

WORKER'S GUIDE

TO

FIELD LEVEL

RISK

ASSESSMENT

Written by Esther Hudson (Capability Connections) and Deborah Smith (DSA) for
Construction Owners Association of Alberta, 1998

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INTRODUCTION

This guide is designed to be used by workers during the delivery of the training program in Field Level Risk Assessment. It can be used in its current form or customized to include company specific information. This guide can be reformatted and produced as a pocket-sized guidebook for reference after the training.

The Problem

Some Facts

Construction workers have the highest rate of injury accidents of any industry in Alberta.

Many accidents are prevented when workers, like you, identify possible hazards, assess risks and take action to minimize the risks before doing work.

It is your legal responsibility to work safely. It is management's responsibility to ensure worker safety.

Contents

This booklet provides information about how Field Level Risk Assessment can help you to work more safely.

1. The Responsibility to Work Safely
2. What Field Level Risk Assessment Is
3. When and How to do Field Level Risk Assessment
4. The Steps in Field Level Risk Assessment
 - Identify Hazards
 - Assess Risk
 - Control Risk
5. Benefits of Field Level Risk Assessment
6. Summary: Field Level Risk Assessment Flow Chart



The Occupational Health and Safety Act

Employer Responsibilities

Employers are responsible to ensure the health and safety of every worker on a work site. Employers are also responsible to make sure that you, as a worker, understand your health and safety responsibilities.

Worker Responsibilities

You are responsible for taking reasonable care to protect your health and safety and the health and safety of other workers around you on the work site. You are also responsible to cooperate with your employer's health and safety efforts.

Conclusion

Safety is everyone's responsibility. Both employers and workers have responsibilities under health and safety law. Field Level Risk Assessment is one way that both workers and employers can take action on these responsibilities.

What is Field Level Risk Assessment?

A Part of Your Company's Safety Program

There are many ways of improving work site safety. Many companies build safety into their work plans using a variety of methods. These methods include Job Safety Analysis, Hazop, Failure Modes and Effect Analysis, written job specific procedures, etc. These methods are used before construction begins. Field Level Risk Assessment is used at the work site, during construction. It builds on the information from the other methods by adding information about conditions at the actual time and location of the construction.

An Assessment of Risks at the Job Site

Crews and individual workers do Field Level Risk Assessment immediately before doing work on site. As a worker doing Field Level Risk Assessment, you use the information that you have been given about the work and add information from the work site that day. You are expected to think about each job step and identify possible hazards given the current conditions. You are expected to assess risk in relation to each job step and identify ways of controlling the risk.

A Team Discussion and Individual Mental Process

Your supervisor leads a discussion about the job hazards and records your crew's assessment and plans. You also do your own risk assessment as you work. Before taking any action, you stop and think, identify the hazards, assess the risks and put in place controls to minimize or eliminate the risk.

When Do You Do Field Level Risk Assessment?

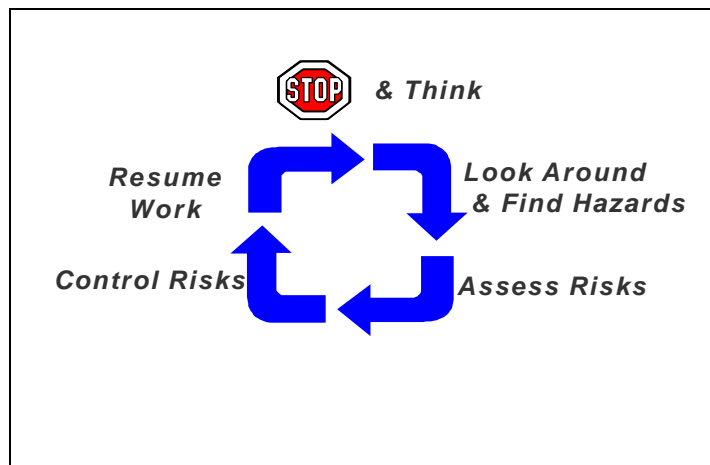
As a worker and a crew member you do Field Level Risk Assessment:

- At the beginning of a new job or a new shift
- When new workers come on site
- When the work changes (e.g. plans are modified, substitute equipment is provided, etc.)
- Whenever work site conditions change (e.g. weather, availability of tools etc.)
- Whenever you change work tasks or equipment
- Whenever a change in another person's activity on the work site could pose a risk to you

How Do You Do Field Level Risk Assessment?

