

## Level One

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Compulsory Workplace Competency Standards assessed using the assessment guides in this Workplace Logbook		
Code	Title	Credit
IE102-1WC	Comply with health and safety regulations	2
IE103-1WC	Follow safe working practices in an electrical workplace	2
IE106-1WC	Respond to fire emergencies	1
IE108-1WC	Apply basic knowledge of electrical safety	2
IE114-1WC	Use hand and power tools	4
IE115-1WC	Demonstrate safe and proper use of pneumatic and hydraulic tools	2
IE116-1WC	Demonstrate and apply knowledge of PC hardware and software	4
IE120-1WC	Demonstrate knowledge of workplace communication standards	1
IE121-1WC	Demonstrate knowledge of professional behaviour	1

### **Specification**

People credited with this standard are able to:

**Interpret and comply with health and safety regulations, standards and guidelines.**

**Credit 2**

#### **Quality Assurance**

Any assessor assessing against this competency standard must be endorsed as occupationally competent by the employer; and have completed the assessor registration competency.

#### **Reference**

WorkSafeBC Occupational Health & Safety (OHS) regulations.

#### **Tasks**

##### **Task 1**

Demonstrate knowledge of and comply with health and safety regulations and procedures applicable to workers in the industrial workplace.

### **Assessment**

With training and guidance you will acquire the skills and knowledge to enable you to competently demonstrate completion of these tasks to your assessor. You must keep a record, on the diary pages included, of the details of the work done when completing the tasks to help the assessor see the experience you have gained prior to the assessment decision being made.

### **Evidence**

Assessment of this standard requires the following types of evidence be gathered by you and presented by you to your assessor:

- Completed apprentice work diary for each task – add more pages if you need to
- Observation by the assessor of you completing the relevant tasks
- Task verification – another person who has observed you completing the tasks to the appropriate standard
- Copies of work records, where applicable, or reference to work records to show when the tasks were completed.

The specific evidence requirements you must present are listed on the following pages.



**Comply with health and safety regulations**

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**Use the following table to:**

- identify the health and safety regulations that apply in your workplace
- describe how your workplace complies with those regulations.

(1.2)

<b>Regulations that apply</b>	<b>How your workplace complies</b>

**Assessor Observation**

(To be completed by the assessor after the apprentice has performed the tasks competently in the workplace)

I confirm I have seen the apprentice perform the following task to the standard outlined and attest to his or her competence. *Tick the boxes you have observed*

The purpose and role of WorkSafeBC, Mines Inspector and the National Energy Board was described including: (1.1)

- rights and responsibilities of employers and employees
- reporting procedures
- workplace inspections

Knowledge of health and safety regulations was demonstrated and regulations, standards and guidelines were complied with in terms of: (1.2)

all regulations applicable in the apprentice's workplace.

All apprentice's explanations, descriptions, and activities complied with current legislation, including the Canadian Electrical Code, WorkSafeBC or other applicable regulations, and industry practice.

Assessor Name (Printed) \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Additional Supporting Evidence**

(To be completed by the apprentice and signed by the assessor)

Describe what workplace records are available to verify you performed this work.

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Describe where a moderator can locate these records to verify your work when doing a quality check.

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Name and describe the CEC rules required when you performed these tasks.

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Which manufacturer guidelines were followed when doing these tasks?

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Apprentice Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Additional Questions**

Attach written notes of any additional questions asked of the apprentice and answers given. Ensure they are signed and dated by both the apprentice and assessor.

**Task verification**

Obtain confirmation from a third party who will verify you have carried out the tasks as assigned to the standard described.

Name of task verifier: \_\_\_\_\_

Position in the company: \_\_\_\_\_

Signature of task verifier: \_\_\_\_\_

Date: \_\_\_\_\_

Apprentice Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Follow safe working practices in an electrical workplace**

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**Specification**

People credited with this standard are able to:

**Follow safe working practices in an electrical workplace.**

**Credits 2**

**Prerequisite**

Competency Standard IE101-1TC, Demonstrate knowledge of safe working practices for electrical workers; and

Competency Standard IE102-1WC, Comply with health and safety regulations

**Assessment**

For assessment purposes, all explanations, descriptions, and activities must comply with current legislation, including the Canadian Electrical Code, WorkSafeBC or other applicable regulations, and industry practice.

**Quality Assurance**

Any assessor assessing against this competency standard must be a qualified electrician with Red Seal endorsement and industrial experience; and have completed the assessor registration competency.

**References**

The Canadian Electrical Code, Part I, Canadian Standards Association, most current edition (CEC)  
WorkSafeBC Occupational Health and Safety (OHS) regulations.

