

Trainer's Resource Section - Index

- Pages 1-21 **WorkSafeBC Guide to Completing an Employer Incident Investigation Report and 3 copies of the Employer Incident Investigation Report Form**

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- the Guide to Completing an Employer Incident Investigation Report (EIRR); *and*
- the Employer Incident Investigation Report (Form 52E40)

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Guide to Completing an Employer Incident Investigation Report (EIIR)

Save time and money by using the EIIR template to easily create all your required incident investigation reports.

WorkSafeBC has developed an employer incident investigation report (EIIR) [template](#) you can use to create all four reports that may be required following an incident in your workplace. This template will help you collect all the necessary information and reduce the work associated with completing multiple, separate reports.

What is this guide for?

This guide will walk you through the process of completing an EIIR, in conjunction with the requirements of [Part 3, Division 10](#), of the *Workers Compensation Act* (the Act) and prevention policies D10-175-1 and D10-176-1.

How many reports do I need to complete?

Depending on the incident, you may be required to complete up to four separate reports. Each report represents the status of the investigation at a specific point in the investigation process.

Report type	When	Template sections
Preliminary investigation	Complete within 48 hours	1 to 14
Interim corrective action	As soon as possible	1, 9, and 12
Full investigation	Complete within 30 days	1 to 19
Full corrective action	As soon as possible	1, 9, and 17

How do I submit a report to WorkSafeBC?

Generally, you are only required to submit full investigation reports to WorkSafeBC. You can submit full investigation reports:

- Online at the [EIIR upload portal](#)
- By fax at 604.276.3247 in the Lower Mainland or toll-free 1.866.240.1434
- By mail to WorkSafeBC, PO Box 5350, Stn Terminal Vancouver, BC V6B 5L5

When is an investigation required?

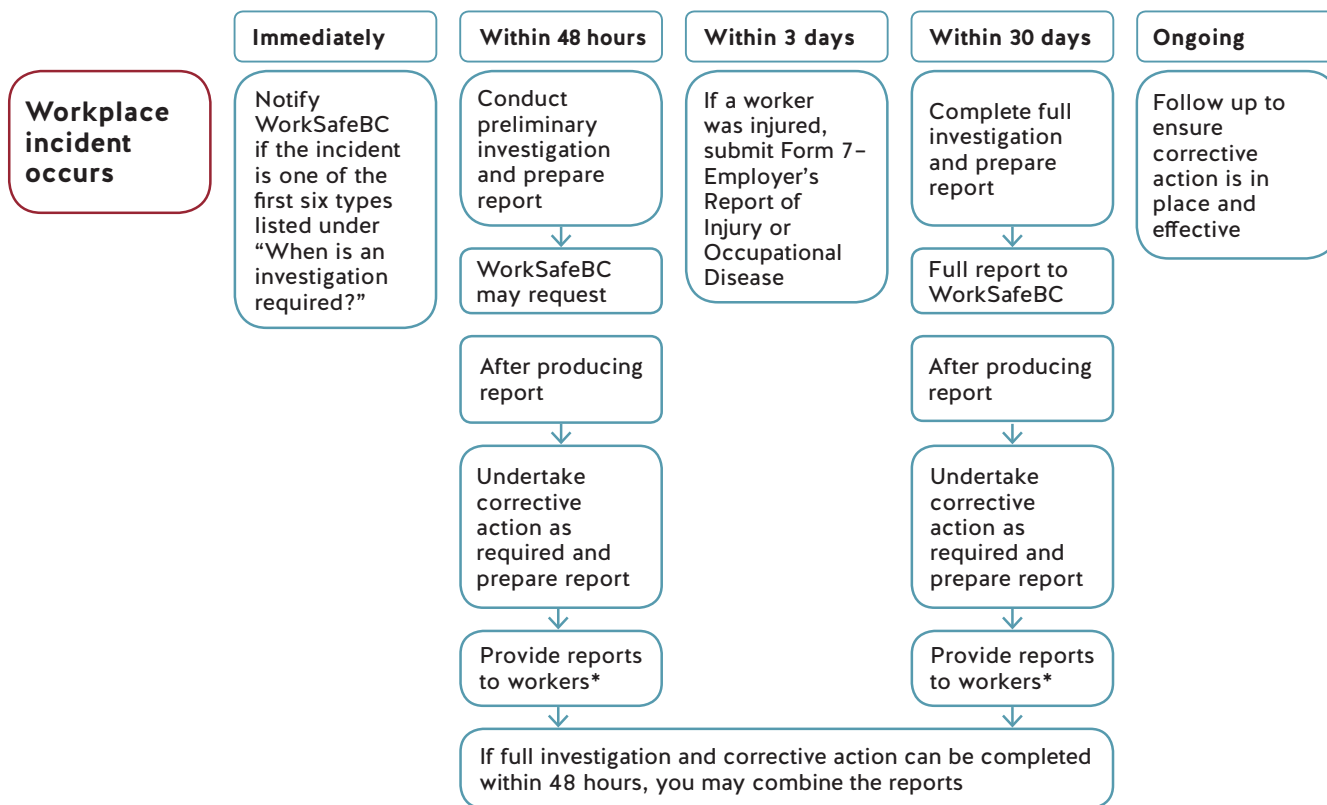
Employers are required to immediately investigate any incident that involves the following:

- (1) Serious injury to or death of a worker
- (2) A major structural failure or collapse
- (3) A major release of a hazardous substance
- (4) Fire or explosion with potential for serious injury
- (5) A blasting accident causing personal injury
- (6) Dangerous incident involving explosives, whether or not there is personal injury
- (7) A diving incident, as defined by the Occupational Health and Safety Regulation
- (8) Minor injury or no injury but had potential for causing serious injury
- (9) Injury requiring medical treatment beyond first aid

Note: For the first six types of incidents, you must also notify WorkSafeBC immediately. Call toll-free 1.888.621.7233. After hours call 1.866.922.4357.

If the incident is not one of the types listed above (for example, it was a minor incident and there was no risk of serious injury), you are not required to investigate it.

What to do following a workplace incident



* Provide to the joint health and safety committee or worker health and safety representative, as applicable. If there is no joint committee or worker representative, post the report in the workplace.

Step 1: Preliminary investigation report

When an incident occurs, you must conduct a preliminary investigation to identify any unsafe conditions, acts, or procedures — as much as possible — to identify and manage hazards in the workplace. This helps ensure that work can be done safely during the interim period between the incident and the conclusion of the full investigation.

When the preliminary investigation is complete, open the EIIR template and enter the incident details in sections 1 to 14. Save the file as a Microsoft Word or PDF file, indicating the date of the incident, the injured worker's name, and the type of report (preliminary investigation). Complete this report within 48 hours.

Preliminary investigation reports must be initiated immediately and must contain all information specified by policy. Don't submit your preliminary

investigation report to WorkSafeBC unless you have been directed to do so by an officer.

Section 1: Employer information

Provide the employer's legal name, operating name or trade name, address, contact number, email address, WorkSafeBC account number, and operating location number.

Section 2: Injured persons

Provide the names and job titles of individuals injured or killed in the incident, even if they don't work for the employer.

Section 3: Place, date, and time of incident

For incidents in remote locations or away from the employer's mailing address, include whatever identifying information is available. This may include GPS coordinates, mile markers, or street intersections.

Section 4: Type of occurrence

Use this section to indicate the type of incident you are investigating. You are legally obligated to investigate and report certain types of incidents. If it's a first aid-only injury and there was no risk of serious injury, you are not required to investigate it. You are not required to investigate a vehicle accident occurring on a public street or highway.

Section 10 of the template lists examples of serious injuries. "A major release" is defined in [Policy D-10-172-1](#).

Section 5: Report type

Indicate whether this is a preliminary investigation, interim corrective action, full investigation, or full corrective action report. If you are using the EIIR template for multiple reporting obligations, select all the report types that apply. For example, if you have completed the preliminary investigation and identified and taken corrective action, select the "Preliminary investigation report" box and the "Interim corrective action report" box.

Indicate if this is a revision to a previously documented report. If this is a preliminary investigation report requested by an officer, note the officer's name.

Section 6: Witnesses

Provide the names and job titles of any witnesses to the incident, including workers or members of the public.

Section 7: Other persons whose presence might be necessary for a proper investigation

Provide the names and job titles of anyone who is needed to conduct the investigation. This may include workers who were on shift before the incident, someone who maintained equipment involved in the incident, or third-party consultants.

Section 8: Sequence of events that preceded the incident

Identify significant events that led up to the incident. You can also include relevant events that followed the incident, such as first aid. Include

dates and times, if possible. Arrange the events in chronological order, from first to last. Don't include things that should have happened but did not (for example, "worker did not use guard"). For more information on developing a sequence of events, see [these training materials](#), which are listed at the bottom of the web page under "Investigation of Accidents and Incidents."

Section 9: Unsafe conditions, acts, or procedures that significantly contributed to the incident

Analyze the sequence of events. Ask why each event happened. Describe any unsafe conditions, acts, or procedures (for example, poor housekeeping or failure to follow safety procedures). Avoid stopping at personal factors, such as "worker was careless." Consider possible problems with factors such as training, equipment maintenance, standard work procedures, and environmental conditions.

Section 10: Nature of serious injury

You may use this section to indicate the nature of the injury, if applicable. According to [Guideline G-D10-172-1](#), a serious injury "is any injury that can reasonably be expected at the time of the incident to endanger life or cause permanent injury." Serious injuries include traumatic injuries such as fractures of the arms or legs, major cuts, burns and crush injuries.

Section 11: Brief description of the incident

Summarize what happened based on the information in sections 8, 9, and 10.

Section 12: Corrective actions identified and taken to prevent recurrence of similar incidents

Describe the corrective actions you have identified to prevent similar incidents. Include the action, the name and job title of the person responsible for it, and the completion date or anticipated completion date.

Section 13: Explanation of blank areas on this preliminary report, if any

You are expected to take reasonable steps to investigate the incident and identify unsafe

conditions, acts, or procedures as much as possible. Circumstances outside an employer's control may restrict the investigation — for example, not being able to access the incident scene because of an ongoing police investigation. If you can't complete the preliminary investigation you should still provide any information you have available.

Section 14: Persons who carried out or participated in the preliminary investigation

Include the name and job title of anyone who took part in the employer's incident investigation.

Step 2: Interim corrective action report

Interim corrective action reports must address the findings of the preliminary investigation. If all interim corrective action was completed when the preliminary report was written, you have already completed the corrective action report and can check both boxes in section 5 (preliminary investigation report and interim corrective action report).

If some actions still need to be done, open the preliminary investigation report and rename the file to indicate that this is the interim corrective action report. Update the information in sections 9 and 12 with any new actions or dates. If some actions still have not been done at the end of the full investigation, ensure they are included in your full corrective action report.

The information you provide in sections 1 to 14 is sufficient to satisfy your legal obligation to prepare both a preliminary incident investigation report and interim corrective action report. You must provide these reports to your joint occupational health and safety committee (or worker health and safety representative, if applicable). If there is no joint committee or worker representative, the reports must be posted in the workplace. Don't send these reports to WorkSafeBC unless an officer asks for them.

Step 3: Full investigation report

In the full investigation, you must determine the causes of the incident. These causes could include underlying problems with supervision, training, preventative maintenance, or other management systems.

When you have completed the full investigation, open the interim corrective action report and rename it (full investigation report). Check the box in section 5. Add information to sections 15 to 19. Submit the report to WorkSafeBC within 30 days of the incident. Don't submit attachments to the report, such as photos, videos, and drawings. Instead, keep them at the workplace.

Section 15: Determination of causes of incident

Analyze the facts and circumstances of the incident to identify the underlying factors that led to it. What underlying factors made the unsafe conditions, acts, or procedures possible? Identify health and safety deficiencies.

Section 16: Full description of the incident

Use the brief description from the preliminary report as a starting point. Expand on it, as necessary.

Section 17: Additional corrective actions necessary to prevent recurrence of similar incidents

Provide information about the corrective actions you have identified to prevent similar incidents. Include the action, the name and job title of the person responsible for it, and the completion date or anticipated completion date.

Note: If all the corrective actions have been completed by the time you write the full report, this report can also serve as the full corrective action report. In this case, remember to check both boxes in section 5.

Section 18: Persons who carried out or participated in the full investigation

Include the names and job titles of those who took part in the employer's incident investigation.

Section 19: Other relevant workplace parties

Depending on the nature of your workplace, there may be other people, such as prime contractors or property owners, who have duties or responsibilities for workplace safety. Identify any other person actively involved in the incident, and include the name and contact information for these other workplace parties, if applicable.

The information you provide in sections 1 to 19 is sufficient to satisfy your legal obligation to prepare a full incident investigation report. You must provide this report to your joint occupational health and safety committee (or worker health and safety representative, if applicable). If there is no joint committee or worker representative, the reports must be posted in the workplace.

Step 4: Full corrective action report

If there are still outstanding, incomplete corrective actions when you write the full investigation report, then you may be unable to complete the full corrective action report at that time. When all the corrective actions have been completed, open the full investigation report and rename it (full corrective action report). Add the completion dates in section 17 (and section 9, if any).

You must provide this report to your joint occupational health and safety committee (or worker safety representative, if applicable). If there is no joint committee or worker representative, you must post the report in your workplace. Don't send this report to WorkSafeBC unless an officer asks for it.

What formats is the EIIR template available in?

The template is available in two formats: PDF and Word. The PDF template is dynamic — you can type in the fields. However, it can't be customized with additional fields.

The Word template also has dynamic fields you can type in. You may wish to customize the template by adding a company logo, more fields for tracking and categorizing incidents, or more rows in different sections (for complex or large investigations).

Do I have to use the EIIR template?

Employers are not required to use the template. You can choose to continue using your own methods of recording incident investigations on your own forms.

Regardless of the reporting format used, your reports must contain the information required by [Policy D10-175-1](#) and [Policy D10-176-1](#) in order to comply with sections 175(2)(a) and 176(2)(a) of the Act.

If you are using your own form, please attach a cover sheet that includes any required information that isn't covered in your form. The cover sheet should include:

- Your WorkSafeBC account number and operating location
- The type of report you are submitting (full investigation or other)
- The type of incident (for example, a minor injury, a near miss, or a serious injury)

What are the timelines?

You must initiate the preliminary investigation immediately and complete a preliminary investigation report within 48 hours of the incident. You must also initiate the full investigation and submit the full investigation report to WorkSafeBC within 30 days of the incident, unless WorkSafeBC grants an extension.

Depending on the complexity of the incident, you might be able to complete your full investigation report within 48 hours. (See "Can I combine reports?")

The 48-hour period can be extended if it expires on a Sunday or other holiday, or it expires on a day you are not normally open.

You must provide the corrective action report to your joint occupational health and safety committee (or worker safety representative, if applicable) as soon as possible after the corrective action occurs.

How should I organize my investigation files?

We recommend that when an incident occurs you open the template and save it as a Word or PDF file with a name that indicates the date of the incident, the injured worker's name, and the type of report. For example, you could save a file as: "2015-12-27 John Doe – Preliminary"

If there was no injury, a near-miss incident could be saved as:
"2015-12-27 Near Miss – Preliminary"

When you move to step 2 (the corrective action report), open the preliminary report, rename it, and update the information. For example, rename the file "2015-12-27 John Doe – Interim"

When you have completed the full investigation, open the interim file, rename it, and complete the information in sections 15 to 19. For example, rename the file:
"2015-12-28 John Doe – Full"

When you have completed all the corrective actions, it is time to complete the full corrective action report. Open the full report, rename it, and finalize the information in section 17. For example, rename the file:
"2015-12-28 John Doe – Corrective"

Naming and organizing your files in this way, helps keep all reports together and minimizes re-entering data in the reports.

Can I hand write the full investigation report?

Both the Word and PDF versions of the template are formatted to be printed and may allow enough space for you to write in the needed information. You could then scan the print document as either a PDF or JPG file and submit it online.

When can I combine reports?

Depending on the complexity of the incident investigation, it may be possible to complete the full investigation report and resulting corrective action within 48 hours. In this situation, you may combine one or more reports as long as you meet all the requirements and complete the reports within the required time. [Policy D10-176-1](#) describes what to do when the incident investigation and resulting corrective action are completed within 48 hours.

Who needs to conduct the investigation?

Your incident investigation must be carried out by people who are knowledgeable about the type of work involved. The employer, or a representative of the employer, and a worker representative must participate if they are reasonably available. That means each investigation will be carried out by at least two people, maybe more for complex investigations. For guidance on how to determine whether a worker representative is "reasonably available" to participate in an employer incident investigation consult [Guideline G-D10-174-1 Participation by worker representatives in incident investigations](#).

Participation in the investigation will include:

- Viewing the scene of the incident with those carrying out the investigation
- Providing advice to the people carrying out the investigation
- Any other activities prescribed by WorkSafeBC

People participating in the investigation must have adequate training to be able to fulfill their responsibilities. They should understand the investigation process and be able to analyze the sequence of events to find all factors contributing to the incident.

Instructions for template

Employer Incident Investigation Report (EIIR)

This form is available in two formats: **PDF** and a Word template. In the PDF, you can fill in the fields, save the completed form, and either print or email.

The Word template is for employers who would like to customize the existing fields by adding the following features:

- a company logo
- fields for tracking and categorizing incidents
- rows in different sections (for complex or large investigations)

In order to modify the template, the “Developer tab” must first be enabled and showing in the ribbon bar.

Please also note the following:

- This template will need to be saved as a document once the changes have been made.
- The form fields will only function if protected and saved in a Word 97–2003 format.

The template contains the minimum required content to satisfy **the legal requirements for incident investigation and corrective action reports, as set out in the *Workers Compensation Act* and **WorkSafeBC policy****. If you choose to customize, you may add fields but you should not delete any of the current fields.

Employer Incident Investigation Report (EIIR)

Please refer to the companion [quick guide](#) for assistance completing the investigation and this form.

1. Employer's information

Employer's name (legal name and trade name)	Operating location number	WorkSafeBC account number
Employer's head office address		
City	Province	Postal code
Employer's representative's name		Phone number (include area code)
Email address		

2. Injured persons

Last name	First name	Job title
a)		
b)		
c)		
d)		

3. Place, date, and time of incident

Location where incident occurred (street address or GPS coordinates)		
City (nearest)	Province	Postal code
Date of incident (yyyy-mm-dd)	Time of incident	<input type="checkbox"/> a.m. <input type="checkbox"/> p.m.

4. Type of occurrence (select all that apply)

<input type="checkbox"/> Death of a worker	<input type="checkbox"/> Dangerous incident involving explosives other than blasting incident
<input type="checkbox"/> Serious injury to a worker	<input type="checkbox"/> Diving incident, as defined by regulation
<input type="checkbox"/> Major structural failure or collapse	<input type="checkbox"/> Incident of fire or explosion with potential for serious injury
<input type="checkbox"/> Major release of hazardous substance	<input type="checkbox"/> Minor injury or no injury but had potential for causing serious injury
<input type="checkbox"/> Blasting accident causing personal injury	<input type="checkbox"/> Injury requiring medical treatment beyond first aid

An incident investigation report is NOT required under the *Workers Compensation Act* if none of the above applies or if this incident is a vehicle accident occurring on a public street or highway.