Whether you are doing a Field Level Risk Assessment as a discussion with your crew or as a mental activity while you are working, the steps are the same. For **each job step** you:

1. STOP and Think
2. Look Around and Find Hazards
3. Assess Risks
4. Control Risks
5. Resume Work



The Steps of Field Level Risk Assessment

The “Steps of Field Level Risk Assessment” will help you think through your work effectively. Asking questions at each step of the assessment will focus your thinking. Each question raises an important issue to consider.

Identify

In this step you **Stop, Think and Identify Hazards** in the work that you are doing.

1. Do I clearly **understand** the steps to this job?
 - What exact job will I do, and what specific steps does it involve?
2. Am I physically and mentally **prepared to do each job step**?
 - Am I strong enough to do each of the steps involved in this job?
 - Do I know how to do each step safely?
3. What **could go wrong**?
 - What could upset my plan for each step?
4. Is there a **danger** to others or myself? (any potential danger is a hazard)
 - To equipment?
 - To the environment?
 - Examples: weights, heights, trenches, heat, cold, electricity, explosions, fires, radioactivity, chemicals (liquid, vapour), noise, muscle strains, microbes, sharp objects, vibrations, stress, equipment etc.
5. What could **change** and create a new hazard?
 - What could interfere with how I have planned to do the job safely?
6. Could **other crews, workers, or conditions** pose hazards to me?
 - Will others go through the same mental process and control their hazards?
 - Will their work cause a hazard to me?

Assess Risks

1. How **serious** could this be?
 - What could go wrong as a result of the hazards?
 - Could it cause someone to break a bone, be injured? Cause death?
 - Slow down work? Cause damage to equipment?
 - Contaminate the soil or the air?
2. How **likely** is it to happen?
 - Is it almost certain to happen? Likely to happen? Not very likely? Almost impossible?

The following “**RISK ASSESSMENT MATRIX**” will help you assess the level of risk. The “seriousness” is called the consequences. The “likelihood” is called the probability.

LEVEL OF RISK = Consequences X Probability

Consequences: High (H)– Serious; Medium (M) – Moderate; Low (L) – Minor
Probability: High (H)– Often; Medium (M)– Sometimes; Low (L) – Rarely

Find the code for the consequences along the left side and the code for the probability along top of the Risk Assessment Tool. Draw a mental line across the diagram from the consequences code and down the diagram from the probability code. The point where they meet is the code for the assessment of the risk for the particular hazard. The outcome of the risk assessment will help to determine the most appropriate kind of control to use. **All HIGH and MEDIUM risks must have controls.**

		PROBABILITY		
		High	Med.	Low
CONSEQUENCES	High	H	H	M
	Med.	H	M	L
	Low	M	L	L

Control Risks

1. Are **permits**, written practices, procedures, or work scheduling to reduce number of workers required? i.e. administrative controls
 - Take immediate steps to do this.

2. What can I **do to control** the hazard?
 - Do I know all the required steps in the procedure, code of practice, permit, job plan etc.?
 - Do I know how to control this hazard?
 - Are there other controls that I think are needed? e.g. personal protective equipment (fall protection, ear plugs, safety goggles etc.), process controls (guards, automatic shutdown devices, enclosures, ventilation)

3. Will the controls **affect any other part** of the job being done?
 - Does the control introduce a new hazard? (e.g. exhaust from a heater when it is cold)

4. Do I need to **tell anyone** else?
 - Is there anyone else who could be affected by these controls?
 - Is there a need to coordinate the work being done by more than one person?

5. Are **emergency plans** needed?
 - If the identified hazard has a high risk emergency procedures may be needed.

6. Is there someone that I could **call for help**?
 - Who has the knowledge and skill to help me?

Benefits of Field Level Risk Assessment

For Workers:

- Reduced probability of injuries
- More security for their families
- Improved morale
- Opportunity to make work place improvements
- Opportunity for recognition of increased contribution to the company
- Improved ability to think critically

For Companies:

