

## 23<sup>rd</sup> ANNUAL SKILLS CANADA PROVINCIAL COMPETITION

### Test Project

<b>COMPETITION DATE:</b> March 20, 2020	<b>CONTEST AREA NAME:</b> Workplace Safety
<b>CONTEST AREA NUMBER #:</b> 92	<b>LEVEL:</b> Secondary
<b>DURATION OF CONTEST:</b> 6 hours	<b>LOCATION:</b> College of the North Atlantic, PPD Campus

#### 1 Introduction

There are three activities in the Workplace Safety competition:

1. Hazard Identification
2. Hazard Control Search
3. Occupational Health and Safety (OHS) Research / Presentation

**1.1** The purpose of this document is to provide competitors with the additional details of the three activities that make up the 2020 Workplace Safety National competition.

**1.2** The activities have the following weight for scoring:

1. Hazard Identification: 38%
2. Hazard Control Search: 32 %
3. OHS Research/Presentation: 30%

This document contains an outline of the expectation of each activity and how they will be scored.

Should competitors have further questions, they are encouraged to contact the Provincial Technical Committee Chair, Jennifer Wilson, at [jncwilson98@yahoo.com](mailto:jncwilson98@yahoo.com)

### 2 Activity: Hazard Identification

Value: 38% of final mark

#### 2.1 Overview

- Prior to starting this activity, each competitor will receive an orientation to the mock workplace.
- Each competitor will be provided with a Hazard Identification answer booklet.
- Competitors will be given forty-five (45) consecutive minutes to complete this activity.
- There will be more than one competitor in the mock workplace at any one time.
- No electronic devices may be used for this activity.
- Competitors are required to wear long pants covering the ankle, closed toed shoes and their provincial / territorial competition shirt.

#### 2.2 How will competitors be marked?

For this activity, the competitors will be asked to:

- Identify 12 hazards [two (2) for each of the six (6) hazard categories (i.e. physical, biological, chemical, ergonomic, safety, psychological)],
- For each hazard, identify the potential harm, how the hazard could be controlled and what type of control it is,
- Identify two (2) well-implemented control measures, and
- Record their findings on the hazard identification answer sheet

Example:



<b>What is the hazard?</b>	
Use of a consumer food bottle for a chemical, and no proper WHMIS label.	/1
<b>What is the hazard category?</b>	
Chemical	/0.5
<b>What harm could result from this hazard?</b>	
The worker could mistake the contents of the bottle for something less harmful than it is, not take the necessary precautions, and suffer harmful effects (skin irritation, burns, poisoning) from exposure to contents.	/0.5
<b>Provide a recommendation on the best control type.</b>	
Substitution. It is my recommendation that the bottle be removed from the workplace and replaced with a proper storage bottle that is clearly identified and includes WHMIS information. Purchase proper container.	/1

### 2.3 What might competitors do to prepare for this activity?

To prepare for this activity, competitors may wish to:

- Use this link [http://www.ccohs.com/oshanswers/hsprograms/hazard\\_risk.html](http://www.ccohs.com/oshanswers/hsprograms/hazard_risk.html) to check out “What are examples of hazards?” and “What types of hazards are there?”
- Use this link <http://www.ccohs.ca/oshanswers/prevention/effectiv.html> to check out “What type of hazards do we look for in a workplace?”
- Do an online search of “workplace hazards.”
- Talk to a member of the Occupational Health and Safety Committee at their school or at a workplace.
- Seek further information on hazard controls:  
[https://www.ccohs.ca/products/posters/longdesc/hazard\\_control.html](https://www.ccohs.ca/products/posters/longdesc/hazard_control.html)

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### 3 Activity: Hazard Control Search

Value: 32% of final mark

#### 3.1 Overview

- Each competitor will be provided with a Hazard Control worksheet, and clipboard. Competitors will be given one and a half (1.5) consecutive hours (90 minutes) to complete the hazard control activity.
- More than one competitor will be participating in the hazard control activity at any one time.
- The competitors will be escorted to observe the competition area, pre-determined by the PTC.
- Competitors are required to wear high visibility vests (provided) and long pants covering the ankle.

#### 3.2 How will competitors be marked?

- Competitors will be marked on their ability to gather information on hazard control, as demonstrated in the written answers they provide in their worksheets.
- When collecting information on hazard control, competitors will be expected to use a combination of observing and asking questions, always respectful of the fact that a competition is going on, and that distractions to the contest competitors will not be permitted. Observation must be done from outside the competition site.

#### 3.3 This activity has two components:

1. Observation of a competition site pre-selected by the PTC
2. Completion of the Hazard Control worksheet

Competitors will observe the competition and collect information which they will use to provide written answers to a series of questions found on the Hazard Control worksheet

#### 3.3.1 Questions may cover such areas as:

- Hazards associated with the work done at a competition site
- The nature of hazard controls observed (Elimination/Substitution, Engineering control, Administrative control, or PPE)
- A description of the control (using words and diagrams)
- Challenges associated with implementing controls

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### 3.4 Scoring break down looks like this:

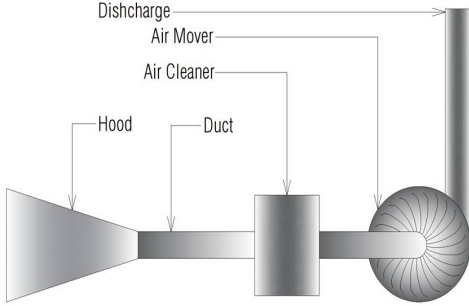
#	Question	Maximum Marks
1	Hazards associated with the work done at a competition site	6
2	The nature of hazard controls observed (Elimination/Substitution, Engineering control, Administrative control, or PPE)	10
3	A description of the control (using words and diagrams)	10
4	Challenges associated with implementing controls	6

#### Example:

Competition site observed is Welding – Local exhaust ventilation.

