delivered**

When qualified instructors return to their workplace, they can co-deliver this course to their staff by the qualified instructor worker and employer representatives.
How this course is organized

The following structure provides a systematic overview of how to teach the Level 1 course. Here is how to use each column.

The times quoted in the left column are rough estimates. How much time you will need to cover each item will vary from class to class.

Expect your first courses to go slowly. You will be able to speed things up or slow things down as you gain experience.

<table>
<thead>
<tr>
<th>Item</th>
<th>This column lists the project or block of lecture content to present.</th>
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<tr>
<td></td>
<td>A lecture introduces each project and links its sections together.</td>
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<th>Description</th>
<th>This summarizes what each block of content includes and what to do as you cover each block.</th>
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<th>What to use</th>
<th>This lists the resources you will use with each section.</th>
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<td>Some resources are used throughout the class are only printed once in the top row of the table.</td>
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<td>Time</td>
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<tr>
<td>8:30</td>
<td>Welcome and course overview (Day 2)</td>
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<td>8:45</td>
<td>Icebreaker project</td>
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<td>9:20</td>
<td>Introductory lecture</td>
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<tr>
<td>9:45</td>
<td>Part I Objectives 1: Regulatory requirements</td>
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<td></td>
<td>Project: Dribbles Plastics</td>
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<td></td>
<td>15-minute break at appropriate time</td>
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<td>11:00</td>
<td>Part II Objective 2: Evidence collection</td>
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<td>Project: Collect evidence</td>
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<td></td>
<td>Lunch</td>
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<td>1:00</td>
<td>Administration</td>
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<td>1:05</td>
<td>Project: Collect evidence</td>
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<td>1:30</td>
<td>Objective 3: Analyze evidence</td>
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<td>Project: Analyze evidence</td>
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<td>15-minute break at appropriate time (or offer choice of no break</td>
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<td>and to leave early)</td>
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<td>2:30</td>
<td>Objective 4: Investigation report</td>
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<td>Project: Develop investigation report</td>
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<td>3:20</td>
<td>Objective 5: Take action</td>
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<td>3:45</td>
<td>Wrap up</td>
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Resources

Student course kit
• OHC Training Level 2 - Workplace Inspections and Incident Investigations Workbook
• Tent card or name tag
• Self-check*
• Evaluation

Instructor package
• Lecture PowerPoint overheads
• Student attendance certificates (prepare in advance and hand out at end of course - or to be mailed out)
• Registration form

Instructor resources
• Flipchart or white board, paper pads and pens
• Tent cards (number and place on tables to help students find where to sit during icebreaker project)
• Masking tape, silly putty or sticky tac to post flipchart paper to walls
• Felt pens (put one felt pen at each table for students)
• Multimedia projector and screen (overhead projector recommended as a backup)
• Computer overheads and course files
• Extension cords and power cord covers (to prevent falls)

Publications for students
• OHC Training Level 2 - Workplace Inspections Guide
• OHC Training Level 2 - Incident Inspections Guide
• The Occupational Health and Safety Regulations, 1996
• SEA, Part III

Instructor publications
• As per student package
• OHC Training Level 2 - Workplace Inspections Instructor’s Guide
• OHC Training Level 2 - Incident Investigations Instructor’s Guide

Optional publications
• Technical publications and resources of your choice
• Photograph enlargements of photos in the workbook
• Incident inspection video or DVD of your choice

* This evaluation and quiz must be administered by qualified instructors and approved training agencies (regulation 46(4)) and kept on file for three years. OHS Division may request copies. The evaluation asks students to contact OHS Division if they have concerns about the instruction provided. Contact OHS Division for more information.

Make a list of additional resources (e.g., books, websites) that you wish to use. If you have internet access at the course location, consider showing students how to use the LRWS and WorkSafe Saskatchewan websites: www.saskatchewan.ca or www.worksafesask.ca.
Course map and objectives

Start

Welcome and course overview
8:30 – 8:45 a.m.

Icebreaker project
8:45 a.m.

Introductory lecture
9:20 a.m.

Objective 1: Regulatory requirements
9:45 a.m.
Project: Dribbles Plastics

Objective 2: Collect evidence
11:00 a.m.
Project: Collect evidence

Complete witness interviews
1:05 p.m.

Objective 3: Analyze evidence
1:30 p.m.
Project: Analyze evidence

Objective 4: Investigation report
2:30 p.m.
Project: Develop investigation report

Objective 5: Take action
3:20 p.m.
Optional: Hazard control process

End-of-course wrap up
Summary, questions, evaluations
Sample objective

The course uses an objective, core message and minimum content format.

Objective

Each objective introduces the content it covers.

Use the Notes page to make your own notes on how to teach each objective to the students.

Core message(s)

These summarize the key points to make. They are listed after each objective.

Minimum content

You must use this material.

It usually includes a lecture and project.
How the instructor’s guide is set up

Instructions and teaching points

General instructions, teaching points and suggestions in black type.

Each slide or topic is introduced in RED TEXT.

REVIEW THE COURSE TEXTS

WHAT YOU ARE EXPECTED TO SAY

Script, or an outline of what you would say, is in blue text.

Don’t stick rigidly to the script or simply read material to the class. Adapt the content to your audience and use examples from your experience to illustrate key points.

HELPFUL NOTES, TIPS AND REMINDERS

You’ll find helpful notes and reminders in the margins of the guide.

PROJECT WORKBOOK NUMBERS

Page X in the workbook. For reference, workbook page numbers are referenced.
POWERPOINT SLIDES

Thumbnails of the presentation are in the margins of the guide.

You can add slides of your own. All the slides you will use are in this guide (unless you have made your own changes). Any slide changes you make will affect slide numbers and page numbers in guide and workbook.

Review the slides before your first presentation to become familiar with the content and sequence. For example: The answer slides for each step in the project usually follow the instructions. You will not want to reveal the answer slides before the students complete the assignment.

You may not need to use all of the slides assigned to each section. For example: You may find it easier to simply discuss the answers to each step in the class project with the students rather than going through the answer slides.

STOP SIGN

When students are involved in activities such as the hazard and risk projects, moving through the slide show in the appropriate manner is very important. The stop sign will warn you not to advance to the next slide until students have had the opportunity to complete group discussion.

Do not advance to the next slide until all the groups have discussed the project questions. Give each group or spokesperson an opportunity to share their discussion with the class.

Then the following slide will reinforce the responses from the group discussion, as well as add ideas that were not discussed.
Teaching tips

Know your stuff

Prepare thoroughly and know the content, this guide and the workbook. If possible, obtain some backup copies of crucial items. Gather everything you need before leaving the office. Be prepared in the event that your electronic equipment does not work.

Building your own lectures

Most of the material in the course comes from situations encountered by occupational health officers. But it’s only bare bones. Elaborate on the information and make it relevant to your audience. Prepare stories from your experience to illustrate key points. Use question and answer techniques.

Using the audiovisuals

- Know how to use the audiovisual equipment and software.
- All of the PowerPoint slides you will use are in the workbooks.
- Prepare any additional slides you need.

Know the facility

- Research (inspect if possible) the classroom before the course and make sure it’s adequate. Get a classroom that allows you to dim the lights in front of the screen if you can. Find out if there is a loading dock near the classroom for you to unload your vehicle.
- Check the fire exits. Find out what to do if there is an emergency.
- Check heat, lighting, noise and ventilation.
- Check washrooms, parking arrangements and outside areas where smoking is allowed.
- Check arrangements (if any) for coffee. Find out where the nearest restaurants are (to advise students for lunch break), etc.

Organize the classroom

- Arrange the tables for group work and set up and secure the A/V equipment the night before, if possible.
- Make sure the students at the back of the room will be able to see the screen and read the text in the overheads. Projected images should fill the screen.
• Make sure power cords won’t become a tripping hazard. Tape them down with gaffer tape or use cord covers.

• Put course packages at each student’s place and numbered post-it notes or cards on each table to help students know which table/group they are in for the projects.

• Put flipchart paper and small pieces of masking tape on each table.

• Have extra course packages, flipchart paper, notepaper, pens, rolls of masking tape and felt markers available.

• Place a welcome sign up in the room identifying the course. Alternatively, simply project the course’s title slide about forty-five minutes before the class starts. If necessary, put signs in the hall to help students find the room.

**Greet students**

Greet students as they arrive. Allow time for latecomers. Have students sign the course registration sheet during the first group project or when it is appropriate for you.
Commonly asked questions

Here are a few commonly asked questions.

What is an occupational health officer?

Some of your students may not know what an occupational health officer (OHO) is or what powers an OHO has. They may also mistakenly believe that an OHC has some of the authority given to an OHO, such as the right to issue notices of contravention or compliance undertakings (SEA, Part III, Division 6).

An occupational health officer refers to workplace health and safety inspectors, hygienists, toxicologists and others appointed by the SEA. Each officer carries identification documents issued by OHS Division. OHOs help administer the SEA and regulations. Duties include:

- Provide education, information and advice;
- Help employers, contractors, workers, OHCs and others to create and maintain healthy and safe working conditions; and
- Investigate incidents, dangerous occurrences and refusals to work.

See SEA 3-63 for a description of the powers of OHOs.

What core messages and minimum course content must I use?

The lectures in the guide contain the core messages and minimum course content that you are expected to deliver. You do not have to use the exact wording in the guide or rigidly follow the script. However, you must convey the correct messages to the students.

Elaborate on the material as required and illustrate your teaching points with examples from the field. Make the material relevant to your audience.

How should I deal with questions requiring interpretation of regulatory requirements?

Many of your students expect you to help them understand regulatory requirements. Generally, interpret regulatory requirements where you:

- Are familiar with the legislation and have discussed related issues; and
- Know something about the technical/industrial issues involved.

Refer students to OHS Division (protect yourself) where you are not familiar with requirements or the circumstances surrounding a question. Examples:

- The question relates to a compliance undertaking or notice of contravention issued by an occupational health officer.
• You are uncertain of the appropriate interpretation of the sections of the SEA or regulations.
• You are not familiar with the issue, such as the actions of an occupational health officer at a student’s work site.

Simply put, don’t answer a question if you are not sure of the answer. Don’t address hypothetical situations. Encourage students to contact OHS Division and discuss their concerns with the OHO assigned to their area.

**Can I develop projects to suit the needs of my students?**

You may develop your own projects and add material to the course to make it student-friendly or industry specific. Your material must meet requirements for balanced instruction as set out in your instructor application.

**Can I break up the course and deliver it in independent modules?**

You do not have to deliver the entire course at one time. Your students may find it easier to attend several shorter sessions. However, modularizing the course may reduce its effectiveness.
Opening remarks, introductions and Icebreaker project

8:30  Start teaching the class/Introduce the course

Start the class with an opening introduction. Briefly introduce yourself as the instructor. More formal introductions of your OHS background. Class introductions will take place in a few slides.

Handle administration. It’s important we consider our safety during the delivery of this course. What to do in case of emergency, particulars of the facility, smoking areas, cell phone usage during class, even lunch and breaks are discussed at this time.

You will present how each table becomes a working group, much like an OHC at the workplace.

Core messages

Review course materials.

Present the course’s five learning objectives.

Conduct formal instructor and class introductions.

Present the Icebreaker project.

Minimum content

Lecture, associated teaching points and the Icebreaker project.
Class begins

Begin with an introduction to orient students to Day 2. Introduce yourself:

Well, let’s get started. Welcome to Day 2, Incident Investigations. Just to review, my name is ___________________.

ADMINISTRATION

Handle administrative issues Skip this if you covered it all on Day 1.

Just to recap:

- The emergency exits are...
- You can find the washrooms...
- As many of you know, this is a non-smoking course – during breaks, you can smoke outside...
- Remember to turn off your cell phones during class or set them to vibrate. No texting during class.
- We’ll have a break in the morning and in the afternoon.
- Let me know if the room becomes too hot or cold.

Page 73 in the workbook.

Don’t spend too much time repeating what you did yesterday.

Periodically ask the class how they are doing and if they have any questions.
COURSE MATERIALS

Review the contents of the student’s kits. Explain how to use the workbook, the guide and other course documents.

Tell the class that you’ll be teaching the course through a series of group activities and they will use the workbook during each one.

Encourage students to use their workbooks and inspection guides to plan their own workplace inspections. Encourage them to educate themselves by reviewing the legislation, information from suppliers, their employer’s policies, work procedures, etc.

You have several books and materials in front of you. As we go through the course, follow along in your workbook. While instructing, I will keep the class on the correct page. If you get off track, ask me or someone in your group to get you back on track.