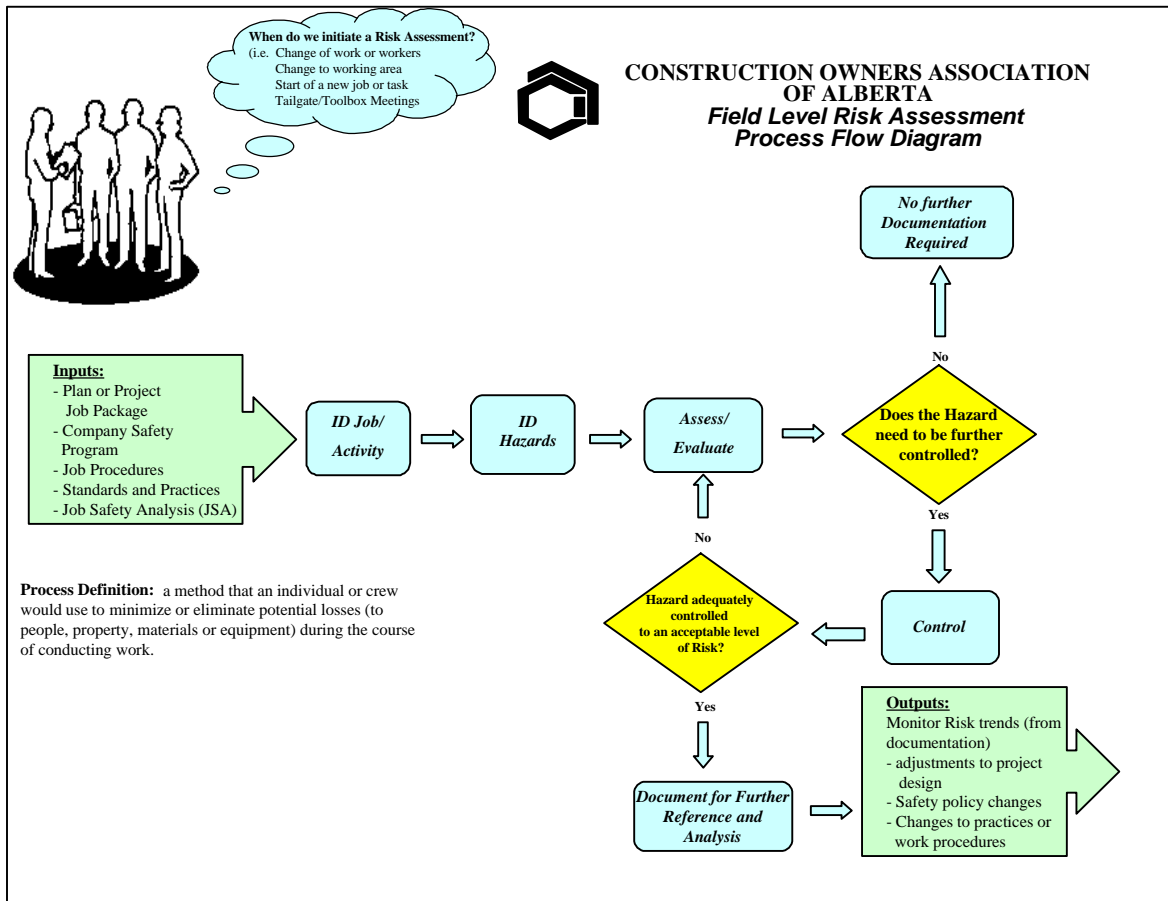
- Improved work methods and productivity
- Direct cost savings
- WCB premium reduction
- Decreased costs to pass on to customers. A competitive edge.
- Better data to improve company safety
- Reduction in the “emotional” costs of accident and injury
- Increased trust and confidence of workers
- Due diligence

Summary: Field Level Risk Assessment

The following diagram summarizes the Field Level Risk Assessment process.

Supervisors use **INPUTS** like the project plan, the company safety program, job procedures, and job safety analysis to ensure worker health and safety. They use immediate information about the actual work location to prepare for a discussion.

Supervisors lead a discussion with crews to **IDENTIFY** the job steps and **IDENTIFY HAZARDS** associated with **each job step**. Together the supervisor and workers **ASSESS the RISKS** of those hazards using the **Risk Assessment Matrix**. They **IDENTIFY CONTROLS** to lower the risk to an acceptable level.



For those risks that are not adequately controlled, further control measures are used. Supervisors **RECORD** the discussion to provide workers with instructions about hazards and how to control them. The record is also used to identify effective ways to improve the way work is done and to increase safety.

Field Level Risk Assessment is done every time conditions, workers or plans change. Workers conduct Field Level Risk Assessment as a **mental process** as they do work. Crews do it as a **team activity** with the supervisor.

Using Field Level Risk Assessment is an effective way for workers and employers to reduce accidents and injury to people and property and to improve how work is done on a daily basis.