5. Report type (select all that apply) If this is a revised version of a previous report, please check here .

<input type="checkbox"/> Preliminary Investigation Report If requested only, provide a copy to WorkSafeBC.	<input type="checkbox"/> Interim Corrective Action Report	<input type="checkbox"/> Full Investigation Report <div style="border: 1px solid black; border-radius: 10px; padding: 5px; text-align: center;"> Must be provided to WorkSafeBC within 30 days* Fax 1.866.240.1434 </div>	<input type="checkbox"/> Full Corrective Action Report
Report date (yyyy-mm-dd)	Report date (yyyy-mm-dd)	Report date (yyyy-mm-dd)	Report date (yyyy-mm-dd)

Employer Incident Investigation Report (EIIR)

Employer's name (legal name and trade name)	Operating location number	WorkSafeBC account number
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Officer's name		Date sent (yyyy-mm-dd)	
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6. Witnesses

Last name	First name	Job title
a)		
b)		
c)		

7. Other persons whose presence might be necessary for proper investigation

Last name	First name	Job title
a)		
b)		

8. Sequence of events that preceded the incident

Required in Preliminary Report. Update in Full Report if necessary. Describe events earlier that day or even in previous years that led up to the incident. Examples may include events such as training given or changes in equipment, procedures, or company management.

9. Unsafe conditions, acts, or procedures that significantly contributed to the incident

Required in all reports. Describe anything, or the absence of anything, that contributed to the hazard such as poor housekeeping or poor visibility, using equipment without guards, or the lack of safe work procedures.

10. Nature of the serious injury (optional – complete only if there has been an injury)

<input type="checkbox"/> Life threatening or resulting in loss of consciousness <input type="checkbox"/> Major broken bones in head, spine, pelvis, arms, or legs <input type="checkbox"/> Major crush injuries <input type="checkbox"/> Major cut with severe bleeding <input type="checkbox"/> Amputation of arm, leg, or large part of hand or foot <input type="checkbox"/> Major penetrating injuries to eye, head, or body <input type="checkbox"/> Severe (third-degree) burns	<input type="checkbox"/> Punctured lung or other serious respiratory condition <input type="checkbox"/> Injury to internal organ or internal bleeding <input type="checkbox"/> Injury likely to result in loss of sight, hearing, or touch <input type="checkbox"/> Injury requiring CPR or other critical intervention <input type="checkbox"/> Diving illness such as decompression sickness or near drowning <input type="checkbox"/> Serious chemical or heat/cold stress exposure <input type="checkbox"/> Other (specify)
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11. Brief description of the incident

Required in Preliminary Report. Briefly, summarize the sequence of events, the unsafe factors, and the resulting injury, if any.

12. Corrective actions identified and taken to prevent recurrence of similar incidents

Action <small>(Required in Preliminary Report and Interim Corrective Action Report. Update in Full Report, if necessary.)</small>	Action assigned to <small>(name and job title)</small>	Expected completion date <small>(yyyy-mm-dd)</small>	Completed date <small>(yyyy-mm-dd)</small>

Employer Incident Investigation Report (EIIR)

Employer's name (legal name and trade name)	Operating location number	WorkSafeBC account number
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Action <small>(Required in Preliminary Report and Interim Corrective Action Report. Update in Full Report, if necessary.)</small>	Action assigned to <small>(name and job title)</small>	Expected completion date <small>(yyyy-mm-dd)</small>	Completed date <small>(yyyy-mm-dd)</small>
a)			
b)			
c)			
d)			
e)			

13. Explanation of blank areas on this Preliminary Report, if any

If there are blank areas, describe the circumstances beyond your control that explain this lack of information.

14. Persons who carried out or participated in the preliminary investigation

Representative	Name	Job title	Signature (optional)	Date signed <small>(yyyy-mm-dd)</small>
Employer representative				
Worker representative				
Other				
Other				

End of report

Completing all the sections above satisfies the requirements for a Preliminary Investigation Report and an Interim Corrective Action Report.

Note: If this was a simple investigation and **all needed corrective actions have been completed within 48 hours**, the Preliminary and Full Investigation portions of the report can be completed at the same time. If so, you can check both the Preliminary Investigation Report and the Full Investigation Report boxes in section 5 on page 1.

As of January 1, 2016, copies of **all** reports must also be provided to the joint occupational health and safety committee or worker representative, as applicable.

15. Determination of causes of incident

Required in Full Report. Analyze the facts and circumstances of the incident to identify underlying factors that led to the incident. Underlying factors include factors that made the unsafe conditions, acts, or procedures in the Preliminary Report possible. Update items from section 9, if needed.

16. Full description of the incident

Required in Full Report. Use the brief description from the Preliminary Report and update it, if necessary.

Employer Incident Investigation Report (EIIR)

Employer's name (legal name and trade name)	Operating location number	WorkSafeBC account number
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17. Additional corrective actions necessary to prevent recurrence of similar incidents

Additional corrective action <small>(Required in Full Report and Full Corrective Action Report.)</small>	Action assigned to <small>(name and job title)</small>	Expected completion date <small>(yyyy-mm-dd)</small>	Completed date <small>(yyyy-mm-dd)</small>
a)			
b)			
c)			
d)			

18. Persons who carried out or participated in the full investigation

Representative	Name	Job title	Signature <small>(optional)</small>	Date signed <small>(yyyy-mm-dd)</small>
Employer representative				
Worker representative				
Other				

19. Other relevant workplace parties

Company name	Contact person	Contact number or email address
a)		

End of report

Completing all the sections above satisfies the requirements for a Full Investigation Report and a Full Corrective Action Report.

Employers are required to submit **full** investigation reports to WorkSafeBC **within 30 days* of the incident**. Reports may be submitted by fax to 604.276.3247 (Greater Vancouver), toll-free fax 1.866.240.1434, or by mail to PO Box 5350, Stn Terminal, Vancouver BC V6B 5L5. Do **NOT** submit a preliminary report unless you have been so directed by a WorkSafeBC officer.

* Employers can request an extension from a WorkSafeBC officer, **if the full investigation cannot be completed within 30 days**.

As of January 1, 2016, copies of **all** reports must also be provided to the joint occupational health and safety committee or worker representative, as applicable.

Instructions for template

Employer Incident Investigation Report (EIIR)

This form is available in two formats: **PDF** and a Word template. In the PDF, you can fill in the fields, save the completed form, and either print or email.

The Word template is for employers who would like to customize the existing fields by adding the following features:

- a company logo
- fields for tracking and categorizing incidents
- rows in different sections (for complex or large investigations)

In order to modify the template, the “Developer tab” must first be enabled and showing in the ribbon bar.

Please also note the following:

- This template will need to be saved as a document once the changes have been made.
- The form fields will only function if protected and saved in a Word 97–2003 format.

The template contains the minimum required content to satisfy **the legal requirements for incident investigation and corrective action reports, as set out in the *Workers Compensation Act* and **WorkSafeBC policy****. If you choose to customize, you may add fields but you should not delete any of the current fields.

Employer Incident Investigation Report (EIIR)

Please refer to the companion [quick guide](#) for assistance completing the investigation and this form.

1. Employer's information

Employer's name (legal name and trade name)	Operating location number	WorkSafeBC account number
Employer's head office address		
City	Province	Postal code
Employer's representative's name		Phone number (include area code)
Email address		

2. Injured persons

Last name	First name	Job title
a)		
b)		
c)		
d)		

3. Place, date, and time of incident

Location where incident occurred (street address or GPS coordinates)		
City (nearest)	Province	Postal code
Date of incident (yyyy-mm-dd)	Time of incident	<input type="checkbox"/> a.m. <input type="checkbox"/> p.m.

4. Type of occurrence (select all that apply)

- | | |
|--|---|
| <input type="checkbox"/> Death of a worker | <input type="checkbox"/> Dangerous incident involving explosives other than blasting incident |
| <input type="checkbox"/> Serious injury to a worker | <input type="checkbox"/> Diving incident, as defined by regulation |
| <input type="checkbox"/> Major structural failure or collapse | <input type="checkbox"/> Incident of fire or explosion with potential for serious injury |
| <input type="checkbox"/> Major release of hazardous substance | <input type="checkbox"/> Minor injury or no injury but had potential for causing serious injury |
| <input type="checkbox"/> Blasting accident causing personal injury | <input type="checkbox"/> Injury requiring medical treatment beyond first aid |

An incident investigation report is NOT required under the *Workers Compensation Act* if none of the above applies or if this incident is a vehicle accident occurring on a public street or highway.

5. Report type (select all that apply) If this is a revised version of a previous report, please check here .

<input type="checkbox"/> Preliminary Investigation Report If requested only, provide a copy to WorkSafeBC.	<input type="checkbox"/> Interim Corrective Action Report	<input type="checkbox"/> Full Investigation Report <div style="border: 1px solid orange; border-radius: 10px; padding: 5px; text-align: center;"> Must be provided to WorkSafeBC within 30 days* Fax 1.866.240.1434 </div>	<input type="checkbox"/> Full Corrective Action Report
Report date (yyyy-mm-dd)	Report date (yyyy-mm-dd)	Report date (yyyy-mm-dd)	Report date (yyyy-mm-dd)

Employer Incident Investigation Report (EIIR)

Employer's name (legal name and trade name)	Operating location number	WorkSafeBC account number
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Officer's name		Date sent (yyyy-mm-dd)	
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6. Witnesses

Last name	First name	Job title
a)		
b)		
c)		

7. Other persons whose presence might be necessary for proper investigation

Last name	First name	Job title
a)		
b)		

8. Sequence of events that preceded the incident

Required in Preliminary Report. Update in Full Report if necessary. Describe events earlier that day or even in previous years that led up to the incident. Examples may include events such as training given or changes in equipment, procedures, or company management.

9. Unsafe conditions, acts, or procedures that significantly contributed to the incident

Required in all reports. Describe anything, or the absence of anything, that contributed to the hazard such as poor housekeeping or poor visibility, using equipment without guards, or the lack of safe work procedures.

10. Nature of the serious injury (optional – complete only if there has been an injury)

<input type="checkbox"/> Life threatening or resulting in loss of consciousness <input type="checkbox"/> Major broken bones in head, spine, pelvis, arms, or legs <input type="checkbox"/> Major crush injuries <input type="checkbox"/> Major cut with severe bleeding <input type="checkbox"/> Amputation of arm, leg, or large part of hand or foot <input type="checkbox"/> Major penetrating injuries to eye, head, or body <input type="checkbox"/> Severe (third-degree) burns	<input type="checkbox"/> Punctured lung or other serious respiratory condition <input type="checkbox"/> Injury to internal organ or internal bleeding <input type="checkbox"/> Injury likely to result in loss of sight, hearing, or touch <input type="checkbox"/> Injury requiring CPR or other critical intervention <input type="checkbox"/> Diving illness such as decompression sickness or near drowning <input type="checkbox"/> Serious chemical or heat/cold stress exposure <input type="checkbox"/> Other (specify)
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11. Brief description of the incident

Required in Preliminary Report. Briefly, summarize the sequence of events, the unsafe factors, and the resulting injury, if any.

12. Corrective actions identified and taken to prevent recurrence of similar incidents

Action <small>(Required in Preliminary Report and Interim Corrective Action Report. Update in Full Report, if necessary.)</small>	Action assigned to <small>(name and job title)</small>	Expected completion date <small>(yyyy-mm-dd)</small>	Completed date <small>(yyyy-mm-dd)</small>

Employer Incident Investigation Report (EIIR)

Employer's name (legal name and trade name)	Operating location number	WorkSafeBC account number
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Action <small>(Required in Preliminary Report and Interim Corrective Action Report. Update in Full Report, if necessary.)</small>	Action assigned to <small>(name and job title)</small>	Expected completion date <small>(yyyy-mm-dd)</small>	Completed date <small>(yyyy-mm-dd)</small>
a)			
b)			
c)			
d)			
e)			

13. Explanation of blank areas on this Preliminary Report, if any

If there are blank areas, describe the circumstances beyond your control that explain this lack of information.

14. Persons who carried out or participated in the preliminary investigation

Representative	Name	Job title	Signature (optional)	Date signed <small>(yyyy-mm-dd)</small>
Employer representative				
Worker representative				
Other				
Other				

End of report

Completing all the sections above satisfies the requirements for a Preliminary Investigation Report and an Interim Corrective Action Report.

Note: If this was a simple investigation and **all needed corrective actions have been completed within 48 hours**, the Preliminary and Full Investigation portions of the report can be completed at the same time. If so, you can check both the Preliminary Investigation Report and the Full Investigation Report boxes in section 5 on page 1.

As of January 1, 2016, copies of **all** reports must also be provided to the joint occupational health and safety committee or worker representative, as applicable.

15. Determination of causes of incident

Required in Full Report. Analyze the facts and circumstances of the incident to identify underlying factors that led to the incident. Underlying factors include factors that made the unsafe conditions, acts, or procedures in the Preliminary Report possible. Update items from section 9, if needed.

16. Full description of the incident

Required in Full Report. Use the brief description from the Preliminary Report and update it, if necessary.

Employer Incident Investigation Report (EIIR)

Employer's name (legal name and trade name)	Operating location number	WorkSafeBC account number
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17. Additional corrective actions necessary to prevent recurrence of similar incidents

Additional corrective action <small>(Required in Full Report and Full Corrective Action Report.)</small>	Action assigned to <small>(name and job title)</small>	Expected completion date <small>(yyyy-mm-dd)</small>	Completed date <small>(yyyy-mm-dd)</small>
a)			
b)			
c)			
d)			

18. Persons who carried out or participated in the full investigation

Representative	Name	Job title	Signature <small>(optional)</small>	Date signed <small>(yyyy-mm-dd)</small>
Employer representative				
Worker representative				
Other				

19. Other relevant workplace parties

Company name	Contact person	Contact number or email address
a)		

End of report

Completing all the sections above satisfies the requirements for a Full Investigation Report and a Full Corrective Action Report.

Employers are required to submit **full** investigation reports to WorkSafeBC **within 30 days* of the incident**. Reports may be submitted by fax to 604.276.3247 (Greater Vancouver), toll-free fax 1.866.240.1434, or by mail to PO Box 5350, Stn Terminal, Vancouver BC V6B 5L5. Do **NOT** submit a preliminary report unless you have been so directed by a WorkSafeBC officer.

* Employers can request an extension from a WorkSafeBC officer, **if the full investigation cannot be completed within 30 days**.

As of January 1, 2016, copies of **all** reports must also be provided to the joint occupational health and safety committee or worker representative, as applicable.

Instructions for template

Employer Incident Investigation Report (EIIR)

This form is available in two formats: **PDF** and a Word template. In the PDF, you can fill in the fields, save the completed form, and either print or email.

The Word template is for employers who would like to customize the existing fields by adding the following features:

- a company logo
- fields for tracking and categorizing incidents
- rows in different sections (for complex or large investigations)

In order to modify the template, the “Developer tab” must first be enabled and showing in the ribbon bar.

Please also note the following:

- This template will need to be saved as a document once the changes have been made.
- The form fields will only function if protected and saved in a Word 97–2003 format.

The template contains the minimum required content to satisfy **the legal requirements for incident investigation and corrective action reports, as set out in the *Workers Compensation Act* and **WorkSafeBC policy****. If you choose to customize, you may add fields but you should not delete any of the current fields.

Employer Incident Investigation Report (EIIR)

Please refer to the companion [quick guide](#) for assistance completing the investigation and this form.

1. Employer's information

Employer's name (legal name and trade name)	Operating location number	WorkSafeBC account number
Employer's head office address		
City	Province	Postal code
Employer's representative's name		Phone number (include area code)
Email address		

2. Injured persons

Last name	First name	Job title
a)		
b)		
c)		
d)		

3. Place, date, and time of incident

Location where incident occurred (street address or GPS coordinates)		
City (nearest)	Province	Postal code
Date of incident (yyyy-mm-dd)	Time of incident	<input type="checkbox"/> a.m. <input type="checkbox"/> p.m.

4. Type of occurrence (select all that apply)

<input type="checkbox"/> Death of a worker	<input type="checkbox"/> Dangerous incident involving explosives other than blasting incident
<input type="checkbox"/> Serious injury to a worker	<input type="checkbox"/> Diving incident, as defined by regulation
<input type="checkbox"/> Major structural failure or collapse	<input type="checkbox"/> Incident of fire or explosion with potential for serious injury
<input type="checkbox"/> Major release of hazardous substance	<input type="checkbox"/> Minor injury or no injury but had potential for causing serious injury
<input type="checkbox"/> Blasting accident causing personal injury	<input type="checkbox"/> Injury requiring medical treatment beyond first aid

An incident investigation report is NOT required under the *Workers Compensation Act* if none of the above applies or if this incident is a vehicle accident occurring on a public street or highway.

5. Report type (select all that apply) If this is a revised version of a previous report, please check here .

<input type="checkbox"/> Preliminary Investigation Report If requested only, provide a copy to WorkSafeBC.	<input type="checkbox"/> Interim Corrective Action Report	<input type="checkbox"/> Full Investigation Report <div style="border: 1px solid black; border-radius: 10px; padding: 5px; text-align: center;"> Must be provided to WorkSafeBC within 30 days* Fax 1.866.240.1434 </div>	<input type="checkbox"/> Full Corrective Action Report
Report date (yyyy-mm-dd)	Report date (yyyy-mm-dd)	Report date (yyyy-mm-dd)	Report date (yyyy-mm-dd)

Employer Incident Investigation Report (EIIR)

Employer's name (legal name and trade name)	Operating location number	WorkSafeBC account number
---	---------------------------	---------------------------

Officer's name		Date sent (yyyy-mm-dd)	
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6. Witnesses

Last name	First name	Job title
a)		
b)		
c)		

7. Other persons whose presence might be necessary for proper investigation

Last name	First name	Job title
a)		
b)		

8. Sequence of events that preceded the incident

Required in Preliminary Report. Update in Full Report if necessary. Describe events earlier that day or even in previous years that led up to the incident. Examples may include events such as training given or changes in equipment, procedures, or company management.

9. Unsafe conditions, acts, or procedures that significantly contributed to the incident

Required in all reports. Describe anything, or the absence of anything, that contributed to the hazard such as poor housekeeping or poor visibility, using equipment without guards, or the lack of safe work procedures.

10. Nature of the serious injury (optional – complete only if there has been an injury)

<input type="checkbox"/> Life threatening or resulting in loss of consciousness <input type="checkbox"/> Major broken bones in head, spine, pelvis, arms, or legs <input type="checkbox"/> Major crush injuries <input type="checkbox"/> Major cut with severe bleeding <input type="checkbox"/> Amputation of arm, leg, or large part of hand or foot <input type="checkbox"/> Major penetrating injuries to eye, head, or body <input type="checkbox"/> Severe (third-degree) burns	<input type="checkbox"/> Punctured lung or other serious respiratory condition <input type="checkbox"/> Injury to internal organ or internal bleeding <input type="checkbox"/> Injury likely to result in loss of sight, hearing, or touch <input type="checkbox"/> Injury requiring CPR or other critical intervention <input type="checkbox"/> Diving illness such as decompression sickness or near drowning <input type="checkbox"/> Serious chemical or heat/cold stress exposure <input type="checkbox"/> Other (specify)
---	---

11. Brief description of the incident

Required in Preliminary Report. Briefly, summarize the sequence of events, the unsafe factors, and the resulting injury, if any.

12. Corrective actions identified and taken to prevent recurrence of similar incidents

Action	Action assigned to	Expected completion date	Completed date
(Required in Preliminary Report and Interim Corrective Action Report. Update in Full Report, if necessary.)	(name and job title)	(yyyy-mm-dd)	(yyyy-mm-dd)

Employer Incident Investigation Report (EIIR)

Employer's name (legal name and trade name)	Operating location number	WorkSafeBC account number
---	---------------------------	---------------------------

Action <small>(Required in Preliminary Report and Interim Corrective Action Report. Update in Full Report, if necessary.)</small>	Action assigned to <small>(name and job title)</small>	Expected completion date <small>(yyyy-mm-dd)</small>	Completed date <small>(yyyy-mm-dd)</small>
a)			
b)			
c)			
d)			
e)			

13. Explanation of blank areas on this Preliminary Report, if any

If there are blank areas, describe the circumstances beyond your control that explain this lack of information.