Your materials also include reference materials. When you go back to your workplace, this reference book, along with the workbook will assist you in answering questions about investigations. As the course progresses we will use the guide when necessary to provide additional information.

The legislation refers to the regulations. We will use the regulations throughout the course.

Let’s quickly review how to find information in the regulations. Use the table of contents to identify the relevant part and then the specific regulation that applies. Remember, the number reference is to the regulation numbers, not the page number.

Have students go to regulations 8 and 9 in their copy of the regulations to show the way the regulations are written.
INTRODUCTIONS

Take a moment to tell the class more about your background. Include your health and safety experience but don’t cover what you did yesterday in details.

Ask each person to introduce themselves and describe what type of experience they have with workplace investigations.

Please introduce yourself to the class today. Tell us:

- Your name
- Where you work, what employer/industry
- Have you been involved in a workplace investigation?

LEARNING OBJECTIVES

The learning objectives for this course:

1. Learn regulatory requirements for investigating workplace incidents and dangerous occurrences
2. How to collect evidence for an investigation
3. How to analyze evidence for an investigation
4. How to develop a workplace investigation report
5. How to take action following a workplace investigation
ABOUT THIS COURSE

Today we cover the responsibilities for investigating incidents and dangerous occurrences and how to plan effective investigations. Conducting an investigation is an important function of your OHC. The course is divided into parts and broken into steps.

ABOUT THIS COURSE

Part I deals with regulatory requirements. You will learn:

- What incidents have to be reported to OHS Division and what information is required in the report.
- Which incidents have to be investigated, by whom and what information you must include in the investigation report.
- What other incidents must be investigated.

Part II covers investigation techniques that may help you to comply with Part I. It is divided into 4 steps:

1. Collect evidence (physical, documents and interviews).
4. Take action.

Use CART as an acronym to help students remember the steps to follow.
Every once in awhile, ask the class to let you know if they are too hot, too cold, can hear you, can see the slides, etc.

We won’t cover Step 4 in detail, as that is the employer’s responsibility. This course is basic and designed to help you meet your obligations under the legislation.

**8:45  Icebreaker project**

Page 76 in the workbook.

**ICEBREAKER PROJECT**

This project is designed to get the students involved quickly. It should take about 30 minutes.

Have the groups complete the questions and select a spokesperson to represent.

**OPTIONAL:** Have the group record their answers and objectives on a flipchart. Review the material on the sheets after you have taken up the project and clarify what will, and will not, be covered. Use the sheets from time to time to show how you are meeting their needs. Use them at the end of the class to summarize what has been covered and to show how you have met the students’ objectives.

Material from the workbook follows. Review the project’s instructions.

This project will help you practice working in groups, talk about your experiences with incident investigations and identify what you want to get out of the course.

Discuss the questions in the workbook and write down your answers in the space provided. Your group is an OHC. Select employer and worker co-chairs to guide discussion.
Questions:

- From your personal experiences with investigations, discuss what went well and what didn’t go well. Did the investigation team create a report? Who did the report go to? What actions were taken, if any, to correct the situation?

- If your group doesn’t have investigation experience, discuss what would be important in conducting an investigation.

- What do you want to learn today?

Do not advance to the next slide until all the groups have discussed the project questions. Give each group (spokesperson) an opportunity to share their discussion with the class. Use these answers as discussion items.
DEFINITIONS

Before we go further, let’s define a couple of key terms we’ll use today.

First, an accident is not defined in the legislation. For our purposes, we’ll define an incident as any unplanned, unwanted event that causes injury. Incidents are often (but not always) a sign that the employer’s health and safety management needs work.

A dangerous occurrence is defined in regulation 9. Essentially, a dangerous occurrence is an incident that could have hurt someone, but didn’t. We’ll review the definition of dangerous occurrence in regulation 9 shortly.

Investigating incidents is an important responsibility of employers, OHCs and representatives. It’s the time to take a reactive situation and turn it into a proactive opportunity.

INVESTIGATIONS

An investigation process is part of almost every health and safety program. Where there is no investigation process, determining the factors or causes that lead to an incident or dangerous occurrence will be harder to establish.
An investigation process requires planning. Good planning includes clear responsibilities for everyone in the investigation process. What resources are available to conduct the investigation? What is the procedure to follow?

We’ll review who has responsibilities for investigations plus the planning and resources required. OHS legislation determines what incidents must be investigated and reported. This becomes a beginning point in the planning stage.

There are many benefits to a well organized, thorough investigation.

**BENEFITS OF INVESTIGATIONS**

An effective investigation will help you find out what happened and why. Workers and the organization pay a price when an incident takes place. The goal of the investigation processes is to determine the causes of the incident.

Once incident causes have been identified, it becomes easier to identify corrective actions. Corrective actions are used to prevent a re-occurrence of a similar incident. An effective investigation becomes an opportunity to take a reactive situation and create a proactive change so that no one is in the position of becoming ill or injured again.

Our goal is to make the workplace a healthier and safer place to work.
Involving workers helps make investigations effective, credible and acceptable. The OHS legislation specifies that OHCs and representatives be involved in the investigation process. Assisting in investigating incidents is a key role of the OHC or representative. Even if the employer has dedicated safety personnel, the OHC or representative must be involved in incident investigations.

The OHC’s or representative’s responsibilities are to assist the employer to prevent a similar situation. Later in the course we will address how to determine the causes of an incident. We will also discuss the OHC’s or representative’s role in writing a report. For the OHC and representative this means presenting recommendations to the employer for corrective action.

Investigations conducted by an OHC or the representative and employer should:

- Determine root causes;
- Check the employer’s health and safety management system and suggest improvements (if improvements are needed); and
- Not assess blame.
EMPLOYER’S ROLE

The employer ultimately is responsible for both the quality of investigations and the effectiveness of corrective action. The employer must help the OHC or rep with its investigations.

To make incident investigations more effective, the employer can integrate them into the organization’s health and safety management system (i.e., emergency planning, etc.) and provide the investigation team with appropriate training and resources.

When a specialist investigates

Some investigations may become very complex. Where the employer has a specialist investigate, like an engineer or a hygiene specialist, the OHC or representative will be involved. It’s important to provide the specialist with copies of any reports or documents that offer information about the incident. The OHC or representative can also be involved when the specialist conducts any additional investigations.
9:45  Objective 1

Objective: Learn regulatory requirements for investigating workplace incidents and dangerous occurrences

Core messages

OHC members and employers must be able to identify incidents and dangerous occurrences that must be reported to OHS Division.

- Regulation 8 and 9 describe incidents that must be reported.
- Regulation 8 and 9 list what you must include in notifications sent to OHS Division.

OHC members and employers must be able to identify incidents that must be investigated:

- Regulations 29 and 31 describe incidents that must be investigated and by whom.
- Regulations 29 and 31 list what information to include in a written investigation report.
- Regulation 30 explains the responsibilities if the incident involves a fatality.

OHCs must also understand what additional incidents must be investigated and by whom.

Minimum content

Lecture, regulations and associated teaching points.
**PART I: REGULATORY REQUIREMENTS**

Part 1 covers the OHS regulations and explains what incidents and dangerous occurrences need to be reported to OHS. The regulations are very clear as to what must be reported, when it must be reported and the information in the report. This section starts with regulations 8 and 9. It is a good idea to have class participants have the regulations in front of them. Encourage the class to mark these sections for future reference.

This part also introduces the Dribbles Plastics incident scenario. The class will determine if the Dribbles Plastics incident scenario falls within the legislation and must be reported to OHS Division. The questions in the group project ask the students to review the applicable regulations and learn what incidents they must report.

Part I also covers what sections in the regulations put responsibilities on the organization to perform investigations (review regulations 29 and 31). Students will learn when an incident must be investigated, who must perform the investigation and what information to include in the written investigation report.

The questions in the group project ask students to review the applicable regulations and learn what incidents must be investigated.

Students will use the Dribbles Plastics scenario to learn what else must be investigated under additional regulations.

Part I covers the applicable regulations and the requirements for reporting and investigating incidents. Follow along in your workbook and use your copy of the regulations. Please ask questions to help you understand the material. If you find yourself on the wrong page in your material, say so and we’ll get you back on track.
REPORTABLE INCIDENTS

Regulation 8 requires the employer or contractor to report incidents that cause serious bodily injury to OHS Division.

Regulation 9 requires the employer, contractor or owner to report any dangerous occurrence to OHS Division.

REGULATION 8, INCIDENTS CAUSING SERIOUS BODILY INJURY

Turn to regulation 8 in regulations. This regulation deals with incidents that cause serious bodily injury. Employers and contractors are required to report any incident requiring a worker to receive emergency medical attention in a hospital if the incident:

• Causes or may cause the death of a worker; or

• Will require the worker to be admitted to a hospital as an in-patient for period of 72 hours or more.

If the employer or contractor are unsure how long the worker may be admitted in the hospital, OHS Division recommends you report the incident. You will be assigned an OHO who will discuss the final reporting procedures with you.

As a general rule, if a worker is injured to the extent where they need to be admitted to the hospital, it makes sense to contact OHS Division.
REGULATION 8, INCIDENTS CAUSING SERIOUS BODILY INJURY

Regulation 8 includes what must be in the notice to OHS Division.

- Name of each injured or deceased worker
- Name of the employer or contractor involved of each injured or deceased worker
- Date, time and location
- The circumstances related to the incident
- Apparent injuries
- Contact information for the employer or contractor

The employer or contractor provides each co-chair with a copy of the notice.

REGULATION 9, DANGEROUS OCCURRENCES

Regulation 9 requires the employer, contractor or owner to report any dangerous occurrence to OHS Division. Regulation 9 defines dangerous occurrence.

They are incidents that go beyond just being a hazard. Example: An overloaded crane is not a dangerous occurrence, it is a hazard. It becomes a dangerous occurrence if the crane overturns or fails because it was overloaded.
The dangerous occurrence could have hurt someone if circumstances had been slightly different. This means that the factors (i.e., forces, chemicals, biohazards, etc.) involved in an incident were powerful enough to cause serious harm, but for luck no one became ill or injured.

**REGULATION 9, DANGEROUS OCCURRENCES**

Regulation 9 includes what must be in the notice to OHS Division.

- Name of the employer, contractor or owner
- Date, time and location
- The circumstances related to the incident
- Contact information for the employer, contractor or owner

**Regulation 9, Dangerous occurrences**

- Dangerous occurrences are incidents that generally do not result in serious bodily injury
- Examples listed in regulation 9(1)(a-h)
- List is not all inclusive – only provides examples
- OHS Division encourages employers to report any incident that causes, or could have caused, serious injury

The employer, contractor or owner provides each co-chair with a copy of the notice. Dangerous occurrences generally do not result in serious injury.

Regulation 9(1)(a-h) lists examples of dangerous occurrences. These are only examples. The list is not all inclusive.
EXAMPLES OF DANGEROUS OCCURRENCES

OHS Division suggests employers, contractors and owners report any incident that causes or may have caused injury. Examples:

- A worker using an improperly maintained respirator is nearly overcome by poisonous gas.
- An overloaded crane is a hazard. It becomes a dangerous occurrence if it overturns or fails.
- A partially cut tree in a logging area is left standing. It falls while workers are out of the area. Workers could have been struck had they been working there.
- A partially completed masonry wall is blown over during the night. If the wall had collapsed during the day, workers would almost certainly have been injured.

Incidents do not need to be reported as dangerous occurrences if the employer can conclude that they posed no risk or occurred in an area where workers are never allowed or permitted to work.
REQUIRED INVESTIGATIONS

Regulation 29 requires that an employer ensures that every incident that causes or may cause the death of a worker to be investigated as soon as reasonably possible.

Regulation 31 requires that the employer, contractor or owner ensures every dangerous occurrence is investigated as soon as reasonably possible.

REGULATION 29, INVESTIGATION OF CERTAIN INCIDENTS

Turn to regulation 29 in the regulations. This regulation covers investigation of certain incidents. Employers shall ensure these incidents are investigated as soon as is reasonably possible. These are incidents that:

- Cause or may cause the death of a worker; or
- Require a worker to be admitted to a hospital as an in-patient for period of 24 hours or more.

The investigation shall be conducted by the:

- Co-chairs or their designates;
- Employer and worker health and safety representative; or
- Where there is no OHC or rep, the employer.
REGULATION 29, INVESTIGATION OF CERTAIN INCIDENTS

Regulation 29 states that, following the investigation, an employer, in consultation with the OHC or representative prepares a written report, including:

- Description of the incident
- Graphics, photos or other evidence that may assist to determine the cause or causes
- Explanation of the cause or causes of the incident
- Immediate (short-term) corrective action taken
- Any long-term actions or the reason for not taking long-term action

Have the class refer to regulation 30.

