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10. Incident Investigation Policy

Purpose:

To investigate incidents so that causes can be determined, and corrective actions can be implemented to prevent recurrence.

Policy:

The following types of incidents shall be fully investigated:

1. Accidents that result in a Lost Time Injury.
2. Accidents that cause property damage or interrupt operation.
3. Incidents that have the potential to result in items 1 or 2 above.
4. All incidents that, by regulation, must be reported to OH&S, WCB or other regulatory agencies.

Responsibilities:

- All employees must report all incidents identified above to their direct superior immediately.
- All employees must report the truthful facts regarding any incident.
- Supervisors shall conduct initial investigations along with the Safety Department and submit their reports promptly to their Superintendents.
- The Safety Department shall determine the need for and, if necessary, direct detailed investigations; and shall also determine causes, recommend corrective action, and report to the Safety Manager.
- The Division and Safety Managers shall review all investigation reports, determine corrective action to be taken, and ensure that such action is implemented.

*** The safety information in this policy does not take precedence over O.H. & S. regulations. All employees should be familiar with the O.H. & S. act and regulations.*

10.1. General Overview

Canadian Road Builders Inc. requires employees, subcontractors, and site visitors to immediately report to the site supervisor all incidents that result in injury, property damage, vehicle damage, environmental impact or hazardous materials spill/leak, and all near misses with the potential for serious injury, damage or environmental impact. Site supervisors will report incidents promptly to the Safety Advisor and Division Manager. Each serious incident will be thoroughly investigated and analyzed to determine the cause(s) and contributing factor(s). The analysis and resulting recommendations for corrective actions will be used to reduce or eliminate the risk of further incidents.

10.2. Incident Definition

Incident: an undesired event that resulted in an injury; occupational illness; hazardous materials release; fire or explosion; damage to property, materials, vehicle, tools or equipment; negative environmental impact; and/or violence or threats of violence

Near Miss: An unplanned event that did not result in injury, illness, environmental impact or damage but had the potential to do so.

Serious injuries and Fatalities (SIF): High-risk situation in which management controls are either absent, ineffective, or not complied with, and which will result in a serious or fatal injury if allowed to continue.

Incidents are classed in the following ways:

- Injury
- Licensed Company Vehicle
- Mobile Equipment
- Property
- Complaint
- Enforcements
- Security
- Environmental Release

An “accident” is the result of an incident where injury to people or damage to property has occurred.

All accidents are incidents; All incidents are NOT necessarily accidents.

10.3. Reporting All Incidents

All incidents exact a price. This price can be manifested in reduced efficiency, pain and suffering and/or loss of money and time. The size of the incident is immaterial. It has been proven that large, serious incidents (accidents) were preceded by number of seemingly unimportant small incidents. All incidents must be reported as soon as possible to your foreman.

If any of the following occur, the scene must be frozen unless employees or the public are at risk. Ensure everyone's safety, taking pictures of where everything happened before moving anything. Call your Safety Advisor immediately as these are reportable to the government:

- a. Injury resulting in an employee or public being admitted to the hospital or death
- b. An unplanned or uncontrolled explosion, fire, or flood that causes or has potential to create a serious injury
- c. The collapse or upset of a crane, derrick, or hoist
- d. The collapse or failure of any component of a building or structure necessary for structural integrity

*Reference Part 5 section 40(2) under the Occupational Health and Safety Act.

If there is an incident where a reasonable and informed person would determine that:

- The injury sustained required medical attention beyond first aid, or
- The incident could have cause serious injury and:
 - The hazard was not identified in the hazard assessment, or
 - The identified hazard had not been reasonable controls

It must be reported to the OH&S branch using the new PSI Online Reporting Services:
<http://psi.labour.alberta.ca>

*Reference regulations 1.14.1 under the Occupational Health and Safety Act

Why Report Incidents & Accidents

Near misses or incidents are reported so that they can be tracked. This collection of information can be used to calculate statistics and other information for tracking incident trends. It helps identify training needs; problems with work procedures; and needs for personal protective, safety and emergency equipment. This collected information is necessary for completing investigations and insurance reports as well as complying with regulatory requirements. Most importantly it identifies weaknesses in the safety management system and program. It helps to put the proper controls in place to prevent that incident from reoccurring or a more serious accident taking place. The process of documenting and sharing information with others in the workforce helps to prevent future incidents or potential for the same incident happening on their sites.