14. Persons who carried out or participated in the preliminary investigation

Representative	Name	Job title	Signature (optional)	Date signed <small>(yyyy-mm-dd)</small>
Employer representative				
Worker representative				
Other				
Other				

End of report

Completing all the sections above satisfies the requirements for a Preliminary Investigation Report and an Interim Corrective Action Report.

Note: If this was a simple investigation and **all needed corrective actions have been completed within 48 hours**, the Preliminary and Full Investigation portions of the report can be completed at the same time. If so, you can check both the Preliminary Investigation Report and the Full Investigation Report boxes in section 5 on page 1.

As of January 1, 2016, copies of **all** reports must also be provided to the joint occupational health and safety committee or worker representative, as applicable.

15. Determination of causes of incident

Required in Full Report. Analyze the facts and circumstances of the incident to identify underlying factors that led to the incident. Underlying factors include factors that made the unsafe conditions, acts, or procedures in the Preliminary Report possible. Update items from section 9, if needed.

16. Full description of the incident

Required in Full Report. Use the brief description from the Preliminary Report and update it, if necessary.

Employer Incident Investigation Report (EIIR)

Employer's name (legal name and trade name)	Operating location number	WorkSafeBC account number
---	---------------------------	---------------------------

17. Additional corrective actions necessary to prevent recurrence of similar incidents

Additional corrective action <small>(Required in Full Report and Full Corrective Action Report.)</small>	Action assigned to <small>(name and job title)</small>	Expected completion date <small>(yyyy-mm-dd)</small>	Completed date <small>(yyyy-mm-dd)</small>
a)			
b)			
c)			
d)			

18. Persons who carried out or participated in the full investigation

Representative	Name	Job title	Signature <small>(optional)</small>	Date signed <small>(yyyy-mm-dd)</small>
Employer representative				
Worker representative				
Other				

19. Other relevant workplace parties

Company name	Contact person	Contact number or email address
a)		

End of report

Completing all the sections above satisfies the requirements for a Full Investigation Report and a Full Corrective Action Report.

Employers are required to submit **full** investigation reports to WorkSafeBC **within 30 days* of the incident**. Reports may be submitted by fax to 604.276.3247 (Greater Vancouver), toll-free fax 1.866.240.1434, or by mail to PO Box 5350, Stn Terminal, Vancouver BC V6B 5L5. Do **NOT** submit a preliminary report unless you have been so directed by a WorkSafeBC officer.

* Employers can request an extension from a WorkSafeBC officer, **if the full investigation cannot be completed within 30 days**.

As of January 1, 2016, copies of **all** reports must also be provided to the joint occupational health and safety committee or worker representative, as applicable.

Act Index

http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/96492_00

Workers' Compensation Act – Division 10

Employer Accident Reporting and Investigation

[http://www.bclaws.ca/civix/document/LOC/complete/statreg/--%20W%20--/Workers%20Compensation%20Act%20\[R%20SBC%201996\]%20c.%20492/00_Act/96492_03.xml#division_d2e14036](http://www.bclaws.ca/civix/document/LOC/complete/statreg/--%20W%20--/Workers%20Compensation%20Act%20[R%20SBC%201996]%20c.%20492/00_Act/96492_03.xml#division_d2e14036)

68. Immediate notice of certain accidents

- (1) An employer must immediately notify the Board of the occurrence of any accident that
 - (a) resulted in serious injury to or the death of a worker,
 - (b) involved a major structural failure or collapse of a building, bridge, tower, crane, hoist, temporary construction support system or excavation,
 - (c) involved the major release of a hazardous substance,
 - (d) involved a fire or explosion that had a potential for causing serious injury to a worker, or
 - (e) was an incident required by regulation to be reported.
- (2) Except as otherwise directed by an officer of the Board or a peace officer, a person must not disturb the scene of an accident that is reportable under subsection (1) except so far as is necessary to
 - (a) attend to persons injured or killed,
 - (b) prevent further injuries or death, or
 - (c) protect property that is endangered as a result of the accident.

69. Incidents that must be investigated

- (1) An employer must conduct a preliminary investigation under section 71 and a full investigation under section 72 respecting any accident or other incident that
 - (a) is required to be reported under section 68,
 - (b) resulted in injury to a worker requiring medical treatment,
 - (c) did not involve injury to a worker, or involved only minor injury not requiring medical treatment, but had a potential for causing serious injury to a worker, or
 - (d) was an incident required by regulation to be investigated.
- (2) Subsection (1) does not apply in the case of a vehicle accident occurring on a public street or highway.



70. Investigation process

- (1) An investigation required under this Division must be carried out by persons knowledgeable about the type of work involved and, if they are reasonably available, with the participation of the employer or a representative of the employer and a worker representative.
- (2) For the purposes of subsection (1), the participation of the employer or a representative of the employer and a worker representative includes, but is not limited to, the following activities:
 - (a) viewing the scene of the incident with the persons carrying out the investigation;
 - (b) providing advice to the persons carrying out the investigation respecting the methods used to carry out the investigation, the scope of the investigation or any other aspect of the investigation;
 - (c) other activities, as prescribed by the Board.
- (3) The employer must make every reasonable effort to have available for interview by a person conducting the investigation, or by an officer, all witnesses to the incident and any other persons whose presence might be necessary for a proper investigation of the incident.
- (4) The employer must record the names, addresses and telephone numbers of persons referred to in subsection (3).

71. Preliminary investigation, report and follow-up action

- (1) An employer must, immediately after the occurrence of an incident described in section 69, undertake a preliminary investigation to, as far as possible,
 - (a) identify any unsafe conditions, acts or procedures that significantly contributed to the incident, and
 - (b) if unsafe conditions, acts or procedures are identified under paragraph (a) of this subsection, determine the corrective action necessary to prevent, during a full investigation under section 72, the recurrence of similar incidents.
- (2) The employer must ensure that a report of the preliminary investigation is
 - (a) prepared in accordance with the policies of the board of directors,
 - (b) completed within 48 hours of the occurrence of the incident,
 - (c) provided to the Board on request of the Board, and
 - (d) as soon as practicable after the report is completed, either
 - (i) provided to the joint committee or worker health and safety representative, as applicable, or
 - (ii) if there is no joint committee or worker health and safety representative, posted at the workplace.



- (3) Following the preliminary investigation, the employer must, without undue delay, undertake any corrective action determined to be necessary under subsection (1) (b).
- (4) If the employer takes corrective action under subsection (3), the employer, as soon as practicable, must
 - (a) prepare a report of the action taken, and
 - (b) either
 - (i) provide the report to the joint committee or worker health and safety representative, as applicable, or
 - (ii) if there is no joint committee or worker health and safety representative, post the report at the workplace.

72. Full investigation, report and follow-up action

- (1) An employer must, immediately after completing a preliminary investigation under section 71, undertake a full investigation to, as far as possible,
 - (a) determine the cause or causes of the incident investigated under section 71,
 - (b) identify any unsafe conditions, acts or procedures that significantly contributed to the incident, and
 - (c) if unsafe conditions, acts or procedures are identified under paragraph (b) of this subsection, determine the corrective action necessary to prevent the recurrence of similar incidents.
- (2) The employer must ensure that a report of the full investigation is
 - (a) prepared in accordance with the policies of the board of directors,
 - (b) submitted to the Board within 30 days of the occurrence of the incident, and
 - (c) within 30 days of the occurrence of the incident, either
 - (i) provided to the joint committee or worker health and safety representative, as applicable, or
 - (ii) if there is no joint committee or worker health and safety representative, posted at the workplace.
- (3) The Board may extend the time period, as the Board considers appropriate, for submitting a report under subsection (2) (b) or (c).
- (4) Following the full investigation, the employer must, without undue delay, undertake any corrective action determined to be necessary under subsection (1) (c).
- (5) If the employer takes corrective action under subsection (4), the employer, as soon as practicable, must
 - (a) prepare a report of the action taken, and
 - (b) either
 - (i) provide the report to the joint committee or worker health and safety representative, as applicable, or
 - (ii) if there is no joint committee or worker health and safety



representative, post the report at the workplace.

73. Employer or supervisor must not attempt to prevent reporting

An employer or supervisor must not, by agreement, threat, promise, inducement, persuasion or any other means, seek to discourage, impede or dissuade a worker of the employer, or a dependant of the worker, from reporting any of the following to the Board:

- (a) an injury or allegation of injury, whether or not the injury occurred or is compensable under the compensation provisions;
- (b) an illness, whether or not the illness exists or is an occupational disease compensable under the compensation provisions;
- (c) a death, whether or not the death is compensable under the compensation provisions;
- (d) a hazardous condition or allegation of a hazardous condition in any work to which the OHS provisions apply.





Cause Definitions

Cause		Definition	Example
1.	Work Practices or Rules	<p>Policy, rules, standards or procedures not developed or inadequate and/or non-compliant with written policy, rules, standards or procedures.</p> <p>Any intentional act to injure people, damage property or interrupt a process or production.</p>	<p>People, including supervisors, are aware of a dangerous condition, but fail to advise other people and/or management; it includes the failure to provide adequate safety training. Any activity not part of the normal routine of work which creates a disruptive or hazardous situation, usually done for “fun” or to ease boredom.</p>
2.	Use of Equipment, Tools	<p>Operators not operating their equipment according to manufacturer’s specifications, site standards or written procedures. Running or otherwise rushing a task such that work is performed unsafely. Driving vehicles or operating other equipment outside of design or prescribed limits. Using equipment or tools for purposes they are not designed for. Continuing to use hazardous, poorly operating equipment <u>known</u> to be defective.</p>	<p>Situations where special rules, special permits or skill training are required. Not following prescribed procedures, “using the wrong tool for the job”. Driving vehicles or operating other equipment outside of design or prescribed limits.</p>
3.	Grip or Hold	<p>Failure to secure an object, manually or with the use of a mechanical device(s), such that the object is inadvertently released.</p>	<p>Drums on a pallet are lifted and fall off because they were not restrained/secured prior to lift.</p>



Cause		Definition	Example
4.	Lifting, Pushing, Pulling	Working in any of the following postures: hands above head; elbows above shoulders; wrist, neck or back bent (without ability to vary posture); squatting, kneeling to such an extent that pain or injury occurred. Exerting force beyond a worker's individual limits while manually lifting or lowering an object. Exerting force beyond a worker's individual limits while manually pushing, pulling or sliding an object.	Loading materials incorrectly either in number, sequence, distribution or size in vehicles, equipment or storage areas. Causing injury to the person doing the lifting, injury to other people, damaging property or interrupting process through an improper lifting technique.
5.	Obtain Assistance	Failing to get necessary assistance (e.g. personnel, equipment, or expertise) to perform work safely.	Cant falls off load and worker tries to lift it back on by himself.
6.	Warnings or Instructions	People, including supervisors, are aware of a dangerous condition, but fail to advise other people and/or management. This includes the failure to provide adequate safety education or knowledge.	People, including supervisors, are aware of a dangerous condition, but fail to advise other people and/or management; it includes the failure to provide adequate safety training.
7.	Lockout	Any failure to adequately de-energize equipment or failure to completely follow lock out procedures.	Not shutting down or preventing access to hazardous or improperly operating equipment or area, not locking-out electrical or operating equipment.
8.	PPE Use	Not using, using as designed, or maintaining proper PPE.	Changing chipper knives with wrong type gloves.
9.	Awareness of Surroundings	Not paying attention to what is going on around the work area. Something observable and important for the safe completion of a task went unnoticed. Failure to recognize changing work conditions and new hazards (e.g. not using RADAR)	Equipment was not stopped when piece jammed up.



Cause		Definition	Example
10.	Placement, Storage, or Securement	Not shutting down or preventing access to hazardous or improperly operating equipment or area. Not locking-out electrical or operating equipment. Placing equipment and/or materials in a hazardous position. Loading materials incorrectly either in number, sequence distribution or size in vehicles, equipment or storage areas. People taking a position so as to cause injury, damage to property or loss to process; loss could result from one particular event or over a period of time.	Placing people, equipment and/or materials in a hazardous or disruptive position. Placing people or equipment in such a position as to cause injury to the operator or others, damage to equipment or loss to process; loss could result from one particular event or over a period of time.
11.	Repetitive Motion	A series of motions repeated frequently with little variation.	Manual stamp hammering of logs results in worker with sore arms.
12.	Use of Safety Devices	Not installing, removing or altering guards, barriers, governors or warning devices such that they do not provide protection as designed.	Causing guards, barriers, governors or warning devices in place not to operate as designed (could be more dangerous than removing a device since others may believe it would operate properly if there).
13.	Under the Influence of Alcohol and/or Drugs	Using over-the-counter and/or prescription drugs, controlled substances and uncontrolled substances in a manner that impedes the employee's ability to perform their work safely.	Includes over-the-counter and prescription drugs as well as controlled substances.
14.	Weather Conditions	Adverse weather conditions (snow, wind, etc.) that has a causative relationship in the incident.	Cold weather results in icy walkway and road conditions.
15.	Fire / Explosion	Injury as a result of a fire or explosion.	Mislabeled or not labeled container is cut open with disc grinder resulting in explosion and burns to worker.



Cause		Definition	Example
16.	Guards and/or Barriers	Includes guards or barriers, which do not provide the needed protection or are not in place.	While cleaning around reduction gear sprocket, the guard is left off and board inadvertently gets caught in gear.
17.	Housekeeping, Disorder	Includes presence of contaminants or other conditions e.g.: slippery substances on floor, which should have been cleaned up; unnecessary items, inefficiency in the storing and placement of tools, materials and equipment.	Includes presence of contaminants or other disruptive substances, unnecessary items, inefficiency in the availability of tools, materials and equipment.
18.	Worksite Conditions, Congestion, Visibility	Working environments that are unusually congested or constrictive of movement such that it impairs the employee's ability to perform tasks safely and/or limits safe access/egress. Visibility blurred, impaired, blocked or any other reason the individual may not have clear sight of surroundings.	Rear view mirror is broken and upcoming traffic is not visible.
19.	Warning Systems	Includes communication of warnings and coverage of required areas (e.g.: signs, labels, color-coding, available warning signs and lights).	Includes communication of warnings and coverage of required areas (e.g., signs, labels, colour-coding, available warnings and lights).
20.	Protective Equipment	Includes PPE not available or maintained in a sanitary or usable condition.	Kevlar gloves not available for filer.
21.	Labeling	Lack of or inadequate labeling which can be: instructions, caution, WHMIS related etc. that alerts the user to the potential hazard of the product(s) being used.	No label is put on confined space area.



Cause		Definition	Example
22.	Evacuation or Treatment Methods, Timing	Emergency response timing and/or procedures for evacuations and treatment methods do not exist, do not provide adequate detail, are not communicated, and/or not understood.	Workers do not understand under what conditions or when evacuation is necessary under wind conditions.
23.	Work Planning or Programming	Failure to either prepare and/or follow work plans.	Work started on site without an ERP in place. A worker is injured and the first aid response doesn't go well.
24.	Communication Standards	Inadequate communication standards, guidelines.	Resource road radio calling procedures are not well known. Radio frequency signs are missing.
25.	Policy, Procedures, Practices or Guidelines	Inadequate written standards, guidelines, detailing roles and responsibilities.	Safe work procedures are very general and do not have specific information for this type of operation. Workers don't have all the necessary information and it leads to an incident.
26.	Performance is Awarded (tolerated)	Inconsistent feedback on individual performance.	Worker takes safety shortcuts but their production is good so the supervisor doesn't say anything.
27.	Performance Feedback	Lack of leadership follow up for employees taking shortcuts, doing jobs unsafely. Perceptions that lead to an employee belief that not following standards and safety practices is acceptable.	Management has not consistently enforced wearing of PPE, allowing workers to not wear hardhats when its hot. Employee is struck in the head and the injury is more severe due to lack of hardhat.



Cause		Definition	Example
28.	Supervision / Leadership	Site and/or business leadership who do not adequately fulfill their responsibilities for: planning, organizing, leading or controlling safety performance.	Supervisor is rarely on site to lead their crew and control safety hazards.
29.	Assessment of Needs, Risks and / or Hazards	Inadequate planning to assess the risk of any work activity (large or small) by first: identifying all key hazards, evaluating the risk, developing a safe plan, implementing the plan and measuring the plan effectiveness - before the work begins.	A comprehensive walk-through of the field site is not completed so steep slope and rock bluff hazards are missed.
30.	Maintenance System	Appropriate maintenance programs not in place; not detailed enough to identify key hazards and/or schedules not being followed.	Machinery doesn't receive regular preventative maintenance and it fails leading to a loss of production.
31.	Engineering or Design	Insufficient hazard identification and control methods applied to any project (large or small) at the; conceptual, design, specification, construction, commissioning and/or operating stage.	New office building constructed in a heavily forested area that is prone to wildfires.
32.	Nature and Timing of Inspections	Inspection programs do not exist, are insufficient or are not conducted on a frequent enough basis to assure hazardous conditions are identified and controlled.	There are no shop inspections conducted so the build up of the flammable materials is missed which leads to a fire.
33.	Purchasing Standards: Tools, Equipment, Materials	Proper tools or equipment not available and/or to do the job safely and effectively.	Improper tires purchased for pick up trucks leading to frequent flat tires and loss of traction incidents.