REGULATION 30, IF THE INCIDENT INVOLVES A FATALITY

The site of a fatality must not be disturbed, except to relieve suffering, until an OHO has investigated. Where an OHO cannot investigate and gives permission, the site may be cleared once:

- Graphics, photos and evidence showing details is gathered
- Co-chairs or representative investigated and agree that site may be cleared

When a site has been disturbed before an investigation completed, it becomes difficult to find out cause or causes and to prevent a re-occurrence.

If the site is disturbed before an OHO or OHC completes the investigation, it becomes difficult to determine the cause or causes. The OHC needs causal information to present corrective actions and prevent a reoccurrence.
REGULATION 31, INVESTIGATION OF DANGEROUS OCCURRENCES

Turn to regulation 31. An employer, contractor or owner shall ensure every dangerous occurrence is investigated as soon as is reasonably possible by:

- Co-chairs or their designates;
- Employer and worker health and safety representative; or
- Where there is no OHC or representative, by the employer.

REGULATION 31, INVESTIGATION OF DANGEROUS OCCURRENCES

Following the investigation an employer, contractor or owner, in consultation with the OHC or representative, prepares a written report. To include in the written report:

- Description of the dangerous occurrence
- Graphics, photos or other evidence that may assist in determining the cause or causes
- Explanation of the cause or causes of the dangerous occurrence
- Immediate (short-term) corrective action taken
- Any long-term actions

The reporting requirements for both regulations 29 and 31 are the same.
Incident Investigations Instructor’s Guide

Page 89 in the workbook.

PROJECT: DRIBBLES PLASTICS

Explain to the class that we’re going to apply what we’ve just learned about OHS regulatory requirements using the Dribbles Plastics incident scenario. The project scenario is based on an actual event in Saskatchewan.

This Dribbles Plastics incident scenario is about Herbert, a young worker with about six weeks of experience.

Herbert’s job is to operate a dribbler machine. Herbert crushed his left hand in the dribbler.

Your project is to have the OHC investigate and prepare a report for the employer.

INCIDENT SCENARIO

Read the scenario to the class. Assign the questions for regulatory requirements and get the groups to discuss. You have several options to cover the answers to the regulatory questions: Have each group orally report their answers, assign a question to each group or have them post their answers on a flipchart and cover the answers as a group. How you handle this assignment is up to you.

For this project, your group is the occupational health committee that is planning its first incident investigation.

I will read the incident scenario to the class. Follow along on page 91 in the workbook. All the projects today will be based on this scenario.
What happened

Dribbles Plastics manufactures a variety of plastic products. Herbert, a young worker with about six weeks of experience, has just crushed his left hand in a powerful packaging machine called a dribbler. As the OHC, you must investigate and prepare a report for the employer.

Dribbles are one of the firm’s most popular products. Each dribble is wrapped in a dribbler immediately before shipping. During the wrapping process, each dribble enters the machine on a conveyor belt. It is then placed in a plastic package. Two powerful hot steel rollers at the mouth of the machine encase and seal each package in shipping plastic as it exits through the front of the machine. Once they exit the machine, packaged dribbles are put in containers and shipped.

Sometimes dribbles in the dribbler twist and jam the conveyor belts before reaching the packaging rollers. This stalls the machine and production comes to a halt.

The incident happened during one of these stoppages. Herbert opened the front cover of the dribbler and was trying to free the jam by jogging the machine. Jogging requires Herbert to turn the start/stop switch on and off quickly to move the mechanism enough to free the jam. While jogging the machine with his right hand, Herbert reached between the rollers with his left to straighten the packages as the jogging freed them from the conveyor mechanism. Unfortunately, the dribbler started and the rollers closed on Herbert’s hand before the machine could be stopped. A manual mechanism-opening wheel on the machine was used to free Herbert’s hand.

Herbert was admitted to hospital and is waiting for reconstructive surgery on his hand.
Your OHC visits incident site and learns the following:

• The dribbler is very old. It was moved from previous plant and installed by the maintenance and sanitation engineer who saw incident.

• A yellowing, dusty policy hangs on a nearby wall. It states that troubles with the dribbler are to be reported to maintenance. Maintenance is to lockout the dribbler (i.e., cut all power sources and release any remaining energy in the machine) before working on it. Workers state that the policy has not been enforced for some time. The power breaker box is far away from the dribbler. It has no lock on it.

• The front cover is off the dribbler. Warning information on the caution plate is worn off. A worker informs you that a spring-loaded power cut-off switch on the chassis is supposed to pop and kill power to the dribbler if the front cover is raised. The worker states that this button has not worked for some time. She did not report it because “...no one is going to believe me or do anything about it anyway.”

• Workers say that the start/stop switch sometimes won’t turn the machine off immediately.

• The cover over the electrical components of the dribbler is missing. The wiring has been “creatively improved” to allow jogging and defeat the emergency stop system’s safety switches.

• Workers say that the dribbler malfunctions frequently and that Herbert and other workers were “trying to repair it in a rough, macho fashion” a few days ago.

• The supervisor has extra paperwork to do and is often in his office at the back of the plant when the dribbler is used. The supervisor was in his office doing paperwork at the time of the incident. It took sometime for the supervisor to be notified of the incident and reach the floor.

• No one knew what to do to help Herbert. None of the workers present had a valid first-aid certificate and the first-aid box was empty. No one knew what ambulance service to phone. In the end, the ambulance service contacted was the one that was the farthest away from the factory. This delayed Herbert’s transport to hospital. Due to complications resulting from the incident, he was hospitalized for four days.
PROJECT: INSTRUCTIONS

Select a worker and employer co-chair to guide your group’s discussion.

Answer the questions on page 95 in the workbook. Be prepared to share your group’s answers with the class. Remember to use the regulations to answer the questions.

Do not advance to the next slide until all the groups have discussed the project questions. Give each group (spokesperson) an opportunity to share their discussion with the class. We have provided you with some possible answers in the answer key below.

The answers will appear on each slide with a click of the mouse. Don’t reveal the answers until the class has given you their thoughts. Use these answers as a discussion item.

PROJECT: QUESTIONS

1. Is this a reportable incident or dangerous occurrence?

Answer: The incident resulted in serious bodily injury so it becomes a reportable accident (regulation 8).

Herbert’s hand was crushed. He was admitted to the hospital and is waiting to have surgery on his hand. He would be in the hospital for longer than 72 hours.
PROJECT: QUESTIONS

4. What must you include in an investigation report requested by an OHO?

Answer:

- A description of the incident
- Any graphics, photos or other evidence that may assist in determining the cause or causes
- An explanation of the cause or causes
- The immediate corrective action
- The long-term corrective action or reasons for not taking action

WHAT OTHER TYPES OF INCIDENTS MUST YOU INVESTIGATE?

Review regulations 85 and 311 with the class. Explain the differences between these regulatory requirements and those of 29 and 31.

Regulation 85, Exposure to infectious organisms, requires the employer to investigate any occurrence of work-related exposures to infectious materials or organisms that have been identified in an approved manner as an infectious disease hazard (e.g., hepatitis and tetanus).
Conduct exposure incidents in a manner that respects the confidentiality of the exposed person. The employer has a responsibility to consult with the OHC in the implementation of the exposure control plan, including the investigation of exposure incidents.

This may mean that the OHC periodically reviews a summary of exposure incidents (that does not include personal or medical information) and recommends improvements to control measures.

In some cases, an employer may assign direct involvement in the investigation to the co-chairs (e.g., in the event of an exposure that results in lost time). In this case the OHC must takes steps to protect personal and medical information. Involving the entire OHC in individual exposure incidents would not respect the need for confidentiality.

**WHAT OTHER TYPES OF INCIDENTS MUST YOU INVESTIGATE?**

Regulation 311, Exposure to hazardous substances, requires the employer to investigate (in consultation with the OHC) potentially harmful exposures to any substance listed in Table 19 or 20 of the regulations.

Examples: Exposures resulting from accumulations, spills or leaks.

Regulation 311 lists the content of investigation reports.
WHAT OTHER TYPES OF INCIDENTS MUST YOU INVESTIGATE?

Potentially harmful injuries, illnesses and conditions that do not require hospitalization.

Examples: Chronic illnesses, musculoskeletal injuries, (regulation 81), etc.

Regulation 32 requires that the employer report any lost-time injuries to the co-chairs, the representatives or their designates.

LEGISLATION SUMMARY

Review what you’ve covered and answered questions.

OPTIONAL: If students used flipcharts during the Icebreaker Project, show how you have covered this material.

The legislation prescribes:

- What incidents must be reported to OHS Division;
- What incidents must be investigated and by whom;
- What information must be in notices sent to OHS Division; and
- What information must be in reports requested by officers.

Investigate any incident that could have hurt someone. Often investigations of even minor incidents uncover problems that could cause serious injuries in the future.
PART II: C.A.R.T. INVESTIGATION TECHNIQUES

Now that we’ve covered the regulatory requirements, we’ll move on to how to conduct an investigation. The information in Part II exceeds what the law requires.

C.A.R.T. STEPS

Provide an overview of C.A.R.T.

These steps may exceed regulatory requirements, but OHS Division encourages OHCs to use this method when conducting investigations:


2. Analyze evidence. Find the direct, indirect and root causes.


4. Take action. The employer takes corrective action to address the immediate and root causes. The OHC or representative checks the effectiveness of the employer’s actions.

Taking action was covered in Level 1 OHC training.
SUPERVISOR INVOLVEMENT

Before moving on, it is important to explain the role of the supervisor when an incident happens.

Supervisors have a big impact on what happens at the workplace. This is especially true when an incident takes place and have a vested interest when incidents happen in their area. They know the workers and what jobs they perform. They must know the employer’s health and safety system and the OHS regulations that apply to the workers they supervise.

When it comes time for an investigation, supervisors know the questions to ask to gather the required information and to help determine the cause or causes of the incident. They can provide crucial information when recommending corrective action.

Supervisors are often part of the first response team when an incident occurs. They must be familiar with the employer’s emergency response plan.

HOW THE SUPERVISOR CAN HELP

When an incident happens the supervisor can:

- Secure the scene, summon emergency crews, have the injured transported to hospital, etc.
- Report to the appropriate authorities (internal and external)
- Take notes and make sketches outlining what happened
• Get witness names and contact information

• Brief and support the OHC investigation team

Never begin an investigation until the incident site has been made safe.

Talk to the supervisor as soon as you can to get an idea of what happened and who was involved. Ask the supervisor to make witnesses available for interviews.

Try to keep witnesses from talking to each other to avoid contamination of information.

The employer can help supervisors by ensuring they have the training and resources they need to conduct an investigation.
1:00 Objective 2

Objective: How to collect evidence for an investigation

Core messages

OHC investigations require collecting evidence. Committees must know what evidence is important to collect. Collecting evidence goes beyond just evidence from the specific incident site. Evidence that may provide insight as to what happened before, during and after the incident must be collected. This collection process, along with the analysis of the evidence (Objective 3) will help determine why an incident occurred. Objective 2 addresses:

- Physical evidence
- Documentary evidence
- Collecting samples
- Making sketches, graphics and photos of the incident scene
- Conducting research to gather more specific evidence

One of the essential steps in an investigation is interviewing witnesses. Objective 2 provides direction about the interviewing process.

OHCs will learn:

- Who to interview
- How to plan an interview
- How to conduct an interview
- Questioning techniques

Minimum content

Lecture and associated teaching points.
OBJECTIVE 2: HOW TO COLLECT EVIDENCE FOR AN INVESTIGATION

When an incident happens, the employer’s emergency response system should stabilize the scene and make it safe for the investigation team. The supervisor collects initial evidence, such as names of witnesses and provides the investigation team initial information about the incident.

Objective 1 focused on the legislated responsibilities for investigations. Whether it’s providing a notice to OHS Division of an incident or conducting specific investigations, the incident investigation essentially involves collecting and analyzing information.

Students must be able to identify at least three types of evidence that can provide information about the possible causes of an incident.

Collecting information can be difficult and time consuming. Physical evidence may be damaged, lost or lacking. Relevant documents may not exist, be out of print or inaccessible. Witness statements can be contradictory or sketchy. Each piece of information may generate more work. It will be a challenge, but the investigation team must work hard, be persistent to find out what really happened — and what can be done about it.