10.4 Immediate Actions after an Incident

The immediate actions after an incident that must be taken are as follows:

1. Ensure no further danger to the injured, rescuers and first aid personnel. Secure all hazards before initiating rescue and providing first aid.
2. Call the first aid attendant and provide aid to the injured.
3. Call the local emergency number (e.g., 9-1-1) for serious incidents where advanced first aid and/or emergency transportation to medical care are required. Use the emergency number to request fire/rescue and/or police if these services are required.
4. Notify site supervisory personnel.
5. Contact the Safety Manager for all incidents by phone:
 - a. Samantha Dehod: 1-780-908-1198, Safety Manager
6. The Safety Advisor is responsible for determining if OH&S, Provincial Emergency Program (PEP), or Environment must be contacted. The Safety Advisor will then immediately make the necessary calls.
7. Take all required actions to preserve the incident scene. Nothing must be removed from or changed at the incident location until the Regional Safety Supervisor has given the clearance to do so.
8. Start an investigation.

Critical Incident Stress Reactions

Anyone involved in a serious incident must be aware that personnel may experience a stress reaction. These types of incidents can cause emotional or psychological trauma in people exposed to the incident and are referred as “critical incidents”. Critical incidents are sudden, powerful events outside the range of normal experience and outside of the worker's control. Critical incident stress reactions can range from mild (e.g., a few sleepless nights) to serious (e.g., debilitating depression). These reactions are normal responses to stressful or abnormal events. Workers' feelings about their jobs and the workplace can be seriously affected, and the whole workplace may suffer after a critical incident.

Incident investigators need to be aware of critical incident stress reactions and ensure that anyone so affected is made aware of the assistance that is available through:

- Our Employee and Family Assistance Program (Shepell): 1-800-387-4755.
Une aide immédiate et confidentiellement (Shepell French) 1-800-361-5676.

10.5 Summary of Incident Responsibilities

The responsibilities for incident notification and investigation are as follows:

| Person: | Notify: | Investigation Responsibilities: |
|---------------------------|--|--|
| Persons at incident scene | Immediately notify the Site/Crew Supervisor (minor & serious incidents) | <ul style="list-style-type: none"> • Provide information • Participate in the investigation process |
| Site/Crew Supervisor | Immediately notify the Safety Advisor (minor & serious incidents) | <ul style="list-style-type: none"> • Preserve the incident scene • Start the investigation process • Get assistance from the Safety Supervisor and/or Manager (if required) • Submit an <i>Initial Investigation Report</i> to the Safety Supervisor within 24 hours of the incident • Complete the investigation and submit the completed <i>Investigation Report</i> to the Safety Supervisor within 72 hours of the incident |
| Safety Advisor | Immediately notify: <ul style="list-style-type: none"> • OH&S (serious accidents) • PEP / Environment (spills) • CRB HSE Manager As soon as possible notify: <ul style="list-style-type: none"> • Division Manager | <ul style="list-style-type: none"> • Assist with investigations • Review investigation reports • Conduct investigations when necessary • Submit Initial Investigation Report to OH&S / WCB within 48 hours of the incident • Distribute completed <i>Investigation Reports</i> • Liaise with regulatory agencies |
| CRB HSE Manager | Immediately notify for serious incidents: <ul style="list-style-type: none"> • CRB President • Colas National Safety Manager As required notify: <ul style="list-style-type: none"> • CRB Department Managers | <ul style="list-style-type: none"> • Assist with investigations • Review investigation reports • Conduct investigations when necessary • Provide technical advice on the investigation process and corrective actions |
| CRB President | Immediately notify the President Colas Canada of serious incidents | <ul style="list-style-type: none"> • Provide support to Division Managers |
| Division Superintendent | | <ul style="list-style-type: none"> • Assist and support the supervisor conducting the investigation • Conduct further investigations as required • Review <i>Investigation Reports</i> • Implement corrective actions |
| Division Manager | | <ul style="list-style-type: none"> • Review <i>Investigation Reports</i> • Ensure corrective actions are implemented |

Causes of Incidents and Accidents

The concept of incident investigation is to identify the direct and indirect causes that led up to the incident. These causes can be broken down into the following types:

Direct Man Cause(s):

Identify what the person did or failed to do that directly contributed to the incident.

Many investigations stop as soon as a “guilty” person is found. The hidden or subtle causes are often overlooked. Dismissing an employee may not solve the problem.

Indirect Man Cause(s):

These causes may not be as visible as the direct causes but are related to the incident. They could include such personal problems as: financial, family, medical, peer, owner/sub-contractor relations, fatigue, stress, etc. The investigator should determine all the underlying causes that in some manner lead up to the incident.

Direct Environmental Cause(s):

Identify what occurred or did not occur immediately prior to the incident. This could include such items as: power failures, machinery breakdown, specific operations, or spatial arrangement of equipment.

Indirect Environmental Cause(s):

These causes may be the most difficult to determine but could include: poor lighting, lack of preventative maintenance, quality control problem on purchased equipment, atmospheric contamination.