Cause		Definition	Example
34.	Training Standards	Training program(s) not in place, adequate, and/or followed. A written standard and/or procedure not; in place, adequate and/or being followed.	Training new employees is usually done by whatever supervisor is on shift. There is no written procedure on what this orientation should include.
35.	Change Management	Inadequate process is in place for recognizing, documenting and managing all changes which may affect safety and health of personnel.	A new piece of equipment has been purchased and used in the operation. Safe Work Procedures have not been developed for using it.
36.	Employee Skills, Competencies	Insufficient training/education to give employee(s) the knowledge to perform a task or work activity safely or to meet policy, standards, practices or procedures.	A new worker attempts to move a forklift but hasn't received proper training yet and collides with a building.
37.	Fatigue Due to Lack of Rest	Mental and or physical fatigue due to shift length, work and non-work activities.	Supervisor falls asleep while driving home from work and the pickup goes off the road.
38.	Mental Stress / Physical Stress	On or off the job mental stress, emotional overload, fatigue, frustration, etc. which impairs judgment and or job/task proficiency, on or off the job physical stress, injury or illness, fatigue, health hazard exposure, oxygen deficiency, constrained movement, drugs, etc.	Worker is distracted by a stressful situation at home and misses spotting a hazard at work. Worker is ill, sore and is unable to move their head properly and misses seeing a worker trying to move by their loader.
39.	Physical Capability	Any mismatch of an employee's physical capability with the normal, physical demands of the task or work.	Worker tries to lift a load that would normally require two people to move.
40.	Other		



Resource: Basic Incident Investigation Report – Example A

Incident Investigation – Example A

SECTION 1		Please refer to reference material on pages 5 and 6 of this form to assist in filling out required fields.				
Company Name		WorkSafeBC Account #		Incident # (Office Use Only)	Date and Time of Incident	
ABC Contracting		123456		5	17-Jul-26	
Company Address (include city, province and postal code)				Company Contact (include name, phone # and email)		
Box 845, Anytown, BC, V0H 1N0				Sue Black, 250-777-7777, sblack@gmail.com		
Types Major Incidents All the following types of incidents must be investigated.		<p>- Step 1: A preliminary report and interim corrective action report (Sections 1 and 2) must be completed within 48 hours and submitted to WorkSafeBC if requested.</p> <p>- Step 2: A full investigation (Sections 1, 2 and 3) must be completed and submitted to WorkSafeBC within 30 days.</p>				
<input type="checkbox"/> Medical Treatment	<input type="checkbox"/> Serious Injury or Fatality	<input type="checkbox"/> Close Call or Minor Injury with the Potential to Cause Serious Injury		<input type="checkbox"/> Major Structural Failure or Collapse		
<input type="checkbox"/> Major release of a Hazardous Substance		<input type="checkbox"/> Blasting Incident Causing Injury	<input type="checkbox"/> Dangerous Incident Involving Explosives Other Than Blasting Incident		<input type="checkbox"/> Diving	
Types of Minor Incidents		- These incidents are not required to be investigated by WorkSafeBC but companies may choose to do an investigation.				
<input type="checkbox"/> First Aid	<input type="checkbox"/> Medical Aid	<input type="checkbox"/> Property Damage	<input type="checkbox"/> Process Loss	<input checked="" type="checkbox"/> Close Call with No Potential for Serious Injury		
Report Stage						
<input checked="" type="checkbox"/> Preliminary Report Date Completed: 17-Jul-26		<input checked="" type="checkbox"/> Interim Corrective Action Date Completed: 17-Aug-31		<input checked="" type="checkbox"/> Full Report Date Completed: 17-Jul-30	<input checked="" type="checkbox"/> Full Corrective Action Report Date Completed: 17-Jul-26	
Injured/Involved Person(s) Name(s)		Department (if applicable)		Supervisor		
Bill Brown		Field Work		Sue Black		
<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Employee	Witness(es)	Al Green			
<input type="checkbox"/> Visitor	<input type="checkbox"/> Contractor	Operation Condition at Time of Occurrence (select one only)		<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Scheduled Maintenance <input type="checkbox"/> Upset		
Contractor Business Name		N/A				
Exact Location of Incident (Address, coordinates, block, room, etc.)		302 Road at 46 km				
Date Reported (YY-MMM-DD)	Date Investigated (YY-MMM-DD)	Date of Last SWP Review (YY-MMM-DD)	Time in Position			
17-Jul-29	17-Jul-30	14-May-01	Years: 3		Months/Days: 2 months	
Cost Estimate: Property / Equipment Damage			\$5000			
Severity Level (use reference material located on page 5 of this form)			High → Low			
1	What was is the severity level of this incident? (please choose one)		<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input checked="" type="checkbox"/> 4
2	What could have been the <i>potential</i> severity level? (please choose one)		<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input checked="" type="checkbox"/> 4



SECTION 2 – Immediate Cause Analysis and Corrective Actions

Primary Type of Incident (select one)		
<input checked="" type="checkbox"/> Struck against (running, bumping into)	<input type="checkbox"/> Contact with (electricity, heat, cold, radiation, caustics, toxics, biological, noise)	<input type="checkbox"/> Overstress or overpressure
<input type="checkbox"/> Struck by (hit by moving object)	<input type="checkbox"/> Caught in (pinch & nip points)	<input type="checkbox"/> Violence
<input type="checkbox"/> Fall from elevation to lower level	<input type="checkbox"/> Caught between / under (crushed)	<input type="checkbox"/> Overexertion or ergonomic
<input type="checkbox"/> Fall from same level (slips & fall, trip over)	<input type="checkbox"/> Environmental release	<input type="checkbox"/> Other

Incident Description (describe the sequence of events leading up to, during the incident)
Driving unit 2 out to work location. Driving too fast and didn't make it around corner. Went off the road and into the ditch, luckily missed several large trees. Lots of damage to Unit 2 and it needed to be towed back into town.
Bill and passenger were banged up and went to the hospital to be checked out. The doctor said that they were fine.

Immediate Causes (select and describe <u>all</u> that apply)					
1	<input checked="" type="checkbox"/> Failure to follow safe work practices or rules	9	<input checked="" type="checkbox"/> Inadequate awareness of surroundings	17	<input type="checkbox"/> Poor housekeeping / disorder
2	<input type="checkbox"/> Improper use of equipment / tools	10	<input type="checkbox"/> Improper placement, storage or securement	18	<input type="checkbox"/> Worksite conditions / congestion / visibility
3	<input type="checkbox"/> Inadequate grip or hold	11	<input type="checkbox"/> Repetitive motion	19	<input type="checkbox"/> Inadequate warning systems
4	<input type="checkbox"/> Improper lifting / pushing / pulling	12	<input type="checkbox"/> Inadequate use of safety devices	20	<input type="checkbox"/> Inadequate / improper protective equipment
5	<input type="checkbox"/> Failure to obtain assistance	13	<input type="checkbox"/> Under influence of alcohol and / or drugs	21	<input type="checkbox"/> Inadequate labeling
6	<input type="checkbox"/> Failure to warn or instruct	14	<input type="checkbox"/> Weather conditions	22	<input type="checkbox"/> Evacuation or treatment delay
7	<input type="checkbox"/> Failure to lockout	15	<input type="checkbox"/> Fire / explosion	23	<input type="checkbox"/> Other – please specify:
8	<input type="checkbox"/> Failing to use PPE properly	16	<input type="checkbox"/> Absence of guards and / or barriers		

Description of Immediate Causes (for each item selected above, please describe here):
Driving too fast for the conditions and wasn't able to steer around the corner.



Resource: Basic Incident Investigation Report – Example A

Interim Corrective Actions (immediate, short and long term) - implemented to prevent future occurrence at the site	By Whom	By When (YY-MMM-DD)	Date Completed (YY-MMM-DD)	Verified by (initial)
Reviewed Driving SWP with Bill.	Sue Black	17-Aug-31	17-Aug-31	

SECTION 3 – Root Cause Analysis and Corrective Actions

Root Causes (select and describe <u>all</u> unsafe acts, conditions and procedures that apply)					
1	<input type="checkbox"/>	Inadequate work planning or programming	7	<input type="checkbox"/>	Inadequate assessment of needs, risks and / or hazards
2	<input type="checkbox"/>	Inadequate communication standards	8	<input type="checkbox"/>	Inadequate maintenance system
3	<input type="checkbox"/>	Inadequate policy, procedures, practices or guidelines	9	<input type="checkbox"/>	Inadequate engineering and / or design
4	<input type="checkbox"/>	Improper performance is rewarded (tolerated)	10	<input type="checkbox"/>	Inadequate or lack of inspections
5	<input type="checkbox"/>	Inadequate performance feedback	11	<input type="checkbox"/>	Inadequate purchasing standards: tools / equipment / materials
6	<input type="checkbox"/>	Supervision / leadership	12	<input type="checkbox"/>	Inadequate training standards
13	<input type="checkbox"/>	Inadequate change management			
	<input checked="" type="checkbox"/>	Inadequate employee skill	14		
	<input type="checkbox"/>	Fatigue due to lack of rest	15		
	<input type="checkbox"/>	Mental / physical stress	16		
	<input type="checkbox"/>	Inadequate physical capability	17		
	<input type="checkbox"/>	Other – please specify:	18		
Description of Root Causes (for each item selected above, please describe here):					
Poor driving habits – driving too fast and not paying attention to the road.					

Full Corrective Actions (immediate, short term, long term) -implemented to prevent future occurrences across the company	By Whom	By When (YY-MMM-DD)	Date Completed (YY-MMM-DD)	Verified by (initial)
Review incident with staff.	All supervisors	17-Aug-31	17-Aug-31	



**SECTION 4 –
Additional Information**

Injury Information (select all that apply)

Nature of Injury		
<input type="checkbox"/> Allergies / sensitivities	<input type="checkbox"/> Cut / puncture / open wound	<input type="checkbox"/> Hernia / rupture
<input type="checkbox"/> Amputation	<input type="checkbox"/> Dislocation	<input type="checkbox"/> Infection
<input type="checkbox"/> Asphyxiation	<input type="checkbox"/> Electric shock	<input type="checkbox"/> Respiratory conditions
<input type="checkbox"/> Bruise / contusion	<input type="checkbox"/> Foreign body	<input type="checkbox"/> Scratch / abrasion
<input type="checkbox"/> Burn	<input type="checkbox"/> Fracture	<input type="checkbox"/> Sprains / strains – joints, muscles
<input type="checkbox"/> Concussion	<input type="checkbox"/> Hearing loss	<input checked="" type="checkbox"/> Other occupational injuries
Body Part		
<input type="checkbox"/> Abdomen <input type="checkbox"/> L <input type="checkbox"/> R	<input type="checkbox"/> Face <input type="checkbox"/> L <input type="checkbox"/> R	<input type="checkbox"/> Neck <input type="checkbox"/> L <input type="checkbox"/> R
<input type="checkbox"/> Ankle <input type="checkbox"/> L <input type="checkbox"/> R	<input type="checkbox"/> Hand <input type="checkbox"/> L <input type="checkbox"/> R	<input type="checkbox"/> Shoulder <input type="checkbox"/> L <input type="checkbox"/> R
<input type="checkbox"/> Arm <input type="checkbox"/> L <input type="checkbox"/> R	<input type="checkbox"/> Wrist <input type="checkbox"/> L <input type="checkbox"/> R	<input type="checkbox"/> Foot <input type="checkbox"/> L <input type="checkbox"/> R
<input type="checkbox"/> Back <input type="checkbox"/> L <input type="checkbox"/> R	<input type="checkbox"/> Groin <input type="checkbox"/> L <input type="checkbox"/> R	<input type="checkbox"/> Mouth / teeth <input type="checkbox"/> L <input type="checkbox"/> R
<input type="checkbox"/> Chest <input type="checkbox"/> L <input type="checkbox"/> R	<input type="checkbox"/> Head <input type="checkbox"/> L <input type="checkbox"/> R	<input type="checkbox"/> Multiple part <input type="checkbox"/> L <input type="checkbox"/> R
<input type="checkbox"/> Ear <input type="checkbox"/> L <input type="checkbox"/> R	<input type="checkbox"/> Hip <input type="checkbox"/> L <input type="checkbox"/> R	<input type="checkbox"/> Other <input type="checkbox"/> L <input type="checkbox"/> R
<input type="checkbox"/> Elbow <input type="checkbox"/> L <input type="checkbox"/> R	<input type="checkbox"/> Knee <input type="checkbox"/> L <input type="checkbox"/> R	
<input type="checkbox"/> Eye <input type="checkbox"/> L <input type="checkbox"/> R	<input type="checkbox"/> Leg <input type="checkbox"/> L <input type="checkbox"/> R	
Source of Injury		
<input type="checkbox"/> Chemicals	<input type="checkbox"/> Human	<input type="checkbox"/> Petroleum products
<input type="checkbox"/> Conveyor	<input type="checkbox"/> Ladders	<input type="checkbox"/> Power tools
<input type="checkbox"/> Debris / scrap	<input type="checkbox"/> Logs	<input type="checkbox"/> Slivers
<input type="checkbox"/> Electrical equipment	<input type="checkbox"/> Lumber	<input type="checkbox"/> Steam
<input type="checkbox"/> Fasteners	<input type="checkbox"/> Machine parts	<input type="checkbox"/> Work area
<input type="checkbox"/> Fire / smoke	<input type="checkbox"/> Mobile equipment	<input type="checkbox"/> Working surface
<input type="checkbox"/> Hand tools	<input type="checkbox"/> Noise	<input type="checkbox"/> Other (provide details below):
<input type="checkbox"/> Heat	<input type="checkbox"/> Office equipment	
<input type="checkbox"/> Hoisting equipment	<input type="checkbox"/> Pallets	
Other		

Approvals	Print name *must include at least one management and one worker	Signature	Date (YY- MMM-DD)
Investigation leader	Sue Black	<input checked="" type="checkbox"/> Management <input type="checkbox"/> Worker	
Investigation Team Members		<input type="checkbox"/> Management <input type="checkbox"/> Worker	
		<input type="checkbox"/> Management <input type="checkbox"/> Worker	
		<input type="checkbox"/> Management <input type="checkbox"/> Worker	
Safety Representative		<input type="checkbox"/> Management <input type="checkbox"/> Worker	
Immediate Supervisor	Sue Black		
Manager			

Reference Material:

Operation Condition at Time of Occurrence	
Normal:	Normal operating process
Scheduled Maintenance:	Planned and scheduled maintenance
Upset:	An interruption and / or non-routine break in normal operating process. Includes unscheduled maintenance
Date of last SWP Review:	Indicates the most recent date the Safe Work Procedures (also known as JSB, JSA) for the job was reviewed and signed off with a supervisor

Severity Level – Use the following table to determine the severity level of the incident (question 1).

Severity Level	
1	Level 1 Fatality OR Property Damage Exceeding \$500,000
	Level 2 Employee admitted to hospital / probable permanent disability OR property damage between \$100,000 and \$500,000
	Level 3 Employee not able to perform all of their regular duties OR property damage between \$10,000 and \$100,000
	Level 4 Employee able to perform all their regular duties OR property damage less than \$10,000

Potential Severity Level – Use the Severity Level and Probability of Occurrence grid to determine the potential severity level (question 2).

Probability Index of Occurrence		Example
2	A Likely to occur immediately	Could happen any day
	B Probable in time	Likely to happen if conditions are repeated
	C Possible in time	Under the right conditions, the incident might be repeated
	D Remotely possible	Even under similar conditions, it is unlikely the incident will be repeated

		Probability of Occurrence			
		A	B	C	D
Potential Severity	1	1	1	2	2
	2	1	2	2	3
	3	2	2	3	3
	4	2	2	3	4

For page 1, Question 2, mark the number that is indicated on the grid above

Resource: Basic Incident Investigation Report – Example A

Self-Check for Incident Investigators:

-Optional information to help in the completion of this form.

Incident Description:

- Is the incident clearly described so that the event is understandable to a non-participant?
- Are the primary people, equipment, materials and environment clearly identified? Are their positions relative to each other described?
- Is there a clear description of the type of injury and/or damage, or the potential for injury or damage?
- Is the sequence of events clearly described, including the events leading up to, during and after the incident?
- Has appropriate use been made of photos and/or drawings?

Immediate Causes (If removed, the incident would not have happened):

- Has one or more immediate causes been identified and checked off?
- Is there a written description for each immediate cause and does it clearly state how the cause is connected to the incident?

Root Causes (Underlying factors that caused the incident. Identify root causes by asking why questions):

- Has one or more root causes been identified and checked off?
- Has the why question been asked enough times to uncover all the root causes?
- For each root cause is there an adequate written description and explanation that can be used to develop meaningful corrective actions?

Corrective Actions:

- Is there a clear description of the corrective actions?
- Has immediate action been taken to remove/reduce the immediate causes?
- Do corrective actions address each of the root causes?
- Do the corrective actions clearly identify - *Who will do what by when?*
- Am I satisfied that this investigation will prevent recurrence of these types of incidents?



Resource: Basic Incident Investigation Report – Example B

Incident Investigation – Example B

SECTION 1		Please refer to reference material on pages 5 and 6 of this form to assist in filling out required fields.				
Company Name		WorkSafeBC Account #		Incident # (Office Use Only)	Date and Time of Incident (YY-MMM-DD)	
ABC Contracting		123456		2017-005	17-Jul-26 8:30 am	
Company Address (include city, province and postal code)				Company Contact (include name, phone # and email)		
Box 845, Anytown, BC, V0H 1N0				Sue Black, 250-777-7777, sblack@gmail.com		
Types Major Incidents All the following types of incidents must be investigated.		<p>- Step 1: A preliminary report and interim corrective action report (Sections 1 and 2) must be completed within 48 hours and submitted to WorkSafeBC if requested.</p> <p>- Step 2: A full investigation (Sections 1, 2 and 3) must be completed and submitted to WorkSafeBC within 30 days.</p>				
<input type="checkbox"/> Medical Treatment	<input type="checkbox"/> Serious Injury or Fatality	<input checked="" type="checkbox"/> Close Call or Minor Injury with the Potential to Cause Serious Injury		<input type="checkbox"/> Major Structural Failure or Collapse		
<input type="checkbox"/> Major release of a Hazardous Substance	<input type="checkbox"/> Blasting Incident Causing Injury	<input type="checkbox"/> Dangerous Incident Involving Explosives Other Than Blasting Incident		<input type="checkbox"/> Diving Incident		
Types of Minor Incidents		- These incidents are not required to be investigated by WorkSafeBC but companies may choose to do an investigation.				
<input type="checkbox"/> First Aid	<input checked="" type="checkbox"/> Medical Aid	<input type="checkbox"/> Property Damage	<input type="checkbox"/> Process Loss	<input checked="" type="checkbox"/> Close Call with No Potential for Serious Injury		
Report Stage						
<input checked="" type="checkbox"/> Preliminary Report Date Completed: 17-Jul-26		<input checked="" type="checkbox"/> Interim Corrective Action Date Completed: 17-Aug-31		<input checked="" type="checkbox"/> Full Report Date Completed: 17-Jul-30	<input checked="" type="checkbox"/> Full Corrective Action Report Date Completed: 17-Sep-30	
Injured/Involved Person(s) Name(s)		Department (if applicable)		Supervisor		
Bill Brown (Worker 1) and Al Green (Worker 2)		Field Work		Sue Black		
<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Employee	Witness(es) None – Both workers were travelling in same truck				
<input type="checkbox"/> Visitor	<input type="checkbox"/> Contractor	Operation Condition at Time of Occurrence (select one only)		<input type="checkbox"/> Normal <input type="checkbox"/> Scheduled Maintenance <input checked="" type="checkbox"/> Upset		
Contractor Business Name		N/A				
Exact Location of Incident (Address, coordinates, block, room, etc.)		302 Road at 46.5 km – truck was travelling in the up direction and went into the ditch on the right side of the road				
Date Reported (YY-MMM-DD)	Date Investigated (YY-MMM-DD)	Date of Last SWP Review (YY-MMM-DD)	Time in Position			
17-Jul-26	17-Jul-26	14-May-01	Years: 3		Months/Days: 2 months	
Cost Estimate: Property / Equipment Damage			\$5000			
Severity Level (use reference material located on page 5 of this form)			High → Low			
1	What was is the severity level of this incident? (please choose one)		<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input checked="" type="checkbox"/> 4
2	What could have been the <i>potential</i> severity level? (please choose one)		<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 4



SECTION 2 –Immediate Cause Analysis and Corrective Actions

Primary Type of Incident (select one)		
<input checked="" type="checkbox"/> Struck against (running, bumping into)	<input type="checkbox"/> Contact with (electricity, heat, cold, radiation, caustics, toxics, biological, noise)	<input type="checkbox"/> Overstress or overpressure
<input type="checkbox"/> Struck by (hit by moving object)	<input type="checkbox"/> Caught in (pinch & nip points)	<input type="checkbox"/> Violence
<input type="checkbox"/> Fall from elevation to lower level	<input type="checkbox"/> Caught between / under (crushed)	<input type="checkbox"/> Overexertion or ergonomic
<input type="checkbox"/> Fall from same level (slips & fall, trip over)	<input type="checkbox"/> Environmental release	<input type="checkbox"/> Other

Incident Description (describe the sequence of events leading up to, during the incident)

Worker 1 arrived at the office at 5:30 am and gathered together the field equipment and maps needed for the day's work. The plan was for Worker 1 and Worker 2 to leave for the work location at 6:00 am. Worker 2 was late and didn't arrive at the office until 6:00 am and the two left to drive to the field site at 6:15 am. Worker 2 had been up late the last 4 nights working on his house.