BEFORE YOU COLLECT EVIDENCE

You may already be at the incident scene or you may be on the phone getting information about what happened. One of your first objectives is to get the big picture regarding the incident. Ask questions that will give you insight about the workers, equipment, materials and the site itself:

- What was taking place at the time of the incident?
- Who was involved and might have seen what happened?
- What machinery, equipment, tools, chemicals, etc., were involved?
• Did something break or fail?

• Is training, maintenance, worker experience a factor?

Getting the big picture helps you get started. Some of the information about the big picture may be from talking to someone at the scene. But if this person was directly involved in the incident or first on the scene, their account of the incident is just one view and may not be entirely correct.

You will not understand the big picture totally until you are at the scene yourself. Even then it may be hard to find out what exactly happened. Asking questions will help you start gathering all the pieces of this puzzle.

COLLECTING EVIDENCE

Evidence includes:

1. Physical evidence and material objects, such as debris, broken parts, tools, equipment, machinery, supplies, chemicals, biological materials, gases, etc.

   Identifying, collecting, labeling, verifying and storing evidence is one of the first things that the incident investigation team does.

2. Documents, such as maintenance records, training records and vehicle circle checks, crane logs, safe operating procedures, inspection reports, safety program items, OHC minutes, SDSs, etc.
3. Witnesses

Interview any person that likely has information to help you effectively analyze the incident. Witnesses include both eye witnesses and others with information.

Essentially, your investigation involves collecting evidence, analyzing the information it provides and developing recommendations. The quality of your report’s recommendations depends on how well you collect evidence.

PHYSICAL EVIDENCE

Use physical evidence to:

- Find out what happened before, during, and after the incident;
- Suggest technical factors that may have contributed to the incident;
- Help develop witness interview questions; and
- Jog memories.

EXAMPLES OF PHYSICAL EVIDENCE

Use the chart in the workbook to review the types of information that physical evidence can provide.
Some specific evidence can be analyzed while the OHC is in the collection process. When checking each item, the OHC can start analyzing what they observe and consider how it might have played a factor in the incident.

Don’t come to any quick conclusions. Wait until the investigation team has collected all the information. Information the OHC learns later in the investigation may change original thoughts about the incident.
Specific physical evidence will provide insight as to what might have taken place. Even while physical evidence is collected, documented and photographed it can start to be examined. There are specific things that you need to consider and look for:

Check equipment, tools and facilities, etc., for signs of failure, breakage, abuse, misuse, inadequate maintenance or non-use. See if key parts were missing, broken or out of place before the incident.

Check operating controls, safety devices (e.g., guards, interlocks, etc.) and control indicators (e.g., dials, readouts, instruments, position indicators, etc.) to see if they were working properly.

Check damage and wear patterns, skid marks, the direction of debris, etc., to gather information about what happened before, during and after the incident.

For complex examinations, think about developing a checklist to help you organize items like equipment, electric schematics, plans, etc. Preparing these items in advance and putting together an incident investigation kit will help to keep your investigation organized, efficient and effective.

**PHYSICAL EVIDENCE SAMPLES**

Samples can tell you why tools, equipment or machinery failed or malfunctioned. Samples may also lead you to determine if defects played a role in the incident.
Samples can also identify if chemicals, biological hazards, noise, etc., were present at the incident.

The concentrations and length of exposure will require specialized people and/or testing equipment to determine specific levels. This exposure may have played a part in the incident. If specialized people are involved, the OHC or representative must be kept informed.

**HANDLING PHYSICAL EVIDENCE**

Take appropriate safety precautions when handling any evidence. There could be hazards at the site, such as leaks of flammable or poisonous substances, unstable structures, etc. Some specimens could be contaminated with chemicals or biohazards.

Systematically identify, collect, verify, record, store and analyze physical evidence to help find out what caused the incident. Don’t trust your memory. Use photographs, sketches, etc., to record each specimen and identify its position at the site before it is removed.

Record who removed each item, where it was stored and who has control over it. Label each specimen and store in clean storage containers.

If possible, do not remove evidence until witnesses have been interviewed. An intact incident scene sometimes helps witnesses remember events more clearly.
When appropriate, mark the locations of evidence you have removed with spray paint, tape, or chalk. This may help you if the incident scene has to be looked at again later.

**TAKE PHOTOGRAPHS OR VIDEO**

Use photographs and video to document the site and specific pieces of physical evidence. When you are taking pictures move from general (wide angle) to specific (normal lens or close-up) shots.

Shoot key parts of the scene and pieces of evidence from more than one angle or direction to provide better information. However, move the camera and not the specimen if you need more than one angle.

Have some way of identifying direction, size and distance for each item. Think about putting a ruler or some other object of a known size into photographs of specimens. Use a log sheet to track photos and video segments.

Many cameras can print the date and time on each negative or slide. In some cases, this can be useful. In other instances, this feature can obscure evidence. If so, use a written log instead.

Don’t forget to also take notes of what you observe. Don’t rely exclusively on photos.
CREATE SKETCHES, SCALE DRAWINGS AND MAPS

Scale drawings and maps can come in handy if the site is disturbed, or equipment is moved before the team completes the investigation. Use maps to get a bird’s-eye view of the site.

Encourage supervisors to make sketches, drawings and maps immediately after the incident.

Obtain copies of the employer’s maps and drawings of the plant or worksite. Make more detailed maps and drawings of the incident scene as soon as you arrive and get initial statements from witnesses.

Identify the locations, directions and dimensions of key debris, equipment, etc. Put direction indicators on your documents.

Don’t try to make a perfect picture. Concentrate on recording information rather than producing artwork.

Use these materials to test your theories about what caused the incident.

COLLECT DOCUMENTARY EVIDENCE

Documentary evidence can include:

- Standards (e.g., legislation, standards set by the employer, etc);
- Technical information;

Collect documentary evidence

- Standards and technical information
- Inspection and investigation reports
- Records (e.g., training, maintenance, repair logs, etc.)
- Research
- Employer’s health and safety system

Page 109 in the workbook.
• Reports (e.g., consultants’ reports, etc);

• Records (including OHC minutes, orientation and training records, work procedures, policies, plans, procedures, etc);

• Research (workplace monitoring, etc); and

• Employer’s health and safety system (policies in the safety manual).

### Types of documentary evidence

<table>
<thead>
<tr>
<th>Standards and technical information</th>
<th>Reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Policies, procedures, plans, programs and work procedures</td>
<td>• Inspection reports</td>
</tr>
<tr>
<td>• Requirements set by the employer</td>
<td>• Investigation reports dealing with similar incidents</td>
</tr>
<tr>
<td>• Regulatory and industry standards</td>
<td>• Computer files, photographs, video, diagrams and drawings</td>
</tr>
<tr>
<td>• SDSs and other technical information from suppliers, safety associations, etc.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Records</th>
<th>Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Orientation and training records</td>
<td>• What are other organizations doing?</td>
</tr>
<tr>
<td>• Shift records</td>
<td>• Experience of others in the industry</td>
</tr>
<tr>
<td>• Maintenance files</td>
<td>• Changes made in other organizations</td>
</tr>
<tr>
<td>• Worker concerns and OHC minutes</td>
<td>• Internet</td>
</tr>
<tr>
<td></td>
<td>• Health and safety publications</td>
</tr>
</tbody>
</table>

### DOCUMENTARY EVIDENCE

Use the information you get from documentary evidence to help you:

• Determine worker training;

• Understand a safe operating procedure, or determine a safe work practice;
• Identify witnesses to interview and questions to ask;

• Check witness statements; and

• Monitor the effectiveness of the employer’s health and safety system.

CONDUCT RESEARCH

You can use the internet, journals and books to benchmark the factors surrounding the incident. Find out:

• What others in your industry are doing about the issues surrounding the incident;

• Have they had similar incidents and, if so, what were the causes; and

• What changes they have made.

DRIBBLES PLASTICS INCIDENT SCENARIO: COLLECT EVIDENCE

Now that you’ve covered how to collect evidence, have the groups practice. The class will use the Dribbles Plastics incident scenario.

Each table will review the scenario and start gathering physical and documentary evidence. You want to ensure everyone understands doing a thorough job here helps to set the stage for the next part of the investigation process, interviewing witnesses and analysis.

After you present the instructions give each table time to record physical and documentary evidence from the Dribbles Plastics incident. Have them identify two or three pieces of physical or documentary evidence they would collect during this investigation.
Next, consider what information each piece of evidence might provide. Ask them to record their discussions in the workbook. Have a spokesperson from each group be prepared to share your answers with the class.

**INSTRUCTIONS**

Use the Dribbles Plastics incident scenario to practice what we learned about gathering evidence. Your group (your OHC) will discuss and gather physical and documentary evidence.

As you discuss the physical and documentary evidence record your answers on page 112 of your workbook.

Use the left column of the table to identify two or three pieces of physical and documentary evidence. In the right column, record what information each piece of evidence might provide. R

Could a piece of evidence be both physical and documentary? Keep this in mind when recording you answers and be prepared to share your group’s answers with the class.

You can use the regulations to help identify evidence and information.

Do not advance to the next slide until all the groups have discussed the project questions. Give each group (spokesperson) an opportunity to share their discussion with the class. We have provided you with some possible answers in the answer key below.

The answers will appear on each slide with a click of the mouse. Don’t reveal the answers until the class has given you their thoughts. Use these answers as a discussion item.
### QUESTIONS AND ANSWERS

#### Evidence

<table>
<thead>
<tr>
<th>Problem</th>
<th>Information provided</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machine jams, dribblers twist</td>
<td>Machine is not working properly</td>
</tr>
<tr>
<td>Workers jogging the start/stop switch</td>
<td>Correct and incorrect operating procedures for Dribbler</td>
</tr>
<tr>
<td>Worker reaching into machine to clear jam</td>
<td>Reporting procedures for machinery maintenance and repair</td>
</tr>
<tr>
<td>Workers not reporting broken switch</td>
<td>What procedure should have been followed and enforced?</td>
</tr>
<tr>
<td>Workers trying to repair machine</td>
<td>Legislation and industry standards</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Condition of machine</th>
<th>What does the law require?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition machine has contributed to incident</td>
<td>What is industry best practice?</td>
</tr>
</tbody>
</table>

#### Information provided

<table>
<thead>
<tr>
<th>Condition of machine</th>
<th>Operating and maintenance procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety devices on machine are not working properly</td>
<td>Condition machine should have been kept in</td>
</tr>
<tr>
<td>Wiring has been creatively improved</td>
<td>Operating and maintenance procedures</td>
</tr>
<tr>
<td>Cover over electrical components missing</td>
<td>Condition machine should have been kept in</td>
</tr>
<tr>
<td>Spring-loaded power safety switch not working</td>
<td>Operating and maintenance procedures</td>
</tr>
<tr>
<td>Front cover off dribbler</td>
<td>Condition machine should have been kept in</td>
</tr>
</tbody>
</table>

### COLLECT EVIDENCE BY INTERVIEWING WITNESSES

OHC members and employers need to be able to conduct effective witness interviews. It will take time for students to become skilled at interviewing. They will improve through good planning and preparation.

Witnesses often provide information that is critical to determining out what caused the incident. Conducting effective witness interviews is crucial to the success of your investigation. That is why it is important to plan your interviews carefully and use experienced interviewers if possible.

Page 115 in the workbook.
If an experienced interviewer is not possible, then it is up to you to conduct a good interview and gather more information about an incident.

Since witness recollections are notoriously unstable, it is important to interview within 24 hours of the incident (whenever possible) while memories are still fresh. Interviewing promptly keeps information reliable, detailed and accurate.

If possible, keep witnesses from talking with each other about the incident before they are interviewed. This avoids contamination (i.e., all stories are the same — the stories of dominant persons become accepted by everyone).

**PLAN THE INTERVIEW**

One of the initial activities you do when you first arrive at the scene of an incident is to get the names of the people who were there, specifically the names of those who saw what happened. Others may become important because of their relationship to the incident (e.g., the supervisor, a maintenance or repair person who worked on the equipment involved in the incident). All these people become potential witnesses that have information you may need.

Planning involves identifying who you want to interview and the information each witness likely is able to provide. You will use the physical and documentary evidence you gathered to help you in this planning process.

Someone who saw the incident will provide different information than someone who provided training two weeks before the incident happened. So the questions must be relevant to who you ask.
When it comes time to conduct the interviews, arrange in an appropriate location. A neutral place where interviews can be held in private without interruptions will help to relax the witness and make it easier for you to get information. A poor location with interruptions every two minutes distract the witness. It is very frustrating to both parties.