#	Question	Answer	Maximum Marks
1	Hazards associated with the work done at a competition site	Ergonomic (MSI), exposure to UV light, toxic fumes and gases, heat / fire	6
2	The nature of hazard controls observed (Elimination/Substitution, Engineering control, Administrative control, or PPE)	Elimination/Substitution, Engineering control	10
3	A description of the control (using words and diagrams)	Local exhaust ventilation captures contaminants at, or very near, the source and exhaust to the outside. It is used to provide a continuous supply of fresh outside air. It can maintain temperature and humidity at a comfortable level, reduces potential fire or explosion hazards, and removes or dilutes airborne contaminants. This system consists of a hood (also	10

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		<p>known as the air intake area), duct work that is used to move air from one area to another, an air cleaner, and air mover (or fan) to bring in outside clean and exhaust the indoor contaminate air, and a discharge stack to exhaust the contaminated air.</p>  <p>The diagram illustrates a mechanical ventilation system. On the left, a trapezoidal 'Hood' is connected to a horizontal 'Duct'. This duct leads to a rectangular 'Air Cleaner'. From the air cleaner, the duct continues to a circular 'Air Mover' (fan). Finally, the air is exhausted through a vertical 'Discharge' stack on the right side of the system.</p>	
4	Challenges associated with implementing controls	Cost, employee buy-in and compliance, could change flow of work/time it takes to complete task	6

### 3.5 What might competitors do to prepare for this activity?

To prepare for this activity, competitors may wish to:

- Use this link [http://www.ccohs.com/oshanswers/hsprograms/hazard\\_risk.html](http://www.ccohs.com/oshanswers/hsprograms/hazard_risk.html) to check out “What are examples of hazards?” and “What types of hazards are there?”
- Use this link <http://www.ccohs.ca/oshanswers/prevention/effectiv.html> to check out “What type of hazards do we look for in a workplace?”
- Use this link [http://www.ccohs.ca/oshanswers/hsprograms/hazard\\_control.html](http://www.ccohs.ca/oshanswers/hsprograms/hazard_control.html) to check out “What is a hazard control program?”, “What are the main ways to control a hazard?”, and “What are some of examples of these controls?”
- Do an online search of “workplace hazards” and “workplace controls.”
- Talk to parents and other experienced workers about hazards in their workplaces.
- Talk to a member of the Occupational Health and Safety Committee at your school or at a workplace.

#### **4 Activity: OHS Research / Presentation** Value: 30% of final mark

##### **4.1 Overview**

One method of communicating health and safety information is through oral communication and presentations.

Carrying over from the Hazard Control Search activity, competitors will be assigned one control each through random draw.

Based on the control assigned, they will be asked to identify the potential hazards, explain controls implemented to address this hazard and complete a risk assessment to be submitted prior to the presentation.

Competitors will then take this information and develop a detailed safe work procedure on the site previously observed to control both hazards and risks at the competition site.

Competitors will present to the judges who will represent a workplace employer. The competitors will perform the role of OHS professionals (see OHS Advisor explanation below).

Please note: no presentation software will be used. Laptops / Tablets will only be used for research and preparation of the safe work procedure.

##### **4.1.1 This activity has two parts:**

Part 1: 1.5 hours (90 consecutive minutes) to research their assigned control and develop a risk assessment and safe work procedure to be discussed with the employer.

Part 2: 1 hour (60 minutes) allowed for presentations of the safe work procedure.

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- Electronic devices are required for this activity – competitors will use their own tablets / laptops to research and develop the safe work procedure.
- Each competitor will be provided with a risk assessment matrix and safe work procedure template at the time of the activity.
- Presentation:
  - The order of presentation will be assigned by random draw at the time of the presentations.
  - Competitors will be judged on how well they organize and communicate their safe work procedure. Both content of the risk assessment and safe work procedure as well as their delivery will be scored.

### *OHS Advisor:*

- To contribute to the maintenance of a safe and healthy work environment by implementing and monitoring OHS systems and processes in their local area. This includes managing OHS administrative processes, conducting training and effectively using a range of OHS tools and processes to implement OHS programs and drive compliance.
- To initiate, promote and implement site-level activities to improve OHS.
- To contribute to the implementation and monitoring of critical controls.
  - Knowledge
  - Analyze and evaluate information
  - Problem solving
- Uses communication and engagement skills, including negotiation and conflict management skills, to initiate, promote and support change.
- Uses mentoring skills to develop OHS capability of site operational and OHS personnel.

### 4.2 Scoring

- |                     |          |
|---------------------|----------|
| 1. Research/Content | 15 marks |
| 2. Presentation     | 15 marks |

- The participant will present their research explaining what control they were assigned, the potential hazards associated if the control is not implemented, the findings of their completed risk assessment, and the safe work procedure that should be implemented to ensure the work is carried out in a safe manner.
- Each competitor will deliver a 5-8 minute presentation that has been researched and prepared on site and delivered orally. At the 8 minute mark, presentations will be stopped.
- Following the presentation participants shall be prepared to answer questions from the panel of judges.





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- The order of presentation will be assigned by random draw at the time of the presentations.
- Competitors will be judged on how well they organize and communicate the key points. Both content and delivery will be scored.