Worker 2 was the driver of the pickup, Unit 2, and drove out to the site via Highway 2 and then the 302 road. The 302 road is a gravel road and conditions were dry and rough. Weather conditions were clear but the visibility was limited by the dusty road conditions. As Worker 2 drove up the road he failed to make it around the corner at 46.5 km on the 302 road. Signs were in place that warned of the upcoming sharp corner. At the time of the incident Worker 1 was asleep in the passenger seat. Worker 2 estimated that he was driving 50 to 60km/hr at the time of the incident. The speed limit on the 302 road is 80 km/hr. Worker 2 is familiar with this road and location of the corner. When asked about the incident, he said he was just tired, not paying attention, didn't realize the corner was coming up that quickly and went into the ditch.

The pickup went down a steep embankment but did not roll. The pickup did not strike any of the large trees located beside the road. See the attached photos and diagram of the incident site. The pickup's undercarriage, exhaust and tires were damaged and the pickup had to be towed back to town. The estimated damage to the vehicle is \$5000. Both Worker 1 and Worker 2 were banged up and injured in the incident. Worker 2 experienced a sore left shoulder. Worker 1 sprained his right wrist. Both workers were transported to the hospital by a welding truck that was heading back to town. At the hospital, they were assessed by a doctor, precautionary x-rays were done but came back negative and both workers were released from hospital. Their supervisor, Sue Black, was notified when the workers arrived at the hospital and transported them to their homes for the remainder of the day. Both workers were able to return to work and their regular duties the next working day, Monday July 29th.



Resource: Basic Incident Investigation Report – Example B

BC Forest Safety

Immediate Causes (select and describe <u>all</u> that apply)								
1	<input checked="" type="checkbox"/>	Failure to follow safe work practices or rules	9	<input checked="" type="checkbox"/>	Inadequate awareness of surroundings	17	<input type="checkbox"/>	Poor housekeeping / disorder
2	<input type="checkbox"/>	Improper use of equipment / tools	10	<input type="checkbox"/>	Improper placement, storage or securement	18	<input checked="" type="checkbox"/>	Worksite conditions / congestion / visibility
3	<input type="checkbox"/>	Inadequate grip or hold	11	<input type="checkbox"/>	Repetitive motion	19	<input type="checkbox"/>	Inadequate warning systems
4	<input type="checkbox"/>	Improper lifting / pushing / pulling	12	<input type="checkbox"/>	Inadequate use of safety devices	20	<input type="checkbox"/>	Inadequate / improper protective equipment
5	<input type="checkbox"/>	Failure to obtain assistance	17	<input type="checkbox"/>	Under influence of alcohol and / or drugs	21	<input type="checkbox"/>	Inadequate labeling
6	<input type="checkbox"/>	Failure to warn or instruct	14	<input type="checkbox"/>	Weather conditions	22	<input type="checkbox"/>	Evacuation or treatment delay
7	<input type="checkbox"/>	Failure to lockout	15	<input type="checkbox"/>	Fire / explosion	23	<input type="checkbox"/>	Other – please specify:
8	<input type="checkbox"/>	Failing to use PPE properly	16	<input type="checkbox"/>	Absence of guards and / or barriers			

Description of Immediate Causes (for each item selected above, please describe here):

Failure to follow safe driving procedures - The safe driving procedures were not followed as the worker did not maintain awareness of the road conditions and did not maintain control of the vehicle. Also the worker was impaired by fatigue which is against the company's Impairment Policy.

Inadequate awareness of surroundings – Fatigue and a lack of attentiveness caused the driver to miss the curve in the road.

Poor visibility – The dusty road conditions contributed to the driver not recognizing and acting appropriately to the upcoming curve.

Interim Corrective Actions (immediate, short and long term) - implemented to prevent future occurrence at the site	By Whom	By When (YY-MMM-DD)	Date Completed (YY-MMM-DD)	Verified by (initial)
Conduct driving assessment with Worker 2 before he drives again. Review driving procedure, expectations and info on fatigue. Conduct additional driver training if necessary.	Sue Black	17-Jul-29	17-Jul-29	
Increased frequency of worker assessments with Worker 2. Conduct one per week and focus on fatigue and driving skills.	Sue Black	17-Aug-31	17-Aug-31	

SECTION 3 – Root Cause Analysis and Corrective Actions

Root Causes (select and describe <u>all</u> unsafe acts, conditions and procedures that apply)								
1	<input type="checkbox"/>	Inadequate work planning or programming	7	<input type="checkbox"/>	Inadequate assessment of needs, risks and / or hazards	13	<input type="checkbox"/>	Inadequate change management
2	<input type="checkbox"/>	Inadequate communication standards	8	<input type="checkbox"/>	Inadequate maintenance system	14	<input checked="" type="checkbox"/>	Inadequate employee skill
3	<input type="checkbox"/>	Inadequate policy, procedures, practices or guidelines	9	<input type="checkbox"/>	Inadequate engineering and / or design	15	<input type="checkbox"/>	Fatigue due to lack of rest
4	<input type="checkbox"/>	Improper performance is rewarded (tolerated)	10	<input type="checkbox"/>	Inadequate or lack of inspections	16	<input type="checkbox"/>	Mental / physical stress
5	<input type="checkbox"/>	Inadequate performance feedback	11	<input type="checkbox"/>	Inadequate purchasing standards: tools / equipment / materials	17	<input type="checkbox"/>	Inadequate physical capability
6	<input type="checkbox"/>	Supervision / leadership	12	<input type="checkbox"/>	Inadequate training standards	18	<input type="checkbox"/>	Other – please specify:



Resource: Basic Incident Investigation Report – Example B

BC Forest Safety

Description of Root Causes (for each item selected above, please describe here):
Supervision – The worker’s supervisor was not aware of the worker’s level of fatigue and did not recognize that the early start time could increase the risk of a fatigue related incident.
Fatigue – The early start time combined with the worker’s late night house project contributed to fatigue which impaired the worker’s ability to drive.

Full Corrective Actions (immediate, short term, long term) -implemented to prevent future occurrences across the company	By Whom	By When (YY-MMM-DD)	Date Completed (YY-MMM-DD)	Verified by (initial)
Supervisors to conduct driver assessments on all drivers. Focus on assessing driving skills, how to handle low visibility conditions, and also talk about personal factors and choices outside of work that may affect performance.	All supervisors (Mike, Sue and Jill)	17-Aug-31	17-Aug-31	
Develop and implement impairment and fatigue awareness training for all staff.	Tim – Safety Coordinator	17-Aug-31	17-Aug-31	
Develop procedure and training for co-pilots. Focus on assisting drivers by spotting hazards, calling kms, etc.	Tim – Safety Coordinator	17-Sep-30	17-Sep-30	
Update worker assessment procedures to increase frequency of assessments during busy field season. Also, add a driver assessment component to the procedure.	Mike - Supervisor	17-Aug-15	17-Aug-15	
Update worker assessment forms to include signs of fatigue and driving info.	Mike - Supervisor	17-Aug-15	17-Aug-15	
Look at how the field work is planned and if there are alternatives to the long drives (camps or other accommodations for example)	Tom - Owner	17-Aug-31	17-Aug-31	

SECTION 4 – Additional Information

Injury Information (select *all* that apply)

Nature of Injury		
<input type="checkbox"/> Allergies / sensitivities <input type="checkbox"/> Amputation <input type="checkbox"/> Asphyxiation <input type="checkbox"/> Bruise / contusion <input type="checkbox"/> Burn <input type="checkbox"/> Concussion	<input type="checkbox"/> Cut / puncture / open wound <input type="checkbox"/> Dislocation <input type="checkbox"/> Electric shock <input type="checkbox"/> Foreign body <input type="checkbox"/> Fracture <input type="checkbox"/> Hearing loss	<input type="checkbox"/> Hernia / rupture <input type="checkbox"/> Infection <input type="checkbox"/> Respiratory conditions <input type="checkbox"/> Scratch / abrasion <input checked="" type="checkbox"/> Sprains / strains – joints, muscles <input type="checkbox"/> Other occupational injuries



Resource: Basic Incident Investigation Report – Example B

Body Part		
<input type="checkbox"/> Abdomen <input type="checkbox"/> L <input type="checkbox"/> R <input type="checkbox"/> Ankle <input type="checkbox"/> L <input type="checkbox"/> R <input type="checkbox"/> Arm <input type="checkbox"/> L <input type="checkbox"/> R <input type="checkbox"/> Back <input type="checkbox"/> L <input type="checkbox"/> R <input type="checkbox"/> Chest <input type="checkbox"/> L <input type="checkbox"/> R <input type="checkbox"/> Ear <input type="checkbox"/> L <input type="checkbox"/> R <input type="checkbox"/> Elbow <input type="checkbox"/> L <input type="checkbox"/> R <input type="checkbox"/> Eye <input type="checkbox"/> L <input type="checkbox"/> R	<input type="checkbox"/> Face <input type="checkbox"/> L <input type="checkbox"/> R <input type="checkbox"/> Hand <input type="checkbox"/> L <input type="checkbox"/> R <input checked="" type="checkbox"/> Wrist <input type="checkbox"/> L <input checked="" type="checkbox"/> R <input type="checkbox"/> Groin <input type="checkbox"/> L <input type="checkbox"/> R <input type="checkbox"/> Head <input type="checkbox"/> L <input type="checkbox"/> R <input type="checkbox"/> Hip <input type="checkbox"/> L <input type="checkbox"/> R <input type="checkbox"/> Knee <input type="checkbox"/> L <input type="checkbox"/> R <input type="checkbox"/> Leg <input type="checkbox"/> L <input type="checkbox"/> R	<input type="checkbox"/> Neck <input type="checkbox"/> L <input type="checkbox"/> R <input checked="" type="checkbox"/> Shoulder <input type="checkbox"/> L <input checked="" type="checkbox"/> R <input type="checkbox"/> Foot <input type="checkbox"/> L <input type="checkbox"/> R <input type="checkbox"/> Mouth / teeth <input type="checkbox"/> L <input type="checkbox"/> R <input type="checkbox"/> Multiple part <input type="checkbox"/> L <input type="checkbox"/> R <input type="checkbox"/> Other <input type="checkbox"/> L <input type="checkbox"/> R
Source of Injury		
<input type="checkbox"/> Chemicals <input type="checkbox"/> Conveyor <input type="checkbox"/> Debris / scrap <input type="checkbox"/> Electrical equipment <input type="checkbox"/> Fasteners <input type="checkbox"/> Fire / smoke <input type="checkbox"/> Hand tools <input type="checkbox"/> Heat <input type="checkbox"/> Hoisting equipment	<input type="checkbox"/> Human <input type="checkbox"/> Ladders <input type="checkbox"/> Logs <input type="checkbox"/> Lumber <input type="checkbox"/> Machine parts <input checked="" type="checkbox"/> Mobile equipment <input type="checkbox"/> Noise <input type="checkbox"/> Office equipment <input type="checkbox"/> Pallets	<input type="checkbox"/> Petroleum products <input type="checkbox"/> Power tools <input type="checkbox"/> Slivers <input type="checkbox"/> Steam <input type="checkbox"/> Work area <input type="checkbox"/> Working surface <input type="checkbox"/> Other (provide details below):
Other		

Approvals	Print name <small>*must include at least one management and one worker</small>	Signature	Date (YY-MMM-DD)	
Investigation leader	Mike White			
	<input checked="" type="checkbox"/> Management <input type="checkbox"/> Worker			
Investigation Team Members	Bill Black			
				<input type="checkbox"/> Management <input checked="" type="checkbox"/> Worker
				<input type="checkbox"/> Management <input type="checkbox"/> Worker
				<input type="checkbox"/> Management <input type="checkbox"/> Worker
Safety Representative	Tim Brown			
	<input type="checkbox"/> Management <input checked="" type="checkbox"/> Worker			
Immediate Supervisor	Sue Black			
Manager	Tom Green			

Reference Material:

Operation Condition at Time of Occurrence	
Normal:	Normal operating process
Scheduled Maintenance:	Planned and scheduled maintenance
Upset:	An interruption and / or non-routine break in normal operating process. Includes unscheduled maintenance
Date of last SWP Review:	Indicates the most recent date the Safe Work Procedures (also known as JSB, JSA) for the job was reviewed and signed off with a supervisor

Severity Level – Use the following table to determine the severity level of the incident (question 1).

Severity Level	
1	Level 1 Fatality OR Property Damage Exceeding \$500,000
	Level 2 Employee admitted to hospital / probable permanent disability OR property damage between \$100,000 and \$500,000
	Level 3 Employee not able to perform all of their regular duties OR property damage between \$10,000 and \$100,000
	Level 4 Employee able to perform all their regular duties OR property damage less than \$10,000

Potential Severity Level – Use the Severity Level and Probability of Occurrence grid to determine the potential severity level (question 2).

Probability Index of Occurrence		Example
2	A Likely to occur immediately	Could happen any day
	B Probable in time	Likely to happen if conditions are repeated
	C Possible in time	Under the right conditions, the incident might be repeated
	D Remotely possible	Even under similar conditions, it is unlikely the incident will be repeated

		Probability of Occurrence			
		A	B	C	D
Potential Severity	1	1	1	1	2
	2	1	2	2	3
	3	2	2	3	3
	4	2	2	3	4

For page 1, Question 2, mark the number that is indicated on the grid above



Resource: Basic Incident Investigation Report – Example B

Self-Check for Incident Investigators:

-Optional information to help in the completion of this form.

Incident Description:

- Is the incident clearly described so that the event is understandable to a non-participant?
- Are the primary people, equipment, materials and environment clearly identified? Are their positions relative to each other described?
- Is there a clear description of the type of injury and/or damage, or the potential for injury or damage?
- Is the sequence of events clearly described, including the events leading up to, during and after the incident?
- Has appropriate use been made of photos and/or drawings?

Immediate Causes (If removed, the incident would not have happened):

- Has one or more immediate causes been identified and checked off?
- Is there a written description for each immediate cause and does it clearly state how the cause is connected to the incident?

Root Causes (Underlying factors that caused the incident. Identify root causes by asking why questions):

- Has one or more root causes been identified and checked off?
- Has the why question been asked enough times to uncover all the root causes?
- For each root cause is there an adequate written description and explanation that can be used to develop meaningful corrective actions?

Corrective Actions:

- Is there a clear description of the corrective actions?
- Has immediate action been taken to remove/reduce the immediate causes?
- Do corrective actions address each of the root causes?
- Do the corrective actions clearly identify - *Who will do what by when?*
- Am I satisfied that this investigation will prevent recurrence of these types of incidents?

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Pickup Crash

Incident Description

Show the short video of the incident when asked “What happened?”

Video in mp4 format and also available online: <https://vimeo.com/901610466/a3c27c818e?share=copy>

The video provides information on an incident that involves a pick up going off the road during dusty conditions. The crew was traveling in a crew-cab pickup with 5 crew members in the truck. There were a few vehicles ahead of the truck, as well as a few behind them. There was a lot of dust in the air from the vehicles. They slowed down due to the dusty conditions and a sun/shade transition.

They then accelerated forward and estimated there was 3 to 5 metres of visibility. The driver missed the corner ahead and the truck went over the edge.

He applied the brakes the whole time but the hill was so steep he could not stop the truck. The date was August 15th.

After viewing the video, participants ask questions related to the 5 Ps to try to gather and organize all of the required information to map out the sequence of events.

At the end of the questions, the instructor coaches the group on information that was missed and questions that could have been asked to obtain it.

The instructor then ‘walks’ the group through using information gathered to complete an employer Incident Investigation Report (form 54E40).

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Pickup Crash

Witness Statement

Key Information from Driver:

- Driving the crew back to the office after the day's work – Aug 15th
- The speed limit is 80km/h on the road and the driver always kept the truck's speed under that
- Lots of traffic on the road which caused dusty conditions
- There was dust control, some sections were better than others
- They slowed down to approx. 10 km/hr for the dusty conditions, just prior to missing the corner and going off the road
- Visibility was very poor, approx. 3 to 5 metres
- Applied the brakes the whole time going down the bank but the vehicle didn't stop until it hit the rocks
- Driver didn't panic and jerk the wheel so the truck went straight down the bank and didn't roll over
- Everyone in the truck was wearing seatbelts and there were no injuries.

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Pickup Crash

Additional Incident Information to Provide:

There will be additional 5P information that participants won't be able to get from interviewing. After the interview, ask them if they would like any other information related to the incident. Provide the following if they ask the appropriate question.

PEOPLE – Experience and training of the driver

PROCESS – Safe Work Procedures for driving

PARTS – Condition of the road and visibility information, Mechanical condition of the vehicle

POSITION – Position of the vehicle, speed

PAPER – Documented safety program and meetings.

POSSIBLE CORRECTIVE ACTIONS

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Pickup Crash

PEOPLE - Experience and Training of the Driver

Source: Training and employment records

The driver of the pickup had a valid driver's licence and had 5 years of gravel resource road driving experience. The employer considers the driver to be careful and he has not had any previous vehicle incidents.

The driver had a driving assessment completed as part of their initial orientation 5 years ago but an assessment has not been done since then. The company does have a worker assessment checklist that is completed on a regular schedule but it doesn't include anything about driving.

The driver was familiar with the road. They had worked in the area and had travelled the road for 5 days just prior to the incident.

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Pickup Crash

PROCESS - Safe Work Procedures for Driving

Source: Company Safety Program

The company does have Safe Work Procedures for driving on resource roads. They are reviewed annually by the staff and the records show that the driver has reviewed the procedures each year.

Safe Work Procedures – Driving – General

PROCEDURES AND PRACTICES:

Conduct a “pre-trip” vehicle check. Use a Vehicle Pre-trip Inspection and Mileage Log to track activity.

Report deficiencies and do not use if equipment is in unsafe condition.

Drive defensively at all times.

Ensure all vehicle occupants are wearing seatbelts. You are responsible for your passengers.

Do not exceed posted speed limits.

On resource roads do not exceed 80kph or posted speed limits.

Drive safely and drive to the existing road conditions. Lower speed as required. Be aware of:

- Narrow roads with over width vehicles;
- Steep, unfavorable and adverse gradients;
- Slippery and variable road surface conditions due to loose gravel, snow, ice or mud;
- Other users.

Use vehicle for intended use only (purpose and weight limitations).

Drive with vehicle lights on at all times.

Secure all heavy or sharp objects in the cab of the vehicle.

Respect that loaded logging trucks have the right of way on single lane roads.

Do not tailgate other vehicles.

Pass trucks or equipment only after you receive a clearly visible and/or audible signal from the operator.

Never chase a runaway vehicle.

Stay on your side of the road.

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Pickup Crash

PARTS - Condition of the road and visibility information, Mechanical condition of the vehicle

Source: Inspection of the road; Interviews with driver and passengers; Mechanic's report on vehicle condition.

The main concern with this road was the lack of visibility due to dust. All other aspects of the road like width and road surface were acceptable and didn't contribute to the incident. There are several sharp corners on the road but these are well signed and easy to drive around in good conditions. There was heavy traffic on the road on the day of the incident which led to the dusty conditions.

A water truck was working and some dust control measures were completed prior to the incident. The driver and passengers reported that the results were variable, with some sections of the road still very dusty.

Mechanical inspection of the pickup by a certified mechanic showed no mechanical problems that would have contributed to the incident.

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Pickup Crash

POSITION - Position of the vehicle before and after going off the road; Details on speed, braking and steering of vehicle during incident.