**Tasks****Task 1**

Identify risk of injury and equipment damage in common industrial work situations, act to minimize risk to self and communicate risks to minimize risks to others.

**Task 2**

Apply the use of the Workplace Hazardous Materials Information System (WHMIS) and use proper procedures for personal protection from hazardous materials.

**Assessment**

With training and guidance you will acquire the skills and knowledge to enable you to competently demonstrate completion of these tasks to your assessor. You must keep a record, on the diary pages included, of the details of the work done when completing the tasks to help the assessor see the experience you have gained prior to the assessment decision being made.

**Evidence**

Assessment of this standard requires the following types of evidence be gathered by you and presented by you to your assessor:

- Completed apprentice work diary for each task – add more pages if you need to
- Observation by the assessor of you completing the relevant tasks
- Task verification – another person who has observed you completing the tasks to the appropriate standard
- Copies of work records, where applicable, or reference to work records to show when the tasks were completed.

The specific evidence requirements you must present are listed on the following pages.

**Follow safe working practices in an electrical workplace**

**Task 1: Identify risk of injury and equipment damage in common industrial work situations, act to minimize risk to self and communicate risks to minimize risks to others.**

**Assess risks in your workplace and identify how you would minimize their effect.**

Record the risks by completing the table below and categorizing the risks accordingly.

(1.1)

Risk	Risk category*	Minimizing actions

\*Include: environmental risks, slips, trips and falls, injury to others, injury from moving machinery. You may include others too – please specify .







## Follow safe working practices in an electrical workplace

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### Assessor Observation

(To be completed by the assessor after the apprentice has performed the tasks competently in the workplace)

I confirm I have seen the apprentice perform the following task to the standard outlined and attest to his or her competence. *Tick the boxes you have observed*

Workplace risks were assessed and minimized including: (1.1)

- environmental risks
- slips
- trips and falls
- injury to others
- injury from moving machinery.

Risks and risk situations were communicated to others including using: (1.2)

- signage
- tagging
- verbal communications
- written communication
- safe work cards
- risk hazard assessment procedures
- accident reporting procedures.

WHMIS information was used correctly to safely work with hazardous materials in the workplace including: (2.1)

- material safety data sheets (MSDS)
- labelling.

Emergency procedures for dealing with spills of dangerous materials and personal exposure were followed. Knowledge of the procedures was demonstrated.

The following elements were included: (2.2)

- spill containment
- personal exposure to hazardous materials.

**Note:** this may be simulated for assessment purposes if no workplace opportunity occurs.

Protective equipment was used with hazardous materials: (2.3)

- breathing protection equipment was used
- eye protection equipment was used
- skin protection equipment was used.

**Note:** this may be simulated for assessment purposes if no workplace opportunity occurs.

All apprentice's explanations, descriptions, and activities complied with current legislation, including the Canadian Electrical Code, WorkSafeBC or other applicable regulations, and industry practice.

Assessor Name (Printed) \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Follow safe working practices in an electrical workplace**

**Additional Supporting Evidence**

(To be completed by the apprentice and signed by the assessor)

Describe what workplace records are available to verify you performed this work.

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\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Describe where a moderator can locate these records to verify your work when doing a quality check.

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\_\_\_\_\_  
\_\_\_\_\_

Name and describe the CEC rules required when you performed these tasks.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Which manufacturer guidelines were followed when doing these tasks?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Apprentice Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Additional Questions**

Attach written notes of any additional questions asked of the apprentice and answers given. Ensure they are signed and dated by both the apprentice and assessor.

**Task verification**

Obtain confirmation from a third party who will verify you have carried out the tasks as assigned to the standard described.

Name of task verifier: \_\_\_\_\_

Position in the company: \_\_\_\_\_

Signature of task verifier: \_\_\_\_\_

Date: \_\_\_\_\_

Apprentice Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Specification**

People credited with this standard are able to:

**Safely respond to fire emergencies.**

**Credit 1**

**Prerequisite**

Competency Standard IE101-1TC, Demonstrate knowledge of safe working practices for electrical workers

**Assessment**

For assessment purposes, all explanations, descriptions, and activities must comply with current legislation, including the Canadian Electrical Code, WorkSafeBC or other applicable regulations, and industry practice.

**Quality Assurance**

Any assessor assessing against this competency standard must be endorsed as occupationally competent by the employer; and have completed the assessor registration competency.

**References**

The Canadian Electrical Code, Part I, Canadian Standards Association, most current edition (CEC)  
Company insurer regulations and guidelines.