Break for lunch at an appropriate time. After lunch, summarize the morning and provide a quick overview of what will be covered in the afternoon.

If witness interviews start before lunch, give the characters their scripts and instructions before the break to allow them to prepare.

**PLAN THE INTERVIEW**

Start by interviewing those who were involved in the incident, saw it or were first on the scene. Example: Interview the incident victim(s), the supervisor and those who were first on the scene.

If you don’t interview these people within 24 hours of the event, they may forget important details.

Next, interview those who know something about what was going on before the incident. Example: Interview the supervisor of the previous shift and any workers who were using the equipment or performing the job involved in the incident. Find out if supervisors and workers in nearby areas have useful information.

Finally, interview technical specialists who are familiar with the technology and work practices involved. Example: Interview supplier representatives about the hazards of the equipment, chemicals or safe work practices associated with the job. The person who provided training will have important information. Someone involved in the building maintenance or repair is another potential source of information.

Conduct follow-up interviews and re-examine physical and documentary evidence as new information surfaces.
CONDUCT THE INTERVIEW

An incident investigation interview is not an interrogation. OHC incident investigations find facts and do not fix blame. The role of the OHC is to help determine what happened and why, then recommend corrective actions so it does not happen again.

Treat everyone with courtesy and respect. Be sensitive to the emotional condition of each witness.

Create an informal environment. Avoid barriers between you and the person interviewed. Example: Sit on the same side of the table as the witness.

Reassure each witness. Make sure each witness knows why they are being interviewed and what the interview is for. Some witnesses may think that the real purpose of the interview is to find out who to punish. Make it clear that the purpose of the interview is to find what caused the incident and not to find blame. Put each witness at ease. Start with questions that are easy to answer.

Keep the interview on track. Use your interview plan. Ask questions that require specific answers to keep statements from wandering. Don’t rush. Tell each witness that they can help prevent another incident by sharing what they know.

Tell each person if and when they will be asked to come for follow-up interviews. Encourage them to contact you if they have any questions or remember something new.
CONDUCT THE INTERVIEW

Get their version. You want to learn what the witness saw and experienced. Their version will or could be different from someone else’s. Each person’s story may offer a unique clue or hint that could be crucial in determining what happened and why.

Expect contradictions and conflicts in witness statements. This is normal. People interpret information differently. The same events seen from different angles and distances may look different.

To help evaluate reliability compare the answers of witnesses to the standard questions you prepared beforehand.

Take notes and record critical information. It becomes a challenge if you have to interview the witness and keep notes at the same time. You could let the witness answer the question first. Don’t interrupt. Then when they’re finished, go back and record what they said.

You may have to record a small piece of information at a time. Prompting them to re-answer the question in parts as you record their comments. It’s important to get their version.

If you use witness statements, review the transcript of each witness statement and clear up uncertainties before it is finalized. Remember their statement is their own. If you paraphrase what they said, they must agree to the words you choose. A good practice is to have the witness sign each completed statement. Make two copies — one is your record of the interview, the second is their copy.
QUESTIONING TECHNIQUES

There are many different techniques used to conduct interviews. The following will give the class some helpful ideas and get them started. Interview skills improve with experience. The first-time interview may be a challenge, but skills will improve.

Be an active listener. Keep an open mind. Begin by establishing a positive interview climate and gathering basic information from each witness. Ask questions to gain knowledge and get details about the incident. What happened before, during and after an incident is important. Use questions to clarify the physical and documentary evidence from the incident scene.

There are many ways to ask interview questions. Example: Some interviewers begin by letting the witness give an entire account of their story. When they are finished the interviewer will start with specific questions. Some interviewers may set the tone at the beginning with pre-designed questions. The interview process is up to the interviewer and their plan.

Think about how to ask questions:

• Ask a specific question. Example: “What time did you arrive at the scene of the incident?”

• Then ask a clarifying question. Example: “Who else was there?”

Pause for a few moments to give the interviewee a chance to remember events and provide additional information.
Then ask an open question. Example: “Can you describe the position of the damaged tools, equipment and machinery?” The interviewee cannot answer just yes or no to open questions. These types of questions get the interviewee presenting more information.

But you may need to ask a closed question. Example: “Were you driving the forklift?” The interviewee can only answer yes or no. These types of questions are used to verify a specific detail.

You may need to jog a witness’s memory. If necessary, use visits to the site, drawings or photographs.

DRIBBLES PLASTICS INCIDENT SCENARIO: INTERVIEW WITNESSES

In this part of the Dribbles Plastics project, students will participate in mock interviews. While some OHCs ask the employer to handle witness interviews, others do it themselves. Usually the co-chairs conduct the interviews.

If any of the students in a group have conducted interviews before (e.g., police officer, medical professional, social worker, etc.), suggest they become one of the witnesses. This gives someone with less experience a chance to try their skills at interviewing. The members with interview experience become observers and can pass on interview tips (as long as they are comfortable with this role).

INSTRUCTIONS

Using the Dribbles Plastics incident scenario, each group (or OHC) will conduct interviews to gather more information about the incident. Each OHC will select people to become co-chairs and witnesses.
Use the Dribbles Plastics incident scenario to interview witnesses.

Select a worker and employer co-chair to interview the witnesses. Give people who don’t have interview experience the chance to be a co-chair.

The others at the table who will become the witnesses to be interviewed. You need a Herbert the injured worker, the maintenance engineer, the supervisor and Delbert the owner.

**INSTRUCTIONS**

When the interviews are complete, the groups will discuss what they learned from each witness. When the interviewers take notes, do a good job to capture what the witness is saying. These statements become evidence.

Before conducting the interviews, develop some questions to ask the witnesses. Spend a few moments figuring out:

- What information do you want from each witness?
- What questions are you going to ask?
- Who is going to take statements and notes?

The workbook provides sample questions to help you start planning the interviews. Take some time to review these examples. How does a particular question match to the person you will interview?
<table>
<thead>
<tr>
<th>Information to determine</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Who</strong></td>
</tr>
<tr>
<td>Who do I need to talk to in order to understand what happened?</td>
</tr>
<tr>
<td>Who was involved (e.g., injured worker(s), supervisors, witnesses, first responders, etc.)?</td>
</tr>
<tr>
<td>Who did what before, during and after the incident?</td>
</tr>
<tr>
<td><strong>What</strong></td>
</tr>
<tr>
<td>What work was being done before and at the time of the incident?</td>
</tr>
<tr>
<td>What had the supervisor asked the workers to do?</td>
</tr>
<tr>
<td>What supervision and training were provided?</td>
</tr>
<tr>
<td>What was being used to do the work (e.g., tools, equipment, machinery, supplies, chemicals, etc.)?</td>
</tr>
<tr>
<td>What was the condition of the work environment before, during, and after the incident (e.g., weather, noise, chemical smells, temperature, distractions, etc.)?</td>
</tr>
<tr>
<td>What tools, equipment, supplies and people were brought to the incident scene to respond?</td>
</tr>
<tr>
<td>What was moved or repositioned after the incident (including casualties)?</td>
</tr>
<tr>
<td><strong>Where</strong></td>
</tr>
<tr>
<td>Where did the incident occur?</td>
</tr>
<tr>
<td><strong>When</strong></td>
</tr>
<tr>
<td>When did the incident happen (time, shift, etc.)?</td>
</tr>
<tr>
<td>When did you find out about the incident?</td>
</tr>
<tr>
<td>When did products, supplies and workers, involved in the incident arrive?</td>
</tr>
<tr>
<td><strong>How</strong></td>
</tr>
<tr>
<td>How was the work being performed at the time of the incident?</td>
</tr>
<tr>
<td>How was the work involved normally performed?</td>
</tr>
<tr>
<td>How did the response and rescue crews perform?</td>
</tr>
<tr>
<td>How do you think a similar incident could be avoided? (Each person’s views may help you develop recommendations for corrective action.)</td>
</tr>
</tbody>
</table>
For each witness you need specific information. Here are some suggested thoughts to help you get started organizing your interview plan.

- For the injured worker, you need to determine what they were doing.

- A maintenance engineer could tell you something about the machine the injured worker was using.

- A supervisor can offer information about training and the details about how they supervise the work.

- An employer can describe how their health and safety systems are organized.

Don’t forget you gathered some physical and documentary evidence. Check that over. Does the evidence lead you to ask certain questions about the incident? Consider creating questions from that evidence.

### INTERVIEW WITNESSES

These are the people you will interview:

- Herbert the injured worker

- The maintenance and sanitation engineer who witnessed the incident

- The supervisor
• Delbert the owner of the company

In your OHC, create two questions for each person that you will interview. Record these questions in your workbook.

These questions will be the starting points for your interviews. Depending on the answers to these questions, you may have additional questions to ask. You need to dig deeper to find out the important information around the incident.

Walk around the room, to keep the groups on track when creating their starting questions. Keep them moving along.

You should have two questions for Herbert.

When that’s done move on to the maintenance and sanitation engineer, etc.

THE SCRIPTS

Once everyone has had a chance to create two questions, give the scripts to each witness. Go from table to table. Call each of the witnesses (by character) and hand them their scripts.

• Herbert
• Maintenance and sanitation engineer
• Supervisor
• Delbert

Give the students a chance to read through the script. Remind them that they become this person. The script gives them information on how to answer the questions asked by the interviewer.

After they have had time to read the scripts, the OHCs can begin the interviewing process. Remind the class other people at each table were selected as co-chairs and will conduct the interviews.
The co-chairs will interview the injured worker first, the maintenance and sanitation engineer who saw the incident next, then the supervisor and finally Delbert.

If you have extra people at the table have them record the answers. If the co-chairs ask additional questions, remind the to write down the question and the answers.

Start interviewing the people involved in the incident.

- Make your notes complete, specific and legible.

- Keep separate notes for each interview.

- Use notes to help plan subsequent interviews.

- Don’t try to take notes and interview at the same time.

Have one person take notes and another conduct the interview. If one person is responsible for both, prepare notes immediately after each interview.

Concentrate on recording important facts — don’t try to record everything.

Walk from table to table during the project and provide help to those who need it. Don’t let the interviews drag on or get into innumerable questions. Keep the project moving.

When you feel the class has had time to complete the interviews for stop the interview process.

[OPTIONAL] Did anyone observe the interviewer asking the questions? If someone did, this is the time to provide feedback to the interviewer.

[OPTIONAL] Do this only if the students are comfortable providing feedback. Did the interviewers:
• Interview each witness separately.
• Make each witness feel at ease and tell each one that the purpose of the interview is to prevent another incident and not attach blame.
• Tell each witness what will be done with the information.
• Ask open-ended questions that cannot be answered with a yes or no.
• Allow each witness to explain what happened in their own words.
• Listen actively, periodically summarize and feed back key points to check understanding.
• Prepare a transcript? If the interviewers couldn’t complete a statement transcript at each interview, did they set up an appointment with each witness to review it.
• Prepare a transcript? If the interviewers completed a statement transcript at each interview, did they review it with each witness and ask him or her to sign it.
• End each interview on a positive note.
• Tell each witness what will happen next.

Some of these points you can tell are from experienced interviewers. In this exercise, most interviewers barely get to ask the questions and record the responses let alone do the other activities in this list.

Do not advance to the next slide until all the groups have discussed the project questions. Give each group (spokesperson) an opportunity to share their discussion with the class. We have provided you with some possible answers in the answer key below.

The answers will appear on each slide with a click of the mouse. Don’t reveal the answers until the class has given you their thoughts. Use these answers as a discussion item.

Review the possible answers for each witness.
WHAT DID YOU LEARN FROM HERBERT?

The groups should get some of the following points:

- Workers were using unsafe work practices (regulation 13).
- Worker had never seen an operator’s manual.
- Inexperienced worker showed Herbert how to use the machine.
- Inadequate supervision (regulation 17), orientation, induction and job training (regulations 18 and 19).
- Employer had not trained Herbert adequately to operate the machine safely or ensured he was competent (regulation 134).
- Lockout procedure is inadequate and not enforced (regulation 136) and the safety controls and guards on the dribbler are defective (regulation 137).
- The piece rate pay system rewards production, not safety.
- Herbert reached between the rollers and the machine activated before he got his hand out, causing injury.
- Left hand will require extensive surgery.

WHAT WAS THE MAINTENANCE AND SANITATION ENGINEER’S ROLE?

The groups should get some of the following points:

- Saw the incident — the machine started and closed on Herbert’s hand.
- Herbert took the cover off the machine.
- Herbert jogged the machine with his right hand and reached in with his left hand.
- Used manual hand wheel to get Herbert’s hand out.
- Certified to repair boilers, steam pressure vessels, furnaces, industrial air conditioners, but not dribblers.
- Has never seen a service manual.
- Had never seen a service manual.
• Not aware the machine was rewired or the emergency switch was not working.