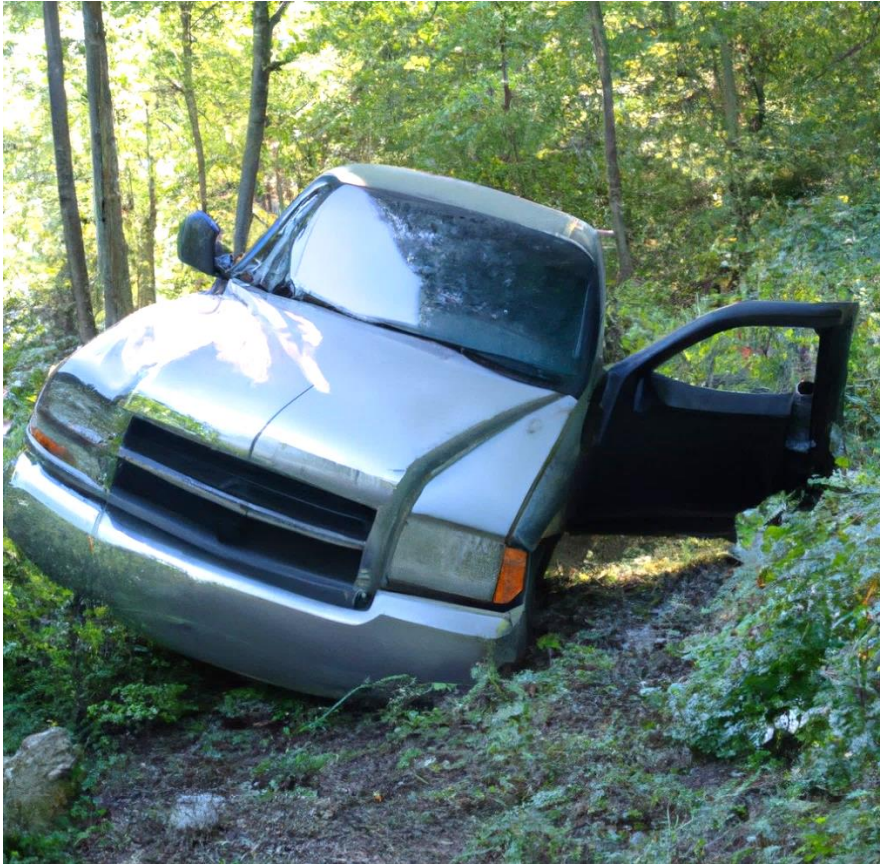
Source: Inspection of the incident site and interviews with driver and passengers

It was confirmed that the pickup went off the road at a sharp corner and stopped 80 metres down the slope. See attached photos.

The passengers in the truck confirm the driver's statement of the incident including the speed and braking of the vehicle just prior to the incident.

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Pickup Crash



Incident Investigation – Demonstration / Practice Scenarios

Investigation: Pickup Crash

PAPER - Safety Program and Meetings

The company has a good safety program with procedures and an orientation that cover driving on gravel roads. There was a pre-work meeting prior to this job and driving hazards including poor visibility were discussed. The driver was present at the meeting.

The safety program includes regular worker assessments which are done every 3 months. There is a checklist that helps the supervisor do the worker assessment. However, a check on the worker's driving is currently not part of the assessment.

The safety program does not include regular driver training.

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Pickup Crash

POSSIBLE CORRECTIVE ACTIONS

Participants will come up with their own list of corrective actions to prevent this incident from happening again.

It is up to the instructor to coach the participants on these corrective actions and make suggestions for improving them, if necessary.

Below is a list of example corrective actions that the instructor can use when coaching the participants. This list is not comprehensive and the participants will likely develop good recommendations that are not on this list.

Preliminary Corrective Actions	By Whom	By When (D/M/Y)	Date Completed	Verified by
Work with road maintainer to have consistent dust control on the road.	Fred Bloggs - Supervisor	August 23, 2023		
Change work schedule to avoid high traffic time periods which cause the poor visibility.	Fred Bloggs - Supervisor	August 23, 2023		
Share incident details with other crews. In particular, importance of driving to conditions and not over steering if you go off the road.	Fred Bloggs - Supervisor	August 23, 2023		
Additional Corrective Actions	By Whom	By When (D/M/Y)	Date Completed	Verified by
Start a regular driver training program for all drivers.	Jim Brown - H&S	September 15, 2023		
Incorporate regular driving assessments into the existing worker assessment checklist.	Jim Brown - H&S	October 1, 2023		
Update Driving Safe Work Procedure to include a section on driving during poor visibility	Jim Brown - H&S	September 1, 2023		

Incident Investigation – Demonstration / Practice Scenarios

Investigation: ATV Upset Incident

Incident Description

Show the short video of the incident when asked “What happened?”

Video in mp4 format and available online: <https://vimeo.com/901698061/4f58939aea?share=copy>

The video provides information on an ATV rollover incident that resulted in the supervisor being pinned under the ATV and injured.

After viewing the video, participants ask questions related to the 5 Ps to try to gather and organize all of the required information to map out the sequence of events.

At the end of the questions, the instructor coaches the group on information that was missed and questions that could have been asked to obtain it.

The instructor then ‘walks’ the group through using information gathered to complete an employer Incident Investigation Report (form 54E40).

Incident Investigation – Demonstration / Practice Scenarios

Investigation: ATV Upset Incident

Additional Incident Information to Provide:

There will be additional 5P information that participants won't be able to get from interviewing. After the interview, ask them if they would like any other information related to the incident. Provide the following if they ask the appropriate question.

PEOPLE – Interviews with key people involved

PROCESS – Work processes and upset conditions

PARTS – Mechanical information on ATV

POSITION – Worksite and weather information

PAPER – Relevant policies and procedures from Safety Management System manual

POSSIBLE CORRECTIVE ACTIONS

Incident Investigation – Demonstration / Practice Scenarios

Investigation: ATV Upset Incident

PEOPLE – Interviews with key people involved

Source: Transcripts of Interviews with Gabriel and the Shop Mechanic

Interview #1:

Project Manager: Can you describe how your day had gone and what was going on before the incident?

Gabriel: Well, it was a kind of crazy day. We were trying to get enough done where we were working so that I could start up the new blocks. Things had gone well and it looked like the crew would finish up in time to get a bit of an early start to the long weekend that we had decided to take off from work. I needed to get to the blocks to do a quick walk around and see if there were any hazards not on the map that I would need to communicate at the prework. I was busy but that was normal. I suppose I was a bit stressed and tired too, but who isn't in this job?

Project Manager: Tell me about the ATV you were using at the time.

Gabriel: It was pretty new, a Honda FourTrax, a couple of years old I think. Probably the best ATV we've got and the other crew had been using it, but they didn't need it for a few days. I've used it before and I liked riding it. I knew it was in the shop for an oil change so I went by Wednesday night to grab it.

Project Manager: What did the mechanics say about the condition of the ATV when you took it?

Gabriel: I didn't get a chance to ask. I came by pretty late and just loaded it up myself.

Project Manager: How do you usually transport ATVs if you need them in the field?

Gabriel: The crew would use the pickup with the flatbed where they could use the trailer. I didn't want to pull anything and didn't want to change trucks for the flatbed so I just loaded it into the back of my pickup with a set of ATV ramps that were in the shop. With a few little tweaks I got my truck set up so I can run the front tires up onto my dry box and then it fits perfectly against the headache rack and I can still close the tailgate. It's perfect.

Project Manager: What would be the concerns with loading and unloading that way?

Gabriel: It could be a bit intimidating for an inexperienced operator. You also want to make sure that your pickup bed isn't full of mud or oil. You want to make sure the ramp is secure and on flat level ground. Believe me, you don't want it falling off while you're on the ramp. Other than that, you just need to take it slow. It's probably easier to load it than to unload it.

Project Manager: Can you explain how you secure the ramps to the tailgate when getting ready to unload?

Gabriel: Sure, I was using a set of ramps that fold out in thirds, so the part where the ATV tires go is an even distance. They're quite stable. I usually throw a bungy from the ramp down to the bumper just to hold it in place.

Incident Investigation – Demonstration / Practice Scenarios

Investigation: ATV Upset Incident

Project Manager: Can you explain how the ATV came off the ramp despite the precautions you took?

Gabriel: I mean, it happened so fast, but I do remember there was a block of wood in the pickup bed that flipped up and I was worried that it would get jammed under the foot brake. I reached down with my right hand to grab it and throw it away while I was holding on to the brake lever on the left hand side. As I leaned down, the ATV suddenly rolled off the dry box and before I could do anything and it fell off the ramp and flopped over on top of me. I think I put out my arm to try to stop myself from hitting the ground but I knew instantly that I had done something bad to my arm. Then I also realized that my right ankle and knee had twisted when the ATV pinned me down. Between my leg and my wrist, I could not get any strength or leverage to get the ATV off me. That thing has to weigh 500 lbs. They told me that it was a freak accident. The ATV just landed on me and my left leg was totally pinned. I guess my rubber caulk boot didn't help and I couldn't wiggle out. Believe me, I tried but the pain was pretty intense and I couldn't use my right arm for anything. After a while I realized I was going to need help and I tried my handheld radio but I guess I was too far to reach the crew. I hope that the crew wouldn't leave without me and someone would come find me. I was there for a couple of hours before I heard the pickup drive up and suddenly they were lifting the ATV off me and asking how I was. I think I said I was mostly embarrassed, but the truth was I was in a lot of pain and laying on the ground for a few hours had not done me any good. I'm just glad it wasn't raining or snowing. I was also glad our first aider Evie, was there and pretty quickly I was assessed, splinted up,- both my right arm and my right leg and strapped to the spine board for transport. I kept saying that I didn't need to be on the spine board, but Evie insisted. It's all a blur after that.

Project Manager: I just wanted to follow up on what you said about the ATV rolling while you were holding the brake. What do you think happened there?

Gabriel: I don't really know, but obviously it didn't hold. Either the brake wasn't working or I lost my hold on the lever.

Project Manager: I guess either way there wasn't enough braking to keep it from rolling down off the dry box. What do you think happened for it to go off the ramp when it did roll?

Gabriel: I think the ATV had bounced a little to the left during the drive and I guess I didn't move the ramps over enough to compensate. I mean, if I didn't reach down for that block of wood, I would have noticed and been able to steer it straight. I've done this lots of times. The ground is never perfectly level and you just have to deal with it.

Project Manager: When was the last time you had a competency assessment for operating an ATV? Including loading or unloading.

Gabriel: Well, I assess myself every time I've written one over the last eight years. I don't think anyone else has ever assessed me. As a supervisor I was kind of grandfathered in, I guess.

Project Manager: Are you able to describe the company SOP for loading and unloading ATVs? I'm just curious if this loading scenario is addressed.

Incident Investigation – Demonstration / Practice Scenarios

Investigation: ATV Upset Incident

Gabriel: I'd have to say I have no recollection of reading anything like that. Should I? I've done this 100 times before, so I don't think I would need to consult an SOP for my 101st time, do you?

Project Manager: That's probably a question for another time. I do think we will ask our safety committee to look at our ATV practices and see if we are doing enough around loading and unloading safety. When we get to that point, would you be willing to share your experience and suggestions? I think it would be helpful. Maybe not everyone on the committee has done the task before.

Gabriel: Sure, I can help out with that. I guess you'll have to zoom me in for the meeting or else send someone to drive me as I won't be driving myself for a bit.

Interview #2:

Project Manager: I guess that Gabriel came and grabbed the ATV from the shop after you had gone for the day last Wednesday. Had you inspected the ATV or done any service work while you had it?

Shop Manager: The other crew had brought it in Tuesday night and said it needed to be gone over and serviced. The other supervisor had been using it a lot and he thought the brakes needed adjusting as the parking brake didn't always hold if the ATV was on a slope. I was going to give it an oil change and check everything out, but I got busy and decided to leave it until after the long weekend. I was surprised when I came in Thursday morning and it was gone.

Project Manager: Was there anything on the ATV to indicate it was being serviced, like a tag or some ribbon?

Shop Manager: No, anybody should know if it's in the shop, it's there for a reason, but when the crews need something, they come and take it. I'll usually get a text telling me after the fact. Gabriel texted me Friday morning to let me know he had the ATV, and he'd be dropping it back Friday night. I texted him back a bit later saying that the brakes might need adjusting, but I guess he was out of service and didn't get my text.

Project Manager: Did you get a chance to go over the ATV now that it's back in the shop?

Shop Manager: No, but I'll do that first thing Monday morning and I'll let you know what I find.

Incident Investigation – Demonstration / Practice Scenarios

Investigation: ATV Upset Incident

PROCESS - Work processes and upset conditions

Source: Interviews with Supervisor

- Supervisor busy with multiple responsibilities, including new worker training
- Holiday weekend distractions for crew and supervisor
- Finishing up part of project; planning to move some crew members after weekend
- “Short-cut” road and use of ATV to save time to access new block

Incident Investigation – Demonstration / Practice Scenarios

Investigation: ATV Upset Incident

PARTS – Mechanical information on ATV

- Post-incident inspection report on ATV completed by mechanic
- Brakes not holding or not properly adjusted as reported by other crew.
- Condition of ramps? Good condition.
- Evidence of securement straps for ATV ramps? None were found secured to the ramps when inspected at the shop after the incident. A couple of loose rubber bungy cords were found in the bed of Morgan's truck.
- Actual ATV weight is 722 lbs., not 500 as Morgan thought.

Incident Investigation – Demonstration / Practice Scenarios

Investigation: ATV Upset Incident

Forest Tree Contracting Monthly Quad Inspection

Equipment Type: Quad License Plate #: 0F4824	Make: Honda Serial #:	Model: FourTrax Foreman Rubicon Starting Hours: 720
Code: A = Acceptable Condition, F = Failed Inspection, N/A = Not Applicable (must give reason)		
Inspection Item	Code	Comments
Engine and Fuel:		
Oil level and filter service	F	Changed oil and filter
Air Filter Clean	A	
Drive Belt tight and good condition	A	
Radiator, hoses, and coolant levels	A	
Spark Arrestor *	A	
Throttle operational *	A	
Choke operational	N/A	Automatic
Fuel line hoses and connections *	A	
Brakes:		
Brake levers operational *	A	
Brake fluid level adequate *	A	
Brake pads, hoses, and connections *	F	Left brake lever loose – brake not holding, needed adjustment
Chassis:		
Lubrication	A	
Front and Rear gear case levels	A	
Steering acceptable *	A	
Boot Joints, Axles and Suspension acceptable *	F	Right front boot torn; inspected, cleaned & replaced with new boot
Tire wear and inflated properly *	A	
Wheel lugs tight *	A	
All lights and reflectors acceptable condition *	A	
Winch and cable acceptable	A	
Physical Damage (Describe & identify on picture of unit)	A	
License Plate, registration and decals (if required)	A	

Mechanical Inspector: **Jody Winters**

Date: **July 4, 2022**

Incident Investigation – Demonstration / Practice Scenarios

Investigation: ATV Upset Incident

POSITION - Worksite and weather information

Source: Inspection of the incident site and interviews with driver and passengers

- There were no pictures taken of the upset ATV. Once the crew had taken it off of Morgan, it was set upright and moved out of the way. One of the crew would later load it into the back of a different pickup without a dry box and take it back to the shop for inspection.
- The pictures of the ATV and pickup were taken by Morgan on different occasions and are included to illustrate the ATV loading and transport setup.
- Weather report for the week of the incident.

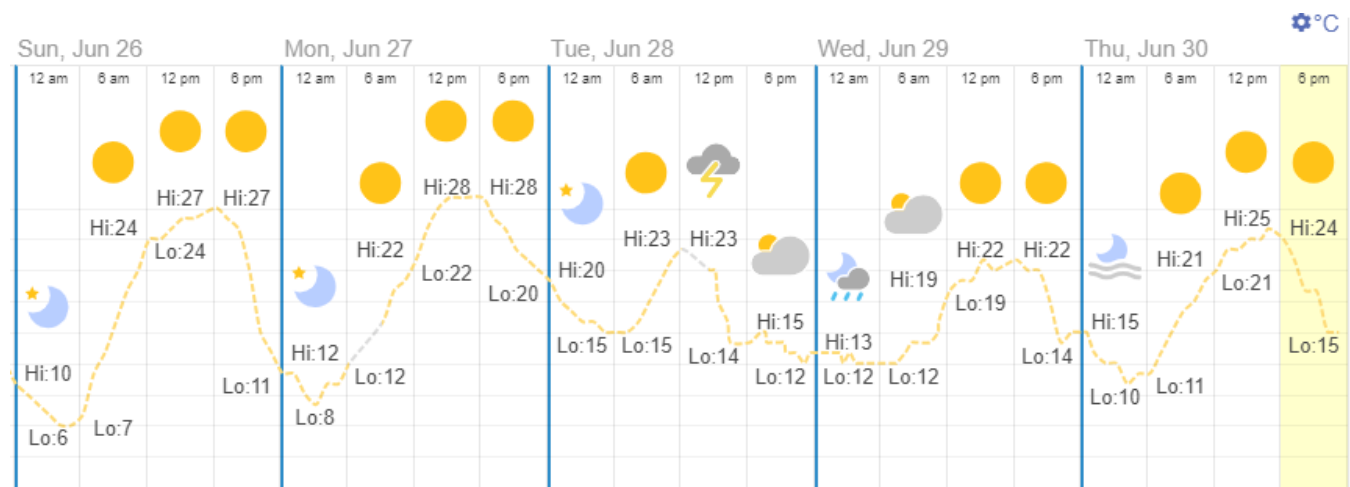
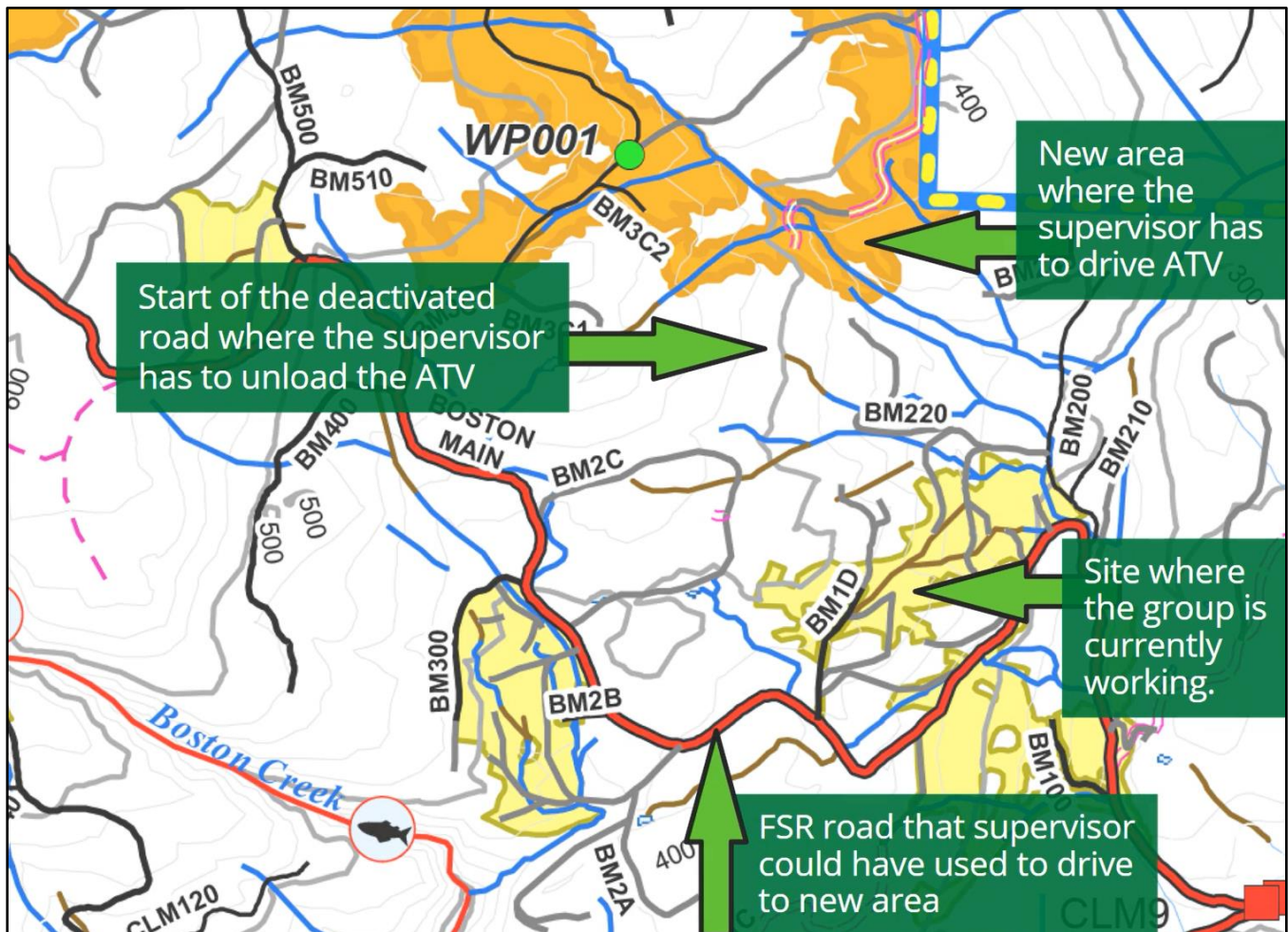


Photo of how ATV was loaded:



Incident Investigation – Demonstration / Practice Scenarios

Investigation: ATV Upset Incident



Incident Investigation – Demonstration / Practice Scenarios

Investigation: ATV Upset Incident

PAPER - Safety Program and Meetings

Forest Tree Contracting ATV Pre-Use Inspection Checklist

Complete this checklist prior to operating an ATV.