“Root” Cause:

A corporate or societal systems deficiency that allowed the hazardous condition or situation to exist: improper time management or lack of control. 5 why’s is one way to get to the Root Cause.

10.6. Preparing for an Investigation

Depending on the severity of the incident, the potential for growth or recurrence of the incident and the complexity of remedial action, the foreman may perform the investigation if he is formally trained to do so. If, in his judgment or based on the following set of standards, the incident is too large for him to handle, the investigation process can go farther up the management chain, and also include client representatives, external agencies such as Workplace Health and Safety, RCMP, AEUB, Insurance underwriters, specialty companies and special interest groups.

Even with small seemingly insignificant incidents, the safety advisor or client representative should review the incident/investigation report. If a satisfactory end has not been achieved, additional investigation is warranted. The process is started by the people involved in the incident (if not injured) or witnesses by notifying the supervisor and completing a basic incident report form. All incidents must be reported to the safety department as soon as possible.

Effective incident investigations require the following actions:

1. Immediate response and notifications
2. Collection of information
3. Incident reconstruction and analysis
4. Determination of the root cause(s) and contributing factors
5. Implementation of corrective actions

How Should the Investigation Progress?

The investigation process starts immediately after an incident has occurred. After the initial Emergency Response Actions have been completed, information gathering should start.

The following list is a chronological format for incident/accident scene control and information gathering.

Immediate Response and Notifications

Timely response to the incident scene is critical. Delaying the investigation makes it more difficult to find out exactly what happened. Investigations must take place on the same day of the incident. The immediate actions after an incident that must be taken are as follows:

1. Ensure no further danger to the injured, rescuers and first aid personnel. Secure all hazards before initiating rescue and providing first aid.
2. Call the first aid attendant and provide aid to the injured.
3. Call the local emergency number (e.g., 9-1-1) for serious incidents where advanced first aid and/or emergency transportation to medical care are required. Use the emergency number to request fire/rescue and/or police if these services are required.
4. Notify site supervisory personnel.
5. Contact the Safety Manager for all incidents by phone:

- CRB HSE Manager Sam Dehod: 1-780-908-1194
6. Notify external agencies as required. The Safety Advisor, in consultation with the Site Supervisor/foreman, is responsible for determining if external agencies such as OH&S, WCB and/or Environment, etc. must be contacted. The Safety Advisor will call the external agencies that must be notified.
 7. Take all required actions to preserve the incident scene. Nothing must be removed from or changed at the incident location until the regional safety supervisor has given the clearance to do so. Steps must be taken to preserve the incident scene for two reasons:
 - Any incident required to be reported by regulatory requirements must be preserved until permission has been granted by the investigating agency (e.g., City police, RCMP, OH&S, etc.) to release the scene back to the employer. These agencies may conduct their own investigation and disturbing the scene is viewed as interfering with their investigation. Interfering with their investigation can result in fines and/or jail.
 - Incident investigators (internal and external) want as clear a picture as possible of what happened. Disturbing the scene has the potential to distort the facts.

The scene may be disturbed when necessary for rescue work. Photographs and sketches should be taken as soon as possible if the scene is to be disturbed.

Information Gathering

Before entering an incident scene, it is very important to remember that the first concern of the investigation team is their own safety. Investigators must only enter the incident scene if it is safe to do so. The investigation process begins after the scene is secured of any danger to workers or the public.

Investigators should follow these guidelines for gathering incident information:

- a) Go to the incident location. Make yourself thoroughly familiar with the tasks, materials, environment, personnel and site supervision.
- b) Record information using several techniques including photos, measurements, notes, drawings/sketches, etc.
- c) Record information applicable to the incident related to the following:
 - equipment, machinery, tools and materials
 - site conditions
 - the environmental conditions
 - work practices and/or conditions
 - worksite supervision
 - personnel involved - occupation(s) and experience
 - protective equipment
 - previous incident records of similar occurrences
 - safe work procedures and other supporting documentation
 - emergency procedures
 - first aid services and treatments

- d) Interview personnel who saw the incident and other persons who have details about the incident. Interviews require you to be fair and open minded. Look for facts, NOT someone to blame. During each interview:
- Put the individual at ease.
 - Keep the interview private (interview personnel separately).
 - Advise everyone of the purpose of the interview, e.g., to establish the facts, not to place blame.
 - Obtain the individual's version of how and why the incident occurred. Don't look for confirmation of your own opinion and never argue with the interviewee. Ask open-ended questions that require more than a "yes" or "no" answer.
 - Repeat the individual's account once you have heard it. This is a good time to make notes. Attempt to clear up facts that may not be clear. Do not make assumptions. Use diplomacy and consideration to determine what occurred.
 - Ask each interviewee for corrective action suggestions.
 - Let the individual know by what date the report will be complete.
 - End the interview on a positive note by thanking the person for their assistance.
- e) Gather and review any available written documents that pertain to the incident such as polices, hazard assessments, Tailgate Safety Meetings, Toolbox Safety Talks, safe work practices, safe job procedures, site drawings/plans, operator manuals, maintenance records, training records, AB One Call documents, Safety Alerts, Safety Notices, etc.