• Maintenance system is not adequate. The maintenance and sanitation engineer is not competent to repair plant machinery. It takes so long to repair the dribbler that workers are tempted to repair it themselves.

• There is no effective way to identify and control hazards. Unsafe work practices are tolerated by the employer.

WHAT WAS THE SUPERVISOR’S POSITION?

The groups should get some of the following points:

• No one reported any problems so supervisor assumed everything was good.

• Dribbler’s operators and maintenance manuals are locked in the boss’ office.

• Dribbler is old and the manufacturer no longer in business.

• Did not know workers were jogging machine.

• Has not reviewed lockout or machine repair policy with workers.

• No training on how to be a supervisor.

• No safety program at this workplace.

• Supervisor selection processes may be suspect. Good workers don’t always make good supervisors.

• Supervisor hasn’t been trained and prepared for the job by the employer and is not enforcing safe work practices adequately (regulation 17).

• Supervisor doesn’t know what is happening on the shop floor (because of the location of the supervisor’s office and the work the supervisor has been assigned by the employer).

• Employer’s expectations of supervisor are unclear (i.e., Does the employer want paperwork processed or safety maintained on the floor?)
• Supervisor can’t get access to equipment manuals and has no way of figuring out what procedures should be used with the dribbler.

• Employer was aware that the dribbler needed replacing, but did not take action.

WHAT IS DELBERT’S OHS PROGRAM LIKE?

The groups should get some of the following points:

• Employer has not provided a safe and healthy workplace or complied with applicable health and safety regulations.

• Employer preoccupied with sales and does not have the time required to devote to safety.

• Delbert has been meaning to set up a safety program.

• First serious incident in some time.

• Supervisor is key man in safety.

• Learned everything about safety from father who was killed in an incident in previous plant.

• Herbert was careless and the supervisor is incompetent (i.e., failed to enforce company safety rules).

• Proud of record with the WCB (premium rebates).
Objective 3

Objective: How to analyze evidence for an investigation

Core messages

OHCs must be able to analyze physical, documentary and witness evidence identified during an incident investigation to prevent re-occurrences. OHC’s will need to identify the following factors and causes.

- **Analyze the incident factors.** People, material, environment, work process and system factors play a role in an incident. The OHC must be able to determine how these factors contributed to the incident.

- **Determine the direct cause.** The OHC must be able to identify the direct cause of an incident.

- **Determine the indirect causes.** The OHC must be able to identify the indirect cause of an incident. The OHC or the representative and employer should determine what symptoms in the workplace played a role in the incident.

- **Determine the root causes.** The OHC must identify the root cause and underlying problem(s) that set the stage and events in motion that led to the incident. In many cases there may be more than one.

Minimum content

Lecture and associated teaching points.
OBJECTIVE 3: HOW TO ANALYZE EVIDENCE FOR AN INVESTIGATION

The evidence the OHC has gathered is the physical and documentary information, plus information from witness interviews. This gathering process takes time and effort.

Now what does the OHC do with all this information? It must be analyzed. What factors played a role in the incident? Were people involved? Was a piece of equipment used? Was a safe operating process a factor? These are questions that must be answered to find out how these factors played a part in the incident and why.

The what happened and why answers can provide ideas as to how to prevent a similar incident.

This section introduces direct, indirect and root causes as one type of method to analyze factors in an incident. The students will take what they learn in this section and apply a participation component.

Using the Dribbles Plastics incident scenario, each group will identify the direct, indirect and root causes.

ANALYZE EVIDENCE

Once you have collected your evidence, you must analyze it. Your analysis will give you insight as to what happened and why. You then figure out the causes and factors of the incident. From there, you prepare recommendations for the employer so controls can be put in place to stop a reoccurrence. To analyze the evidence we must identify:

- Incident factors;
- The direct cause;
- The indirect causes; and
- The root causes.
A simple, but effective way of finding the causes for an incident is to ask who, what, where, when and how for every essential event until you are satisfied that you know why the incident happened.

The OHC must review all the information collected. Training, equipment, materials and the workplace itself can play a factor in the incident. It could be one factor or a series of factors that set up or set the stage for the incident. Substandard actions or substandard conditions can play key factors in an incident.

Why is a worker not following a safe operating procedure? It may be because the worker was never trained properly in that particular safe operating procedure.

Why is an inoperative safety device on a machine? It could be because a poor inspection and maintenance schedule has allowed this situation to exist.

These scenarios could be conditions and standards that create an environment where workers become injured.

**ANALYZE INCIDENT FACTORS**

OHC’s will start looking at all the information gathered. Determine the damage, injury or illness is the first item to identify. What caused the damage, injury or illness will be next. Considering all the factors becomes very important in the investigation process. Factors like people, materials, the environment, work processes, and the employer’s health and safety system might have had an effect on what took place.

What were the working conditions? What specific acts were workers performing? Could these situations have played a role in the incident? Finally, consider what safety systems are in place. Were they adequate or lacking?

This information will assist the OHC/investigators understand what happened and why. Knowing this will help set up what needs to be done (i.e., controls) in the future to prevent another incident.

1. Go through each event before, during, and immediately after the incident.
2. Ask why each happened.

3. Evaluate the role of every factor:

   • **People factors** (supervision, training and orientation)

     Supervisor. Was there direct supervision? How did the supervisor communicate with the workers? What instructions were given at the time of the incident (i.e., verbal or is there written documentation of the instructions?) Are they in the form of a safe operating procedure? How does training and worker experience play a role in the incident? Was training and experience sufficient in this situation?

     Use personal experiences to provide more information on each factor.

   • **Material factors** (substances, tools, equipment, etc)

     What was the role of material factors, such as:

     Substances and materials. Was the worker exposed to a chemical that could have caused a blackout or dizziness?

     Tools, equipment and machinery. Was a safety guard off the machine? Is the safety shut off not working?

     Personal protective equipment.Were the correct gloves used based on what the SDS requires? Has the correct respirator been identified for that specific chemical?
• **Environment factors** (workplace conditions)

What was the role of environmental factors, such as:

Weather conditions. Did the cold affect what happened? Did the dark work area cause the worker not to see the lumber on the floor that caused them to trip?

Noise. Did the worker not hear the forklift coming down the ramp because the air compressor cut in and is very loud?

Shift work. It is this the third day of working midnight to 8 a.m. Could the broken sleep patterns have played a factor?

• **Work process factors** (work flow design)

What factors could ergonomics have played in this incident? Does the repetitive motion required to move all the boxes from the floor to the storage shelf become a cause to injury?

Is this workplace crowded? Does the lack of space cause workers to handle materials in an awkward manner?

Three machines are exactly the same, but the three controls for operation are in different positions on each machine. Could moving from one machine to another cause confusion?
• **System factors** (policies, plans and procedures)

How does the employer’s health and safety system impact the incident?

Example: Why did it take so long to get emergency crews out to the scene? Is it because the emergency response plan does not point out everyone’s responsibilities clearly when an incident occurs?

Lack of sound health and safety system factors can also help to determine why other factors existed. A poor orientation program (training for the first days on the job) can also explain why other training is not delivered. Regulation 22 is a great place to get an idea of what must be in an effective health and safety system.

**ANALYZE EVIDENCE**

The investigation team’s next step is to analyze the evidence. In order to understand what happened, what caused the incident, we need to link together all the evidence, factors, interviews, etc from the investigation.

From this analysis, you should be able to determine:

- The direct cause;
- The indirect cause; and
- The root cause(s) of the incident.

*This section may be challenging, especially if students have not worked with direct, indirect and root causes.*
When you get to determining root cause, often the lack of a good health and safety system in a company, may be the root cause itself. Health and safety systems that don’t inspect the workplace, or don’t provide workers with the correct PPE, or don’t properly train workers to do their job safely, can be the real causes that lead to incidents.

The OHC now determines the three causes (i.e., direct, indirect and root). This process takes practice. There are many tools available that can assist you in this process. When you return to your workplace check your employer’s health and safety system. See if they have a system to examine causes. If you are just getting started check out the resources and information available on the internet.

**IDENTIFY DIRECT CAUSE**

The direct cause(s) usually precipitates the incident and occur(s) immediately before it takes place. It often (but not always) involves an unsafe act or substandard condition.

You will often hear or read about the transferring of energy to the body that caused the injury. Actions described like struck against, struck by, caught in or on, fall to the same level, contact with, or release of, etc., are just some of the actions used to describe the direct cause.

Many of the factors we already covered will help determine the direct cause.
Example: A worker is struck by a hammer. The hammer head came off the handle. Here we have linked an energy release — struck by — to a tool factor — the hammer. In this case, the hammer head striking the person was the direct cause.

Understanding that unsafe act or substandard condition sets the stage for the direct cause. Answers to questions like ‘How was the hammer being used?’ or ‘What was the condition of the hammer?’ can also help to determine the direct cause. Understanding an unsafe act or substandard condition can assist with determining the direct cause.

When determining the direct, indirect and root causes, avoid jumping to conclusions. During the analysis of evidence, there can be multiple factors involved. You may be at a point in the analysis process where you think you know the answer. Reviewing additional factors may shed different light on the investigation and you will realize that your first insight needs more thought. More information in this situation should be looked at to help determine the direct cause that leads to the indirect and root causes.

**IDENTIFY INDIRECT CAUSE**

Indirect cause(s) set the stage for an incident. Indirect causes often involve unsafe acts and substandard conditions. The actions of the workers and supervisors, and the accepted practices by the employer of these unsafe acts and substandard conditions could be the indirect cause.

When the employer or supervisor allows short cuts on a standard operating procedure, these practices put workers at risk for injury. When performing a short cut over and over, this incorrect procedure then erroneously becomes the standard operating procedure.
Workers may not even remember the correct way of completing the task because the introduction of the incorrect standard operating procedure. It becomes the normal way of performing the job. This may cause an incident.

Some of the terms used to describe indirect causes are:

- Operating at improper speed
- Making safety devices inoperable
- Improper loading, lifting or placement
- Failure to follow procedures
- Inadequate guards or barriers
- Defective tools, equipment or materials
- Poor lighting
- Poor housekeeping
- Excessive noise
- Poor ergonomic conditions

Lack of training and supervision are factors that usually set the stage for these unsafe acts and substandard conditions.
Around 3 p.m., offer the class the choice of taking a 10-minute break and going to 4 p.m., or not breaking and finish early.

The OHC or the representative and employer should try to find if there were any symptoms of a problem before the incident. If so, ask questions.

Why were no concerns expressed? Why did hazard controls fail? Asking questions with the word why will help you get answers. Continue to ask questions using why. This should get to the correct answer eventually and help you determine indirect cause.

**IDENTIFY ROOT CAUSE(S)**

The root cause is the underlying problem(s) that set the events in motion that led to the incident. There may be more than one root cause.

Example: There may be several problems in the employer’s health and safety system that are setting the stage for the incident, like training and supervision issues.

Finding root cause(s) prevents both re-occurrences and other situations that may be created by the same underlying problems. Asking questions like ‘Why did the worker not follow the procedure?’, ‘Why is the guard off the machine?’, ‘How come the machine was never inspected?’ or ‘Why didn’t the worker receive any training?’ will give you insight into the root causes that are at the heart of the problem(s).

You need to determine who has control over situations you identify. Determining who has control will assist you to identify the root causes.
The employer holds the majority of responsibility for health and safety at the workplace, but the supervisor and worker also have their key responsibilities.

Lack of training by the employer will point to a poor safety training program. Not following procedures could point to lack of supervision. Guards taken off machines will point to a poor inspection and maintenance system.

From these examples, you start to get a sense of how the root cause like no training, poor supervision, etc., sets up an organization to fail, or a least have the potential for incidents that cause injury to workers.

DRIBBLES PLASTICS INCIDENT SCENARIO: ANALYZE EVIDENCE

Now that the class has discussed how to analyze evidence, students will get a chance to practice. The class will continue to use the Dribbles incident scenario. Groups will consider the factors, evidence, witness statements and how analysis will help determine what the direct, indirect and root causes are.

Doing a good job to determine these causes will help the OHC develop the controls that will prevent a re-occurrence. Have the groups take their time and record their discussions in the workbook.

After you present the instructions, give each group time to answer the three questions. They will identify the direct cause, indirect cause and the root cause. These answers should start the process in the next Objective 4 (writing a report). Have a spokesperson from each group be prepared to share their answers with the class.