ATV Make and Model _____ Hrs on Hour Meter: _____

Inspection(s) completed by: _____ Week starting: _____

Item	Sun	Mon	Tues	Weds	Thurs	Fri	Sat
Tire air pressure							
Tire condition							
Throttle cable							
Brake cable or control							
Head lights							
Oil level and condition							
Fuel level							
Fluid leaks							
Air filter							
Exhaust pipe*							
Manifold*							
Wheel wells							
Fire extinguisher &/or shovel							
Helmet/goggles/gloves/vest							
Other							

*Note: Clear all debris from the manifold and exhaust pipe to prevent fire.

Initial each section to indicate that the equipment was in good condition. Record any issues (e.g. damage, excessive wear, debris, etc.) in the “Comment and Correction Action” section below. Add additional sheets as needed. Maintain records of inspection for a minimum of two years.

Comments for shop/mechanic:

Incident Investigation – Demonstration / Practice Scenarios

Investigation: ATV Upset Incident

FOREST TREE CONTRACTING ATV OPERATOR COMPETENCY ASSESSMENT

OPERATOR NAME: _____

DATE: _____

SKILLS	POINTS	YES/ NO	POINTS RECEIVED	COMMENTS
Conducts Pre-use Inspection (Checks Fuel/Fluids; Tire Pressure; Clean around Exhaust; Winch/Cable; Required Safety Equipment; & Control Operation)	2			
Uses and secures ramps to load and unload ATV, does not accelerate rapidly – controlled speed. ATV adequately secured for transport.	2			
Wears required PPE (long pants and supportive footwear. Helmet & chinstrap required with protective glasses worn. Handheld radio secured.)	2			
Demonstrates appropriate speed for terrain & conditions	2			
Assesses terrain before driving – removes hazards or avoids them	2			
Demonstrates “active” riding posture	2			
Shifts body weight and appropriate speed when turning and on uneven terrain - controlled	1			
Drives up and down slopes, not across where a roll over hazard exists.	1			
Demonstrates “K” turn when climbing steep hill	2			
Loads are secured and balanced – does not overload and balances front to back weight limits	2			
Describes safe fueling procedure.	1			
Demonstrates proper winch usage.	1			
TOTAL	20			

COMMENTS:

OPERATOR SIGNATURE: _____ TRAINER SIGNATURE: _____

80% or higher 12/15	Driver has demonstrated competency	PASS	Periodic evaluations to follow
70%-80% 11/15	Driver must not drive for <u>one week</u>	Re-evaluated after more training	Evaluations every week for 2 weeks and then re-tested
60%-70% 9/15	Driver must not drive for <u>one month</u>	Re-evaluated after more training	Evaluations daily for two weeks and then re-tested
Less than 60%	Driver must not drive	N/A	N/A

Incident Investigation – Demonstration / Practice Scenarios

Investigation: ATV Upset Incident

FOREST TREE CONTRACTING WORKING ALONE PROCEDURE

- ◆ For workers that may work alone or be out of regular contact with other workers on the worksite (e.g. project managers, supervisors, crew leaders, stock handlers or checkers), a radio check-in procedure should be used. The worker will make regular hourly calls to the site supervisor or another designated worker by radio or cell phone.
- ◆ If hourly check-in attempt is not successful, attempts should be made every 15 minutes to establish contact with worker who hasn't checked in.
- ◆ If contact has not been initiated after an additional 1 hour from missed check-in, a search must be initiated.
- ◆ If a manager intends to go to a worksite outside of regular work hours, they must designate a check-in time with a responsible person and provide them with a map that shows their travel route and their destination. If they are more than one hour late then a search must be initiated with at least two people (who must also designate a check-in time & procedure with someone else who is available to assist if needed).

FOREST TREE CONTRACTING ATV OPERATION GUIDELINES

- ◆ Do a pre-use inspection daily.
- ◆ Helmets with **chinstraps fastened** will be worn at all times by ATV operator.
- ◆ There will be no passengers on ATVs at any time.
- ◆ Only trained and authorized workers will use ATVs.
- ◆ Load ATVs into trucks with secured ATV ramps or by backing truck up to a bank; if lifting ATV into truck, lift only with the legs, not the back.
- ◆ ATVs should be secured in trucks or on trailers with adequate straps.
- ◆ ATVs must not be driven with excessive speed.
- ◆ Exercise caution when driving ATV on side slopes. On steep slopes the operator should ride with downhill knee on seat and uphill foot on peg so as to keep weight on uphill side of ATV to reduce potential for rollover. Speed should be reduced to walking speed. Loads should be checked for being secured against shifting before starting across side slope.
- ◆ Keep body parts away from hot and/or moving ATV parts.
- ◆ When loading ATVs kneel with left knee on seat and right foot on peg; this stance is to allow loader to jump off quickly in case this becomes necessary.
- ◆ Cargo must be securely fastened to avoid shifting during transport.
- ◆ If ATVs are being used in extremely muddy conditions, they must have their radiators (or oil coolers) cleaned regularly. If the cooling function of the radiator is being impeded, then it needs to be cleaned.

Incident Investigation – Demonstration / Practice Scenarios

Investigation: ATV Upset Incident

POSSIBLE CORRECTIVE ACTIONS

Participants will come up with their own list of corrective actions to prevent this incident from happening again.

It is up to the instructor to coach the participants on these corrective actions and make suggestions for improving them, if necessary.

Below is a list of example corrective actions that the instructor can use when coaching the participants. This list is not comprehensive and the participants will likely develop good recommendations that are not on this list.

Preliminary Corrective Actions	By Whom	By When (D/M/Y)	Date Completed	Verified by
ATV taken out of service with a tag and key removed until brakes are repaired.	Tim T.– Shop Manager	July 7, 2022		
Inspect all pickups to make sure an ATV can be positioned safely in the bed (no ramps onto dry box and no debris) and equipment is available to secure ramps (chains, ratchet straps)	Tim T.– Shop Manager	July 7, 2022		
Additional Corrective Actions	By Whom	By When (D/M/Y)	Date Completed	Verified by
Develop an ATV loading and unloading SWP.	Sue S. – Program Manager	July 14, 2022		
Health and Safety Committee to test satellite check-in devices that can be used where there is poor radio reception.	Jim Brown - H&S Coordinator	July 28, 2022		
Work with supervisors to train all staff on ATV and working alone procedures. Include missing worker scenario in emergency drills.	Sue S. – Program Manager	August 18, 2022		
Update working alone procedure to include the frequency of completing radio checks and what to do when there is not adequate radio coverage.	Sue S. – Program Manager	July 14, 2022		
Create a formal procedure for putting equipment out of service including visual signs to indicate that equipment should not be used.	Tim T.– Shop Manager	July 14, 2022		

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Wind Event Incident

Incident Description

Show the short video of the incident when asked “What happened?”

Video in mp4 format and available online: <https://vimeo.com/901625793/7f3bafff23?share=copy>

The video provides information on an incident that involves a forestry crew that experienced a high wind blow down incident that resulted in a temporary shut down and a falling tree nearly missing some workers.

After viewing the video, participants ask questions related to the 5 Ps to try to gather and organize all of the required information to map out the sequence of events.

At the end of the questions, the instructor coaches the group on information that was missed and questions that could have been asked to obtain it.

The instructor then ‘walks’ the group through using information gathered to complete an employer Incident Investigation Report (form 54E40).

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Wind Event Incident

Additional Incident Information to Provide:

There will be additional 5P information that participants won't be able to get from interviewing. After the interview, ask them if they would like any other information related to the incident. Provide the following if they ask the appropriate question.

PEOPLE – Experience and training of employees involved

PROCESS – Work processes and upset conditions

PARTS – Not applicable

POSITION – Worksite and weather information

PAPER – Relevant policies and procedures from Safety Management System manual

POSSIBLE CORRECTIVE ACTIONS

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Wind Event Incident

PEOPLE - Experience and Training of Employees Involved

Source: Training and employment records

- There were no formal interviews conducted. The first aid attendant wrote the incident description based on discussions with crew members and the supervisor during & after the event.
- The supervisor, Morgan, is new to their role (6 months experience) but has worked for the company for 8 years.
- Lee L, who is responsible for quality assurance and is the first aid attendant on site, has worked for the company for 6 years.

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Wind Event Incident

PROCESS - Work processes and upset conditions

Source: Interviews with Supervisor

- Regular ongoing work activities; close to finishing off active block
- Crew somewhat behind schedule; pressure from management to make more progress
- Short week due to upcoming July long weekend
- Adverse conditions with hot weather for a few days and sudden wind event

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Wind Event Incident

PARTS - Not applicable

- There was no damage to equipment or vehicles, although there was potential to be struck by falling trees.

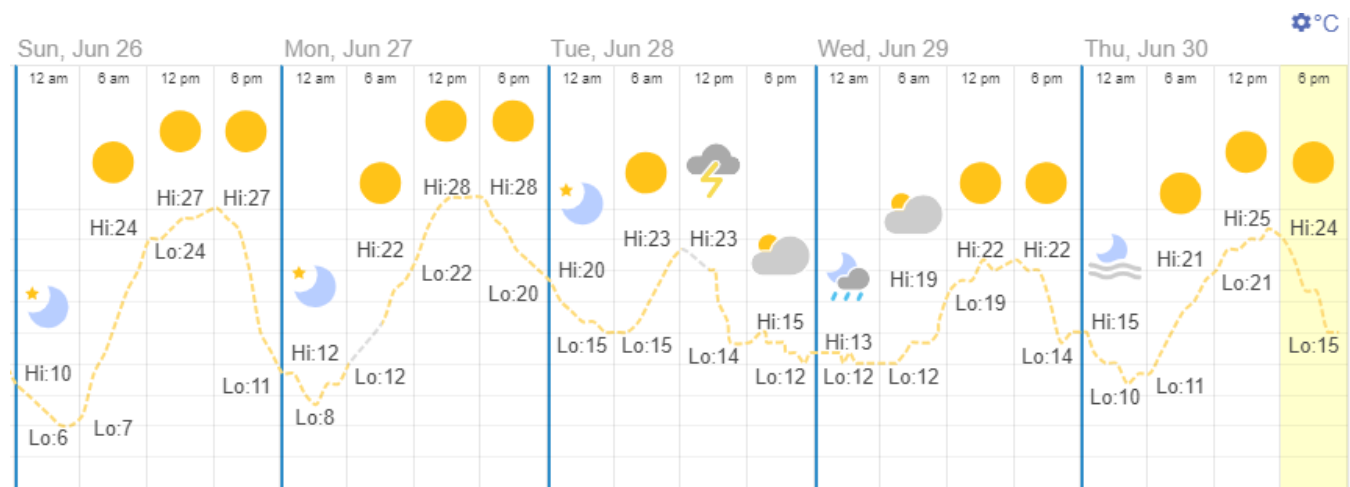
Incident Investigation – Demonstration / Practice Scenarios

Investigation: Wind Event Incident

POSITION - Worksite and weather information

Source: Inspection of the incident site and interviews with driver and passengers

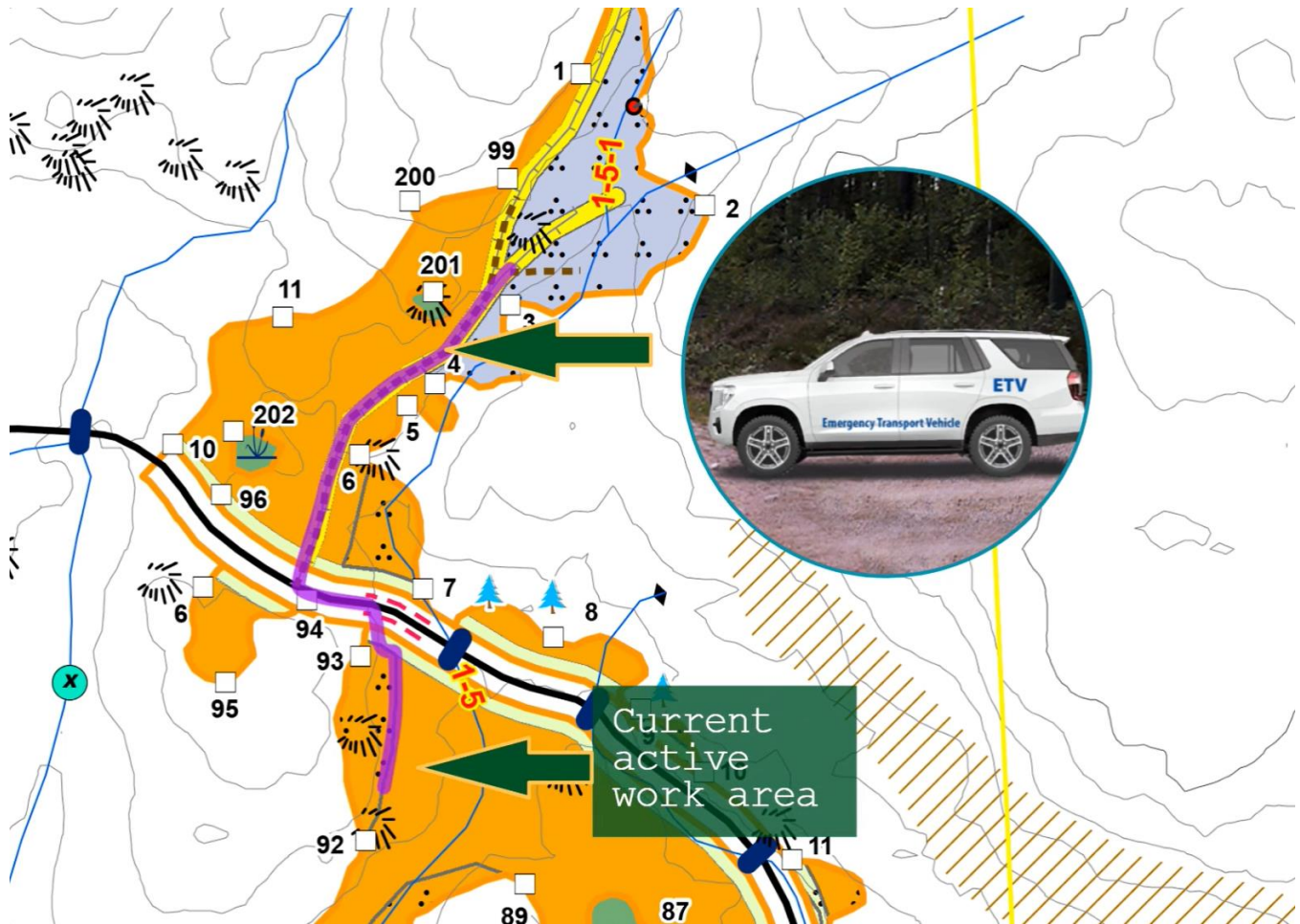
- The area the crew was working in had been impacted by previous disturbances (some bug kill and an old fire) and the tree that had fallen part way across the spur road where the ETV was parked had been dead for some time and the roots were rotted. The block perimeter had been assessed for danger trees but the spur road where the ETV was parked was outside of the block so it had not been assessed.
- Healthy deciduous trees in a wet riparian zone blew over in the wind event – no workers or vehicles/machines were in the area. Trees were not identified as dangerous.
- Weather



Incident Investigation – Demonstration / Practice Scenarios

Investigation: Wind Event Incident

Map of the Worksite:



Incident Investigation – Demonstration / Practice Scenarios

Investigation: Wind Event Incident

PAPER - Safety Program and Meetings

Incident & Close Call Reporting Policy

Any incidents (unplanned events causing injury or loss) or close calls (events that are near miss or “almost” incidents) need to be recorded on the incident reporting form. The purpose of this form is not to attach blame for a given incident to any one individual, but rather to provide a preventative corrective tracking mechanism to avoid future occurrences of a given incident.

Wildlife or Danger Tree SOP (section from Hazard ID & Control section in manual)

- For the precise definition of a danger tree, see page 84.
- Any tree that looks like it might fall over must be considered a danger tree.
- Workers must never park or service vehicles or equipment where a danger tree may fall on it.
- Workers on foot must always maintain at least 1.5 tree-lengths from a wildlife or danger tree.
- In winds over 20 km/h, workers must stay 1.5 tree-lengths from all residual standing trees.
- Supervisor will monitor conditions and maintain communication with the crew.
- In winds over 40 kmph, the crew will shut down operations and evacuate to a safe area.
- Supervisors will enter the daily wind speed into the block hazard assessment.
- The following Beaufort Scale table can be used to estimate wind speed in the field

Wind Speed (km/h)	Rating of Disturbance	Beaufort Wind Scale Description	Required Actions
<20	1-3 (Low)	Dust and loose paper raised; small branches move	Monitor Situation for Change
20-39	4-5 (Medium)	Strong breeze; larger branches in motion; small trees sway	Identify potentially dangerous trees & Maintain 1.5 tree lengths distance
40-61	6-7 (High)	Needles and small twigs/branches fly, whole trees in motion	Consider shutting down operations; evacuate to safe location until conditions improve.
>61	7-9 (Extreme)	Branches break off trees; large trees in motion; walking against the wind difficult; vehicles can veer on roads	Immediate Emergency Evacuation or Shelter in Vehicle/Equipment

Adverse Weather Guidelines (section from overall ERP)

- High winds can cause trees to be blown down. Use care when working around residual trees and block boundaries during wind events.
- Evacuate the block using evacuation procedures outlined in the emergency response section of this manual in the event of a windstorm or electrical storm.

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Wind Event Incident

Danger Tree Awareness Guidelines (section from Hazard ID & Control in manual)

Supervisor involved in danger tree identification must be trained to:

- Understand and apply applicable regulations;
- Recognize common features of danger trees;
- Understand what conditions may lead to trees becoming dangerous;
- Understand what to do when conditions change; and
- Understand what to do when you identify danger trees in or around active work sites.

Danger Tree Criteria

A danger tree is any tree that is hazardous to people, equipment, or facilities because of:

- Location and lean
- physical damage
- overhead hazards
- deterioration of limbs, stem or root system
- a combination of the above.

Note: If work will expose a worker to a dangerous tree, the tree must be removed. This only applies if trees are dangerous AND workers are exposed to that danger.