10.6. Action Plans

Solely reporting and investigation do not complete the incident/accident investigation procedure or cycle. Sound action plans must be developed and implemented to complete the procedure. The basic premise in incident prevention is to interrupt the "cause and effect" rule. Eliminate or reduce the causative factors and the incidents will be eliminated or at least reduced.

The most important part of the investigation is the analysis, which will lead to recommendations to prevent a recurrence. The analysis, conclusions about incident cause and recommendations to prevent a recurrence are then presented in a report for circulation, action and follow-up.

Review and analyze the information gathered. Start with thorough chronological description of the entire occurrence through the pre-contact, contact, and post-contact stages. All incidents are the result of multiple, simultaneous events coming together resulting in a loss. Look for failures in the systems used to controls hazards, unsafe conditions and unsafe actions. There will be more than one causal factor.

The Investigation team should develop a series of Action Plans for implementation. The plans should specifically identify the remedial procedures necessary in order to eliminate, correct or minimize the causes that lead to the incident. Estimated costs, time lines and suggested methods for implementation should be included. Management will be responsible for the development and implementation of the action plans.

10.7. Implementation of Action Plan

The investigation is completed when an Action Plan with recommendations has been reviewed by Senior Management. Senior Management takes the steps necessary to implement the controls and recommendations, which include the following:

- Eliminating or using alternate material or product
- Educating the employees, Foremen and Contractors of Action Plan
- Purchasing of required equipment and/or materials
- Conduct the necessary training for new procedure, equipment and PPE
- Documentation of the complete process shall be kept in safety files for a minimum of 2 years,

After a set time period conduct a follow-up inspection/audit to ensure that the newly implemented controls are achieving the desired effects. If not, re-evaluate the Action Plan for better results. Implement the new controls and revisit again in a set time period.

Post-Incident Communication

Lessons learned from incidents and preventative actions will be communicated within the Canadian Road Builders Inc. and its divisions through meetings and alerts.

Crew Meetings

Immediately after a *serious incident*, Site Supervisors/Foreman will meet with their crew to:

- Ensure the correct information is received by workers, and to prevent misinformation and rumors from being circulated.
- Answer questions and concerns crews might have about the incident.
- Review pertinent safety information for work to be performed. It is an opportunity to communicate the importance of the hazard identification and control needed to prevent recurrence.

Toolbox Safety Talks

Site Supervisors/Foreman will use information on lessons learned from incidents in a Toolbox Safety Talks once the information is made available through the Safety Advisor and/or *Safety Alerts*.

Safety Alerts

Safety Alerts are a brief summary of an incident and corrective measures. The CRB HSE Manager is responsible for reviewing incident reports and creating and circulating *Safety Alerts* to the Safety advisors and Senior Management. *Safety Alerts* must be reviewed by crews as part of the Toolbox Safety Process (see above), and wherever practical posted in appropriate locations (i.e., site office and lunchrooms/trailers) for review by site personnel.

Investigations by Outside Agencies

Outside agencies such as Occupational Health and Safety, RCMP, City Police, or Coroner's Office may conduct investigations after a serious accident. Our internal investigation results may also be reviewed by these agencies. Copies of outside agencies incident investigation reports can be released to the police on request. Reports concerning fatalities will be released to the District Coroner and to the Chief Coroner. No other organizations or individuals will receive copies of the reports unless there are extenuating circumstances. The disclosure restrictions are outlined in the *Freedom of Information and Protection of Privacy Act*.

Media Relations and Crisis Management

The media may respond to the scene of a serious accident. If this occurs, the Site Supervisor/Foreman is responsible to:

- Notify the Safety Advisor and Division Manager of the arrival of the media.
- Instruct all employees and subcontractors to politely direct any media or other inquiries for information to the designated company spokesperson, simply stating:
 - My name is (Name) and I am (Title) with (Division). This incident has just happened; and I am not prepared to answer any questions at this time. Please stay in this safety area, so we can do our job and take care of the situation. I need to return to the site, but either (our company Spokesperson) or I/foreman will be back to update you when more information is available. Thank you.
 - Important: Do not take any questions currently. If badgered, simply state, that you need to get back to site and you will return when possible.

Allow only emergency response personnel and appropriate local government agency representatives access to the incident scene.