INSTRUCTIONS

Review the project and what you expect. The material in the workbook will help the students complete this project.
Using all the physical and documentary evidence, the results of your interviews with witnesses, and the factors involved, your OHC will start analyzing to determine the incident causes.

Answer the questions in your workbook. Your answers will identify what the direct, indirect and root causes are for the Dribbles Plastics incident scenario. Have someone at your table be prepared to discuss your answers with the class.

Do not advance to the next slide until all the groups have discussed the project questions. Give each group (spokesperson) an opportunity to share their discussion with the class. We have provided you with some possible answers in the answer key below.

The answers will appear on each slide with a click of the mouse. Don’t reveal the answers until the class has given you their thoughts. Use these answers as a discussion item.

**QUESTIONS AND ANSWERS**

Use the answer slides if you need them. However, you should be able to get the information you need from the class. Your slides are set up to allow you to ask the question and then post the answer after the group has responded.

1. **What was the direct cause?**

   • Machine closed on worker’s hand.
   
   • Hand crushed.

The slides are set up so the question appears first. The answer will appear with the next click or enter.

The Dribbler starting unexpectedly when Herbert jogged it may be an answer many groups provide during discussion. You may also get lack of training or lack of supervision. These are indirect causes or symptoms of the real problem. Jogging is an unsafe act. The machine in disrepair is a substandard condition.
If you get these answers, ask them what injured the worker. It was the machine closing on the workers hand that caused the crushing.

QUESTIONS AND ANSWERS

2. What were the indirect causes?

- Jogging the machine. This is an unsafe work procedure.
- Defective machinery and safety devices coupled with inadequate maintenance (the controls and conveyor belt on the machine were defective and the safety devices didn’t work). This became the substandard condition.
- Inadequate supervision. This lack of supervision set the stage for the incident to take place.
- Non-compliance with OHS legislation. Regulations 134 (operation by workers), 137 (safeguards), 139 (locking out), 17 (competent supervision), 18 (duty to inform workers of regulatory requirements), and 19 (training of workers).

QUESTIONS AND ANSWERS

3. What were the root causes?

The root cause of the Dribbles Plastics incident scenario is an inadequate health and safety management system (starting with a lack of commitment). Root causes are the real causes behind incidents and the beginnings for unsafe acts and substandard conditions.

The root cause in this scenario is an employer with no health and safety system.
Because the employer has no health and safety system there is no way to make sure that:

- Hazards are identified and controlled;
- Equipment is inspected and maintained properly;
- Supervisors are competent and ensure workers comply with standards;
- Workers receive adequately orientation, training and instruction; and
- The workplace complies with the law.

When an employer, supervisors and workers follow a sound health and safety management system, the likelihood of something going wrong is reduced significantly. A sound health and safety system addresses hazards and develops ways to control the hazards. Creating policies and procedures ensures everyone complies with those policies and procedures.

The supervisor and workers play a key role in the compliance process. When you think of this Dribbles Plastics incident scenario, the root causes clearly identify that a sound health and safety system would improve the health and safety for everyone at this workplace.

**QUESTIONS AND ANSWERS**

4. Could an effective OHC have improved workplace safety?

Use this question to get the class thinking more about the OHC’s involvement in health and safety at the workplace. This question helps to support the teachings from Level 1 OHC training. The OHC assists the employer to ensure there is a healthy and safe workplace.
When the OHC performs its functions and duties as outlined in SEA 3-27, these actions help to raise the profile for health and safety in the workplace.

During OHS inspections and other activities, the OHC helps to improve health and safety at the workplace. The Dribbles Plastics incident scenario does not talk about an OHC specifically. If the Dribbles company had an OHC, they did not identify any of the hazards shown in this project. The lack of an effective OHC at this workplace is another symptom of problems in the employer’s health and safety system. An effective OHC could help improve health and safety at this workplace by:

- Conducting effective inspections;

- Effectively communicating with workers about health and safety concerns; and

- Monitors workplace compliance with OHS legislation.

The employer is responsible for the effectiveness of the OHC, and ensuring that members are trained in their duties and functions as outlined in the OHS legislation. Workers must help the employer and support the OHC.
Notes
2:30  Objective 4

Objective: How to develop a workplace investigation report

Core messages

OHCs will use all the investigation information gathered to prepare a report in simple, easy-to-understand language.

The report becomes a discussion item at the next OHC meeting. Most importantly, the report is the communication to the employer about what happened and why. It also outlines the action(s) to take so a similar incident never takes place again. As we learned in Level 1 OHC training the employer is responsible for taking corrective action.

The OHC needs to understand the SEA and regulations do not require a specific investigation report format. The employer and OHC should select a report format that meets the level of sophistication it requires.

An effective report must accurately:

Explain what happened and why;

Propose what must be done immediately to prevent the incident from happening again;

Propose what should be done in the long term to remove fundamental weaknesses in the health and safety system (if any) that led to the incident;

State who should take the corrective action and by what date(s) (i.e., deadlines);

State what resources are required (e.g., money, people, etc.); and

State who should follow up to ensure that the employer’s corrective action is effective.

Minimum content

Lecture and associated teaching points.
OBJECTIVE 4: HOW TO DEVELOP A WORKPLACE INVESTIGATION REPORT

A good investigation report becomes a communications tool — a tool for the OHC to report their findings, based on the investigation, that draw conclusions about what happened and why; but, most importantly, what can be done so the incident never takes place again.

Write the report in clear easy-to-read language (i.e., plain language). The report needs to identify important information like who, where, how, what, when and why. Using the direct, indirect and root causes from the previous objective provides information for the questions. The report must also contain what controls to consider to ensure the incident does not happen again. The OHC creates recommendations in the report that address the controls required. Consider and capture short-term and long-term controls in the investigation report.

Ultimately, the employer will decide what action(s) and controls to establish. The employer must comply with OHS legislation to ensure the health and safety of all their workers. The employer can follow the OHC’s recommendations or develop their own action plan(s).

Once the OHC is satisfied they know why the incident happened, they’ll submit their investigation report to the employer. In this objective you will learn what must be in the report and what happens following the report moving forward.

The reporting procedures for regulations 8 and 9 require the employer or contractor to notify OHS Division of the incident and provide a copy of the notice to the co-chairs. Regulations 29 and 31 require the employer or contractor to prepare a written report in consultation with the co-chairs.

It is important that the OHC and employer or contractor determine how to handle this process. Some arrangements may be that the employer accepts the OHC’s report, follows their recommendations and uses this as a final report. In other arrangements, the employer may choose to incorporate the OHC’s report into the employer’s final report. The employer makes the final determination about what corrective actions to take.
The investigation report must follow the legislation requirements that explain what happened and why. You can accomplish this by:

- Proposing what must be done immediately to prevent the incident from happening again; and

- Proposing what should be done in the long term to remove fundamental weaknesses in the health and safety system (if any) that led to the incident.

The law does not require the report to use a specific incident investigation report format. Select a report format that meets the level of sophistication you require.

When the OHC completes its report, who the report goes to is important. If the OHC sends the report to someone in the workplace that has no ability to take the necessary corrective actions, then the final steps in the investigation may be ineffective. A very important role of the OHC and employer is to determine an effective reporting process.

WHAT INFORMATION IS REQUIRED IN AN INVESTIGATION REPORT?

Your report should explain what happened and why. It must recommend action to correct both the direct causes of the incident and health and safety system failures (i.e., root causes).

Regulations 8, 9, 29 and 31 state what information is required in an investigation report.

Information required for regulations 8 and 9:

- Name(s) of each injured or deceased worker(s)
- Name(s) of employer(s)
- Date, time and location
• Circumstances related to the incident
• Apparent injuries
• Contact information

Regulations 29 and 31 require additional information:
• Description of the incident
• Graphics, photos or other evidence
• Explanation of the cause or causes
• Immediate corrective action(s) (i.e., short term)
• Any long-term action(s)

It is important that the OHC provide the information the OHS legislation requires in their investigation report. Include the direct, indirect and root causes in the report to support the corrective actions recommended by the OHC.

**INVESTIGATION REPORT**

Include the following items:

• Suggested corrective (both short-term and long-term solutions)

• Who should take the corrective action and by what date(s)

• Resources required (e.g., money, people, etc.)

• Who follows up
OHC INVESTIGATION AND FINAL RECOMMENDATIONS

The following are tips from Level 1 OHC training for developing recommendations. OHCs should follow a process when developing recommendations.

As the instructor, you have the option to speak just to the slide or go into more detail about final recommendations. Depending on your group’s ability and understanding this review may be necessary.

- Identify the factors and causes that lead to the incident (e.g., people, material, environment, work process and system) and causes (i.e., direct, indirect and root)

- Research the issues. Review relevant legislation, standards at other workplaces, equipment manuals, SDSs, records, diagrams, etc., before making recommendations. Look for the underlying causes.

- Select practical choices. Review the alternatives and select those with the most chance of success. Prepare several potential solutions. Consider controls at the source, along the path to the worker and at the level of the worker.

Develop short-term measures to deal with the immediate causes and long-term solutions to remove the root causes. Outline the advantages, disadvantages and costs of each option. Consider the consequences and costs of not implementing each solution.

Reach agreement. Use discussion and consensus to gain agreement. Plan an implementation schedule (such as who does what, by when, etc.) for each recommendation. Ensure co-chairs sign the final recommendations.
• Present the recommendations. Present recommendations in easy-to-read written language. Use the OHS legislation when writing a recommendation. Site the section of the legislation. Even use the specific wording of a section to help write and support your recommendation.

• Follow up. Keep the employer and workers informed while corrective action is taken. Check the effectiveness of the improvements during the next inspection. Assign someone on the OHC to do the follow up.

DRIBBLES PLASTICS INCIDENT SCENARIO: DEVELOP INVESTIGATION REPORT

Writing the OHC investigation report is the next step in the investigation process. The class will continue to use the Dribbles Plastics incident scenario.

Groups will not be asked to complete the entire investigation report. This would take more time than we have available. Each group will develop short-term and long-term solutions. These solutions become the controls to prevent a re-occurrence.

Have each group record their discussions and record short-term and longterm controls in their workbook. Using the wording from the OHS legislation will help determine the most appropriate control.

After you present the instructions, give each table time to answer the two questions in the workbook. Have a spokesperson from each table be prepared to share their answers with the class.

INSTRUCTIONS

Review the project and what you expect. The material in the workbook will help students complete this project.

Your OHC will use all the evidence gathered, results of interviews, factors involved and causes to complete an investigation report.
Your group does not have to complete an entire investigation report. We don’t have enough time here to do that. You only need to come up with short-term and long-term solutions for the Dribbles Plastics incident scenario. In a proper report, these solutions become the recommendations in the final report.

Answer the questions in your workbook. Have someone at your table be prepared to discuss your answers with the class.

Do not advance to the next slide until all the groups have discussed the project questions. Give each group (spokesperson) an opportunity to share their discussion with the class. We have provided you with some possible answers in the answer key below.

The answers will appear on each slide with a click of the mouse. Don’t reveal the answers until the class has given you their thoughts. Use these answers as a discussion item.

**QUESTIONS AND ANSWERS**

1. What short-term recommendations will control the direct and indirect causes?

   • Repair the dribbler including all safety devices
   • Replace machine (i.e., dribbler)
   • Establish and enforce safe work procedures (i.e., use of machine, lockout, etc.)
   • Train workers
   • Provide additional supervision while other measures are finalized
• Comply with standards (i.e., regulations, industry practices, etc.)

QUESTIONS AND ANSWERS

What long-term recommendations must the employer take to prevent the occurrence of a similar incident?

Improve health and safety management systems so that:

• Hazards are identified and controlled

• Workers receive adequate orientation, training and instruction

• Supervision is competent

• Equipment is inspected and maintained properly

• Supervisors are competent and ensure workers comply with standards;

• The workplace complies with OHS legislation

What are the employer’s responsibilities when they receive the written OHC report? See regulations 17, 18, 19, 28, 134, 137 and 139.

[OPTIONAL] This is covered in the next objective. Review regulation 28 and explain the responsibility of the employer when an OHC writes to the employer about unsafe conditions and contraventions. The employer must respond, in writing, describing the actions they will take or if they do not take any action (and the reasons for not taking action). Review regulation 23 (employer’s duty to inspect tools, etc., in the workplace).
3:20 Objective 5

Objective: How to take action following a workplace investigation

Core messages
Investigations should be a key part of an employer’s health and safety system. Effective investigations are those investigations that determine the root causes and present controls so there is not a re-occurrence of a similar incident. This objective covers happens when the OHC gives its investigation report to the employer.