Cut Block Emergency Evacuation Plan (section from overall ERP)

To initiate an emergency evacuation plan, call workers by radio or use other signal appropriate to the activities (e.g. whistle, vehicle horn, or air horn).

Once all workers have responded or gathered at the muster point, the supervisor will decide on an appropriate response to the emergency.

- If the decision is to evacuate the block, then a roll call must be completed prior to any departure from the block. After a roll call, the supervisor must decide on the appropriate evacuation method.
- The project manager must be notified of the evacuation ASAP. If outside assistance is required, contact should be made with emergency services; phone numbers are found in the emergency contacts in the ERP in every vehicle or machine.
- The supervisor will constantly monitor current weather conditions and its effect or potential effect on the workers. Blocks may need to be evacuated for a variety of weather conditions such as extreme heat, extreme cold, wind, hail, or electrical storms. The most common weather conditions that require a special plan or procedure are electrical and windstorms.

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Wind Event Incident

POSSIBLE CORRECTIVE ACTIONS

Participants will come up with their own list of corrective actions to prevent this incident from happening again.

It is up to the instructor to coach the participants on these corrective actions and make suggestions for improving them, if necessary.

Below is a list of example corrective actions that the instructor can use when coaching the participants. This list is not comprehensive and the participants will likely develop good recommendations that are not on this list.

Preliminary Corrective Actions	By Whom	By When (D/M/Y)	Date Completed	Verified by
Move ETV to main road where there is no risk of blowdown.	Morgan M. - Supervisor	June 29, 2022		
Assess and remove dangerous trees from current worksite.	Morgan M. - Supervisor	July 1, 2022		
Additional Corrective Actions	By Whom	By When (D/M/Y)	Date Completed	Verified by
Review new Supervisor Training Program for appropriate Danger Tree Awareness/Assessment training and Leadership/Communication training.	Jim Brown - H&S Coordinator	July 15, 2023		
Review Right to Refuse Unsafe Work policy with Supervisors and Workers	Jim Brown - H&S	July 5, 2022		
Clarify process for where ETV is parked in the work area – who decides; how are hazards identified and controlled; is it at the designated muster area?	Jim Brown - H&S Coordinator	July 15, 2022		

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Logging Truck Loading Incident

Incident Description

The instructor acts the part of several witnesses who are involved in or have knowledge / information about the incident. Show the short video of the witnesses initial statements when asked “What happened?”

Short version (5m-41s) in mp4 format Full version (7m-46s) : <https://youtu.be/EULfb0wHnQw>

This video contains language that may be offensive to some viewers. Viewer discretion is advised. This video portrays a fictional workplace. It does not represent the forest industry in general or the individuals or companies involved in the production.

Failure to properly supervise work, bad planning, errors of judgment, poor communication, and pressure to clear landings quickly—any of these unsafe practices can result in workers being injured or killed. Employers, supervisors, equipment operators, and truck drivers—everyone is responsible for ensuring that forestry workers get home safely.

This video shows what can happen if safe work procedures are not followed when loading logs in a landing area. There are a number of breakdowns in equipment, procedures, and protocols that make this worksite unsafe: driver not wearing a seatbelt, swearing over a radio, broken horn, and exiting the cab without clearance. These unsafe practices represent learning opportunities of a post-viewing discussion.

Notes

- Logging Truck Operator was distracted (talking on cell phone) and feeling under time pressure from home situation and from his supervisor.
- Loader Operator employee (Gregg) and Supervisor had a verbal exchange about the need to step up truck loading to clear the landing of logs that were backing up (“landing jammed”).
- Employee expressed a number of concerns about the operation – no planning, no room on the landing, no time, no direction, don’t know where people are most of the time.
- Logging Truck Driver (Kevin) backed in for the next load.
- Loader Operator radioed that his horn was not working so communication would have to be by radio –Truck Driver acknowledged.
- The trailer was off-loaded and connected, and loading began.
- As loading progressed, the Loader Operator radioed that “a couple more to put on and then [the load would] be ready to go”. Driver acknowledged.
- The last log to be loaded slipped out of the grapple hooks and fell off the trailer to the passenger side of the bunk.
- The Loader Operator checked the load on the bunk and decided to knock another one of the logs from the top of the bunk.
- He then radioed the Truck Driver that the load was ready to go, but got no reply from the Driver who had exited the cab of his truck without radio clearance or visual acknowledgement from the Loader Operator. He left his cab to investigate.

After viewing the video, participants ask questions related to the 5 Ps to try to gather and organize all of the required information to map out the sequence of events. At the end of the questions, the instructor coaches the group on information that was missed and questions that could have been asked to obtain it. The instructor then ‘walks’ the group through using information gathered to complete an employer Incident Investigation Report (form 54E40).

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Logging Truck Loading Incident

Additional Incident Information to Provide to Participants if Requested:

There will be additional 5P information that participants won't be able to get from the "interviewing information" that they gather from the video. After viewing the "interview video", ask them if they would like any other information related to the incident. Provide the following if they ask the appropriate question.

People (3 scripts) – Experience and training of the loader operator and the logging truck driver. Additional interview information collected from loader operator, yarder operator, and supervisor.

Process (1 script) – Safe Work Procedure for log loading.

Parts (1 script) – Landing conditions.

Position (1 script) – Position of the logging truck driver.

Paper (1 script) – Safety program and meetings.

Possible Corrective Actions -

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Logging Truck Loading Incident

People 1 of 3 - Background interviews with Crew

Source: Training and employment records, interviews.

Loader Operator (Gregg)

- Phase congestion presented challenges to meet production targets working on the small landing.
- Was frustrated with being pressured by supervisor to step up production.
- Didn't feel crew was getting sufficient direction for the operation.
- Felt that the Logging Truck Driver was very experienced ("he's done it for years"), knew what to do and what was required to get the job done.
- Believed that the Logging Truck Driver knew that log loading was not finished when he knocked off the last log.
- According to the Yarder Operator, Gregg was relatively inexperienced, and that his inexperience was 'backing up the operation'.

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Logging Truck Loading Incident

People 2 of 3 - Background interviews with Crew

Source: Training and employment records, interviews.

Yarder Operator

- Felt that the operation was being rushed and working under phase congestion conditions.
- Yarding operations were running out of room to land loads, and “might have to move and come back for last few roads, or shut down”.
- Thought the Loader Operator was inexperienced, and that he was slowing down production.
- Thought that the Logging Truck Driver was pushing his limits – “squeezing in 5 loads a day when there was time for 4 loads a day”.
- Acknowledged that the Logging Truck Driver was experienced with 15 years behind him.

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Logging Truck Loading Incident

People 3 of 3 - Background interviews with Crew

Source: Training and employment records, interviews.

Supervisor

- Given tight financial conditions with the bid and job costs, was feeling pressured to get production out.
- Did not intend to shut down operations, but rather to push to “up production and get the loads down and out”.
- Acknowledged that the job involved long hard hours and that “sometimes things will go sideways”, as they did in this incident.
- Stated that he hires his crews to do the job and that they know the dangers involved.

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Logging Truck Loading Incident

Process 1 of 1 – Safe Work Procedures

Source: Company Safety Program.

The company does have Safe Work Procedures for operations on landings during log loading. They are reviewed annually by the staff and the records show that the loader operator and logging truck driver had reviewed the procedures recently that year.

Safe Work Procedures – Operations on Landings during Log Loading – General

PROCEDURES AND PRACTICES: *Remember it is your job to load a safe load onto the truck and not to endanger the driver while you are loading his truck. In turn the driver must behave in such a manner that he does not place himself in harm's way.*

PERSONAL PROTECTIVE EQUIPMENT: Hearing protection while operating machine
Hi-Vis clothing when outside machine
Substantial appropriate footwear at all times

- Communicate either by audio signals (radio and horn), or by visuals (hand signals, eye contact).
- All landing workers, including truck drivers, must be in view, in the clear or their whereabouts known before logs or equipment are moved.
- Logs must be decked in a manner to facilitate safe loading.
- Keep all butts or ends even.
- Turn logs that should be loaded butt ahead.
- Position log decks to eliminate extra maneuvering when loading.
- Have all logs bucked, limbed and stamped when required.
- The truck must always be positioned properly for before hooking up the trailer.
- Always use proper signals when directing truck movements.
- A distinctive signal to indicate that the load is finished should be used. Ensure all workers are in the clear.
- If the deck is beside the truck, logs shall not be picked up from it until the driver and/or other workers have finished their duties and have moved to the safe zone.
- Loading shall cease at any time that the loader operator is uncertain that the driver is in the cab or is in the clear in front of the truck.
- Operators shall ensure that all workers are safely in the clear before initiating or continuing the motion of any mobile equipment.
- Although operators are responsible, it is also the responsibility of buckers and other workers to stay clear of any area considered to be hazardous due to the movement of such equipment.
- There must be a specific procedure for all equipment and vehicle operators, to allow safe movement through active log landings. Truck drivers must wear a hi-vis orange or red hard hat and a hi-vis clothing at all times when within the boundaries of the logging area.

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Logging Truck Loading Incident

Parts 1 of 1 – Landing Conditions

Source: Harvest Plan and Site Map, additional interviews with loader operator, yarder operator, and supervisor.

- The small landing was constrained by a number of natural features – landing site engineering had to accommodate cliffs, embankments, and rock outcrops.
- Given phase congestion on the site, production schedules were getting backed up between yarding – processing – loading and hauling operations.

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Logging Truck Loading Incident

Position 1 of 1 – Position of the Logging Truck Driver.

Source: Inspection of the incident site and interviews with loader operator and logging truck driver.

- The loader operator assumed that the logging truck driver would remain in his truck cab until the loader operator gave final clearance over the radio and established visual contact with the driver while he was out of his cab.
- The logging truck driver admitted that he was distracted with time pressure from home and his supervisor, and assumed that loading was complete when he left his cab with his PPE.
- He acknowledged that he did not establish visual contact with the loader operator upon exiting his truck cab. Instead he walked around the front of his truck to the passenger side to begin securing the load for departure when the final log was knocked off the trailer bunk and just missed him when it fell to the ground.
- The Loader Operator left his cab to investigate when he didn't get a response from the Logging Truck Driver. He found him on the passenger side of the truck unharmed but in a state of shock after narrowly being missed by the falling log.

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Logging Truck Loading Incident

Paper 1 of 1 - Safety Program and Meetings

- The company has a safety program with documented safe work procedures and an orientation that cover log loading on landings.
- There was a pre-work meeting prior to this incident and no particular safety concerns with the job were discussed. The loader operator and logging truck driver were both present at the meeting.
- The safety program includes an annual review with employees and contractors. The loader operator and logging truck driver both completed their review 9 months earlier.

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Logging Truck Loading Incident

Possible Corrective Actions:

Participants will come up with their own list of corrective actions to prevent this incident from happening again. Coach the participants on causes and corrective actions, and make suggestions for improving them, if necessary. This list is not comprehensive and participants will likely develop good recommendations that are not on this list.

Ref #9. Immediate Causes (Worker Behaviour and/or Workplace Conditions)				
Lack of communication between Loader Operator and Logging Truck Driver				
Defective Loader horn.				
Worker distractions and production pressures.				
Congested landing.				
Ref #12: Immediate Corrective Actions	By Whom	By When (D/M/Y)	Date Done (D/M/Y)	Verified by
Review importance of communications at all times at daily safety meeting. In particular, importance of auditory and visual contact in / between operations.	Fred Bloggs - Supervisor	Aug 28, 2017		
Repair the Loader horn.	Bill Brown - Maintenance	Aug 28, 2017		
Share incident details with all crews. Check-in daily with crew members about status, and production – safety concerns/priorities.	Fred Bloggs - Supervisor	Aug 28, 2017		
Review current landing layout and re-adjust as possible to reduce current congestion.	Fred Bloggs – Supervisor, Fred Green – Layout Engr	Sep 10, 2017		
Ref # 15: Causes of Incident				
Phase congestion and site layout conflicts between operations.				
Defective equipment not reported, not repaired.				
Worker distractions and failing to follow established safe work procedures.				
Ref # 17: System Corrective Actions	By Whom	By When (D/M/Y)	Date Done (D/M/Y)	Verified by
Re-examine site and landing design and layout criteria for future planning and engineering.	Jim Brown – H&S Coordr, Fred Green – Layout Engr	Sept 15, 2017		
Enforce pre-start equipment checks/inspection, and require that repairs are made before work starts.	Jim Brown – H&S Coordr, Fred Bloggs - Supervisor	Oct 1, 2017		
Develop and institute a behavior based safety program.	Jim Brown – H&S Coordr, Fred Bloggs - Supervisor, Consultant	Jan 30, 2018		

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Faller Injured Incident

Incident Description

The instructor acts the part of several witnesses who are involved in or have knowledge / information about the incident. Show the short video of the witnesses initial statements when asked “What happened?”

Short version (5m-41s) in mp4 format

Full version (7m-46s) : <https://youtu.be/EULfb0wHnQw>

A lack of planning and adequate supervision, and failure to recognize, evaluate, and control hazards - any or all of these can contribute to faller fatalities and serious injuries. This video shows what can happen in such situations, and how everyone is responsible for faller safety.

Notes

- Layout Engineer explained his role to ribbon off the block based on topo map and cutting plan.
- Owner/Supervisor (Bjorn) and Layout Engineer met with Block Designer to review maps of 2 cut blocks at site.
- Block Designer noted challenges in 1 block with added difficulties for falling in a riparian zone at the bottom of one finger of the cut.
- Owner/Supervisor did not want to walk the blocks with Layout Engineer and Block Designer to do a reconnaissance walk-around – “looks straight forward”.
- Owner/Supervisor telephoned Faller (AI) about the job opportunity, which he accepted.
- Owner/Supervisor and Faller met at the site to begin work and briefly reviewed the site maps.
- Faller wanted to do a reconnaissance walk-around but Owner/Supervisor indicated that he was too busy for walk-around and went back to work in another area of the site and that he would meet with the Faller later in the afternoon.
- Faller went to the bottom finger and called the Owner/Supervisor on the radio to say that the block presented problems with the “riparian zone with trees leaning into it with nowhere to fall trees”.
- Owner/Supervisor indicated to the Faller to “do the best that he could” and stated that he was under pressure to maximize cut on the block and that he “couldn’t go back on the bid”.
- The faller was struck by a limb that broke loose as a tree was felled.

After viewing the video, participants ask questions related to the 5 Ps to try to gather and organize all of the required information to map out the sequence of events. At the end of the questions, the instructor coaches the group on information that was missed and questions that could have been asked to obtain it. The instructor then ‘walks’ the group through using information gathered to complete an Employer Incident Investigation Report (form 54E40).

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Faller Injured Incident

Additional Incident Information to Provide to Participants if Requested:

There will be additional 5P information that participants won't be able to get from the "interviewing information" that they gather from the video. After viewing the "interview video", ask them if they would like any other information related to the incident. Provide the following if they ask the appropriate question.

People (3 scripts) – Experience and training of the faller. Additional interview information collected from Block Designer, Wife, and Owner/Supervisor.

Process (1 script) – Work procedure.

Parts (1 script) – Falling conditions.

Position (1 script) – Position of the faller.

Paper (1 script) – Safety program and meetings.

Possible Corrective Actions -

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Faller Injured Incident

People 1 of 4 - Background information of Faller

Source: Training and employment records, interviews.

Faller (Bjorn)

- Experienced faller with many years in the industry.
- Took the job due to financial pressures at home, and given that work was slow.

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Faller Injured Incident

People 2 of 4 - Background interviews with Crew

Source: Interview.

Owner/Supervisor (Bjorn)

- Facing financial challenges in the industry and stated that “can’t view all the blocks before making a bid”. Stated that he has worked much of the area over the years and ‘fighting’ for work that is available.
- Hard to find experienced fallers and hard to hold onto them.
- Considered that AI was experienced and that it was his call if he didn’t like the setup.
- Considered him a professional and that AI knows what it takes to get the job done.
- Felt considerable financial pressures to make the bid and take the job.
- Stated that ‘sometimes have to cut corners just to get the work’.

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Faller Injured Incident

People 3 of 4 - Background interviews with Crew

Source: Interview.

Block Designer

- Put the cutting plan together to maximize cut and yield.
- When asked, stated that she had no experience / never worked as a faller.

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Faller Injured Incident

People 4 of 4 - Background interviews with Crew

Source: Interview.

Wife

- Concerns with cutting corners on jobs to save costs.
- Stated that it is pretty much up to the faller “to make it work”.
- Family was feeling financial pressures with bills, and he had to take the work.
- AI (faller) got lucky this time – seriously injured but did not die.

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Faller Injured Incident

Process 1 of 1 – Work Procedures

Source: Interviews.

The company does not have documented Safe Work Procedures for operations – the Owner/Supervisor hires professionals who know what it takes to get the job done.

The Owner/Supervisor did not want to walk the block to assess hazards before the Faller went to work.

The Owner/Supervisor did not complete regular man-checks – went to work in another area and intended to meet up with Faller later in the afternoon.

Did have radio communications available.

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Faller Injured Incident

Parts 1 of 1 – Falling Conditions

Source: Logging Plan and Site Map.

- The riparian zone in a gulley at the bottom finger of the block presented difficulties falling safely in a constrained area.
- Trees were leaning into the gulley that presented potential hazards.

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Faller Injured Incident

Position 1 of 1 – Position of the Faller.

Source: Inspection of the incident site and post-incident interviews with the Faller.

- The Faller had a getaway path but a limb from the tree he just felled broke loose and landed on him, severely injuring him.

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Faller Injured Incident

Paper 1 of 1 - Safety Program and Meetings

- The company does not have documented Safe Work Procedures for operations – the Owner/Supervisor stated that he “only hires professionals who know what it takes to get the job done”.

Incident Investigation – Demonstration / Practice Scenarios

Investigation: Faller Injured Incident

Possible Corrective Actions:

Participants will come up with their own list of corrective actions to prevent this incident from happening again. Coach the participants on causes and corrective actions, and make suggestions for improving them, if necessary. This list is not comprehensive and participants will likely develop good recommendations that are not on this list.

Ref #9. Immediate Causes (Worker Behaviour and/or Workplace Conditions)				
Failure to follow safe work practices or rules – did not walk site to identify potential hazards.				
Inadequate awareness of surroundings – did not observe broken limb on the tree he was felling.				
Ref #12: Immediate Corrective Actions	By Whom	By When (D/M/Y)	Date Done (D/M/Y)	Verified by
Supervisor to complete site reconnaissance and walk around with Fallers to identify potential hazards and develop safe work plan.	Bjorn Bloggs - Supervisor	Aug 28, 2017		
Complete hazard assessment as work begins or moving onto new worksite.	Fallers, Bjorn Bloggs - Supervisor	Aug 28, 2017		
Ref # 15: Root Causes of Incident				
Inadequate Work Planning or Programming.				
Inadequate Policy, Procedures, Practices or Guidelines.				
Inadequate Assessment of Needs, Risks and/or Hazards.				
Inadequate Engineering or Design.				
Ref # 17: Root Cause / System Corrective Actions	By Whom	By When (D/M/Y)	Date Done (D/M/Y)	Verified by
Involve Block Designer, Layout Technician, Fallers, Supervisor and other crew in site assessment and work planning.	Bjorn Bloggs – Supervisor, All Crew	Sept 15, 2017		
Develop and institute Safe Work Procedures for all operations.	Bjorn Bloggs – Supervisor, All Crew	Oct 1, 2017		
Require hazard analysis and remediation plan at the start of each shift.	Bjorn Bloggs – Supervisor, All Crew	Sept 15, 2017		
Involve Block Designer, Layout Technician, and Supervisor in site assessment and logging plan development.	Bjorn Bloggs – Supervisor, Block Designer, Layout Techn	Sept 15, 2017		