The OHC finalizes the investigation process by providing input to the employer and conducts a follow up to ensure the incident never takes place again. Understanding the investigation process, specifically regulation 28, will help OHCs determine what happens next. OHCs must know what regulation 28 addresses and explains everyone’s responsibilities, especially the employer.

This objective covers the responsibilities laid out in regulation 28, specifically the employer’s responsibility to take any action(s) recommended in the investigation report.

On written notice by the OHC or representative of an unsafe condition or contravention of OHS legislation, the employer must:

Take immediate steps to protect the health and safety of any worker who may be at risk;

Take suitable actions as soon as possible; and

Inform the OHC or representative in writing of any actions or reasons for not taking any actions.

Minimum content
Lecture and associated teaching points.
OBJECTIVE 5: HOW TO TAKE ACTION FOLLOWING A WORKPLACE INVESTIGATION

This objective explains regulation 28. Regulation 28 outlines the employer’s responsibilities when an OHC writes the employer a report with recommendations. Determine how much detail you go into when discussing regulation 28 with your class.

The employer becomes the main focus in Objective 5. The employer corrects problems identified in the investigation report. This includes making final decisions about:

- Health and safety system improvements;
- What hazard controls to use;
- Resource allocation; and
- Assignment of responsibilities and accountabilities.

The employer has the final say on what action(s) to take from the recommendations in the investigation report. The employer must ensure all workers’ health, safety and welfare. This objective explains how the OHC becomes involved at the end of an investigation.

TAKE ACTION

The investigation report is complete and now in the employer’s hand. What’s next? What does the OHC do?

How about the employer? What’s their next step? What does the OHS legislation say?

The employer is responsible for taking corrective action. The employer holds the greatest responsibility because they have the greatest degree of control over workers’ health and safety at the workplace. SEA 3-8 states, “The employer shall ensure, insofar as reasonably practicable the health, safety and welfare at work of all the employer’s workers.”
That’s a very broad statement that gives the employer health and safety responsibilities.

It is an employer’s duty to:

- Take immediate action to protect workers. Immediate actions are the short-term recommendations your OHC discussed in the last objective. Short-term actions are put into place to protect the worker right now. Short-term actions can’t wait. Waiting may put someone else at risk of injury or illness.

- Take long-term actions to correct the root causes. Root causes are usually those health and safety management system deficiencies, like the lack of proper training programs, competent and sufficient supervision, maintenance and repair programs, etc.

- Comply with OHS legislation. The employer must be duly diligent, meaning doing what’s reasonable in the circumstances to protect workers’ health and safety.

- Provide OHC with a written report. The employer must report back to the OHC what actions will be taken or the reasons for not taking action.

**TAKE ACTION**

The employer reviews the OHC’s investigation report and considers all recommendations.
In the end, the employer decides what action(s) to take. Will the employer follow the recommendations of the OHC or will they come up with their own short-term and long-term controls? It’s up to the employer.

The OHC may help the employer by providing input and checking the effectiveness of the employer’s actions. These cooperative approaches to health and safety help make the workplace a better environment to work.

It’s important for the OHC to follow up on the employer’s actions and ensure the actions are effective in protecting the workers’ health and safety. Follow up could be direct involvement by the OHC to help the employer correct the unsafe acts, conditions or contraventions. Or follow up could mean talking with the workers about corrective actions at the next inspection talk, inspecting the piece of equipment in question, reviewing an SDS to ensure the proper PPE has been put in place, reviewing all safety training provided to workers, etc.

Sometimes the employer’s corrective actions do not work as well as expected. That is why it’s important for the OHC to monitor what was done. The OHC can ask questions during inspections:

- Has the corrective action controlled the hazard?
- Have any new hazards been created?
- Have workers been informed adequately?
- Are any other measures required?
• Have orientation, training and workplace health and safety systems been modified to deal with the hazards in question?

• Has documentation of the process taken place?

**REGULATION 28(2)**

Regulation 28 explains the responsibilities of the OHC and the employer. It states that on written notice by the OHC or the representative, of an unsafe condition or a contravention of the law, the employer must:

• Take immediate steps to protect the health and safety of any worker who may be at risk until the unsafe condition is corrected;

• Take suitable actions to correct the unsafe condition or remedy the contravention as soon as possible; and

• Inform the OHC or representative in writing of:
  
• The actions that the employer has taken or will take; or

• The employer’s reasons for not taking action (e.g., if the employer does not agree with the OHC’s recommendations).

OHS Division expects the employer to ensure the workplace is healthy and safe. Not all concerns may be covered by regulation 28.
Example: Where a concern does not involve a violation of the legislation or an unsafe act or substandard condition, the employer might only need to fix the problem and informally discuss what was done with the OHC or representative. An example may be one light burned out in an entire room, but one light may not constitute a safety hazard. Having a system to change even one light is proactive rather than waiting for half the lights to go out which would create a dark workplace. Now we have a safety hazard. In this case the employer could be informing the OHC of their proactive approach when dealing with potential hazardous situations.

The OHC then communicates information to workers (e.g., posting minutes, holding meetings, etc.) so they know the corrective actions the employer is taking, or is planning to take, to prevent a re-occurrence or any future incidents. The OHC, at the next inspection, can check the effectiveness of the corrective actions taken by the employer.

[Optional] As the instructor, it’s up to you if you wish to go over the hazard control options again that are available to the employer. Correcting the causes of an incident usually involve controlling hazards. The closer a control is to the source of the hazard, the better. First, decide if engineering can eliminate or control the hazards at their source. If this does not work, try to put controls between the source and the worker. If this is not possible, control hazards at the worker's level.

One type of hazard control may not be completely effective. A combination of several types often works well. Try to find the best control for the root cause of each problem identified in the investigation. Don’t just address symptoms.
### Hazard control process and choices

**Control at the source**

**Elimination** — Try getting rid of the hazard.

**Substitution** — If elimination is not practical, try replacing hazardous substances with something less dangerous.

**Redesign** — Engineering can sometimes re-design the layout of the workplace, workstations, work processes and jobs to prevent or control various hazards.

**Isolation** — Isolating, containing or enclosing the hazard is often used to control chemical hazards and biohazards.

**Automation** — Dangerous processes can sometimes be automated.

### Control along the path

Hazards that cannot be isolated, replaced, enclosed or automated sometimes can be:

- Relocated;
- Blocked;
- Absorbed; or
- Diluted before they reach workers.

The further a control keeps hazards away from workers, the better.

### Control at the worker’s level

**Administrative controls** — These include introducing new policies, improving work procedures and requiring workers to use specific PPE and hygiene practices.

**Work procedures, training and supervision** — Supervisors can be trained to apply modern safety management and supervisory practices. Workers can be trained to use standardized safe work practices.

**Emergency planning** — Written plans should be in place to handle fires, chemical spills and other emergencies. Workers should be trained to follow these procedures and use appropriate equipment. Provide refresher training regularly.

**Housekeeping, repair and maintenance programs** — Housekeeping includes cleaning, waste disposal and spill cleanup. Tools, equipment and machinery are less likely to cause injury if they are kept clean and maintained.

**Hygiene practices and facilities** — These can reduce the risk of toxic materials absorbed by workers or carried home to families.

**PPE and clothing** — These are used when other controls aren’t feasible, additional protection is needed or the task or process is temporary. The employer must require workers to use PPE wherever the regulations or organizational work procedures prescribe its use. Workers must be trained to use, store and maintain their PPE properly. The employer, supervisor and workers must be informed about the limitations of their PPE.
3:35 Wrap up

SUMMARY

We’ve covered the 5 objectives for the Level 2 OHC Investigations course.

Discuss how you’ve met each of the 5 objectives. If time allows, elaborate on each objective to recap.

1. Learn regulatory requirements for investigating workplace incidents and dangerous occurrences

2. How to collect evidence for an investigation

3. How to analyze evidence for an investigation

4. How to develop a workplace investigation report

5. How to take action following a workplace investigation

IMPORTANT WEBSITES

OHS Division provides resources at www.saskatchewan.ca/work.

You can access OHS videos, publications, posters and other resources from www.worksafesask.com.

The Canadian Centre for Occupational Health and Safety (CCOHS) provides Canadians with relevant information and advice that supports responsible decision making and promotes safe and healthy working environments. CCOHS makes a vast scope of occupational health and safety information readily available, in clear language that is appropriate for all users, from the general public to the health and safety professional.
QUESTIONS?

Are there any questions?

Point out *Incident Investigations Guide* is a document that can be used as reference when participants return back to work. The guide support today’s class.

Ask the learners to complete and hand in the evaluation.

Have participants complete the self-check. When participants have completed the self-check, you can present the correct answers and clarify any questions.

OK, if there are no further questions, please complete the evaluation sheet at the back of your workbook. Turn in your evaluation before you leave or leave it on your table.

Remember to review the Incident Investigations Guide. This is a great resource document to help support what we learned in this class.

Please do not forget to pick up your certificate.

Collect course evaluations and self-checks. Stay for a few minutes in case students want to discuss specific concerns with you.

Thank-you for your participation today. This course was designed to give you a better understanding of the OHS legislation and everyone’s responsibilities in the workplace regarding investigations.

It is important for you to review class evaluations. Student input on the evaluation form can tell you how well you delivered the course. Use this as your learning tool to become a better instructor.
Self-check for Level 2 - Incident Investigations

Name: ______________________________

Instructor’s name: _______________________

1. What incidents and dangerous occurrences must be reported to OHS Division? Circle the correct answers.

(a) Any incident that resulted, or could have resulted, in the death of a worker, or that will require that hospitalization of a worker for more than 72 hours
(b) Any incident that requires a worker to receive first aid
(c) Any incident that could have caused serious injury or damage, such as the bursting of a grindstone or collapse of a scaffold
(d) Any incident that resulted, or could have resulted, in the death of a worker, or that will require the hospitalization of a worker for more than 24 hours

2. What incidents and dangerous occurrences must be investigated? Circle the correct answers.

(a) Incidents that require a worker to be admitted to a hospital as an in-patient for 24 hours or more
(b) Incidents that cause serious economic loss
(c) Incidents that require a worker to be admitted to a hospital as an in-patient for 72 hours or more
(d) Incidents that caused, or may have caused, the death of a worker

1. What is the role of investigations conducted by OHCs and representatives? Circle the correct answers.

(a) Improve the effectiveness of the employer’s health and safety management system
(b) Not assess blame
(c) Find and suggest corrections for the root cause of the incident
(d) Ensure compliance

1. What information must be included in regulations 29 and 31 reports? Circle the correct answers.

(a) The names of anyone who provided tools, equipment or chemicals involved in the incident
(b) A physician’s report describing any occupational disease or physical injury affecting workers involved in the incident
(c) Any graphics, photographs or other evidence that may assist to determine the cause or causes of the incident
(d) Signed transcripts of witness interviews
(e) An explanation of the cause or causes of the incident
(f) Any long-term action that the employer will take to prevent the occurrence of a similar incident or the reasons for not taking action
(g) The immediate corrective action taken
(h) A description of the incident

1. What three types of evidence can provide useful information about the possible causes of an incident? Circle the correct answers.

(a) Documentary evidence
(b) Media news reports
(c) Discussions among witnesses before they are interviewed
(d) Witness interviews
(e) Physical evidence

1. Arrange the steps in the witness interview process (1 to 7).

_____ 1 Research the issues and plan each interview carefully.
_____ 2 Identify who you want to interview and the information each witness is likely to be able to provide.
_____ 3 Schedule interviews in a neutral place where you can interview without interruption.
_____ 4 Interview those who were involved in the incident, saw it or were the first on the scene.
_____ 5 Interview those who know something about what was going on before the incident.
_____ 6 Interview technical specialists who are familiar with the technology and work practices involved.
_____ 7 Conduct follow-up interviews and re-examine physical and documentary evidence as needed.
2. Identify direct (D), indirect (I) and root (R) causes of an incident below.

| R | Fundamental problems that set events in motion that ultimately led to the incident |
| D | What directly caused the incident |
| I | What set the stage for the events leading to the incident |

8. What is the purpose of an OHC investigation report? Circle the correct answers.

| (a) Explain what happened and why |
| (b) Propose what should be done in the long term to remove fundamental weaknesses in the health and safety systems (if any) that led to the incident |
| (c) Identify who is responsible for the incident |
| (d) Propose what must be done immediately to prevent the incident from happening again |
| (e) Direct the employer to take specific corrective actions |

Total /28
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