**Tasks**

**Task 1**

Respond to fire emergencies in accordance with organizational requirements.

**Assessment**

With training and guidance you will acquire the skills and knowledge to enable you to competently demonstrate completion of these tasks to your assessor. You must keep a record, on the diary pages included, of the details of the work done when completing the tasks to help the assessor see the experience you have gained prior to the assessment decision being made.

**Evidence**

Assessment of this standard requires the following types of evidence be gathered by you and presented by you to your assessor:

- Completed apprentice work diary for each task – add more pages if you need to
- Observation by the assessor of you completing the relevant tasks
- Task verification – another person who has observed you completing the tasks to the appropriate standard
- Copies of work records, where applicable, or reference to work records to show when the tasks were completed.

The specific evidence requirements you must present are listed on the following pages.



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**Additional Supporting Evidence**

(To be completed by the apprentice and signed by the assessor)

Describe what workplace records are available to verify you performed this work.

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Describe where a moderator can locate these records to verify your work when doing a quality check.

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Name and describe the CEC rules required when you performed these tasks.

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Which manufacturer guidelines were followed when doing these tasks?

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Apprentice Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Additional Questions**

Attach written notes of any additional questions asked of the apprentice and answers given. Ensure they are signed and dated by both the apprentice and assessor.

**Task verification**

Obtain confirmation from a third party who will verify you have carried out the tasks as assigned to the standard described.

Name of task verifier: \_\_\_\_\_

Position in the company: \_\_\_\_\_

Signature of task verifier: \_\_\_\_\_

Date: \_\_\_\_\_

Apprentice Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Specification**

People credited with this standard are able to:

**Follow procedures for working safely with energized and de-energized electrical circuit and power sources.**

**Credit 2**

**Prerequisite**

Competency Standard IE107-1TC, Demonstrate knowledge of electrical safety

**Assessment**

For assessment purposes, all explanations, descriptions, and activities must comply with current legislation, including the Canadian Electrical Code, WorkSafeBC or other applicable regulations, and industry practice.

**Quality Assurance**

Any assessor assessing against this competency standard must be a qualified electrician with Red Seal endorsement and industrial experience; and have completed the assessor registration competency.

**References**

The Canadian Electrical Code, Part I, Canadian Standards Association, most current edition (CEC)  
WorkSafeBC Occupational Health and Safety (OHS) regulations  
Arc Flash Assessment requirements – regulatory reference is NFPA 70 E. CSA regulation is forthcoming June 2008.

**Sector References**

Mines Act [RSBC 1996] CHAPTER 293  
CAN/CSA-M421-00 (R2005) - Use of electricity in mines.

**Definitions**

*Properly* – to CEC rules and in a manner that complies with WorkSafeBC regulations  
*jumper* – temporary hardware link  
*force* – temporary software link.

**Tasks**

**Task 1**

Follow procedures for safe testing of energized electrical circuits and power sources in accordance with CEC rules.

**Task 2**

Follow safe procedures for de-energizing, tagging, locking out, removing tags and lockouts, testing, and re-energizing equipment; referencing procedures and codes outlined in CEC, Mines Act BC, Use of Electricity in Mines (CSA), WorkSafeBC OHS regulations.

**Assessment**

With training and guidance you will acquire the skills and knowledge to enable you to competently demonstrate completion of these tasks to your assessor. You must keep a record, on the diary pages included, of the details of the work done when completing the tasks to help the assessor see the experience you have gained prior to the assessment decision being made.





**Assessor Observation**

(To be completed by the assessor after the apprentice has performed the tasks competently in the workplace)

I confirm I have seen the apprentice perform the following task to the standard outlined and attest to his or her competence. *Tick the boxes you have observed*

- Carried out isolation activities safely in accordance with industry practice. (1.1)

Please specify which of the following were included in the isolated activity:

- tagging
- locking
- circuit isolation
- fuses and links
- barriers and warning signs
- back feed awareness checks
- zero energy state test
- procedure to energize and de-energize breakers and equipment.

**Note:** Permits are required according to operational requirements (i.e. hot work).  
Which permit applied?

- 
- Used protective equipment to ensure personal safety, the safety of others, and the safety of equipment in accordance with best practice, including: (1.2)

- using high voltage protective equipment (where required)
- wearing gloves
- wearing safety glasses.

**Note:** best practice includes minimum standards identified in Arc Flash Assessment requirements – regulatory reference NFPA 74.3 and company requirements, which are often much stricter than regulatory requirements.

- Demonstrated safe use of test equipment including: (1.3)

- using test equipment correctly
- verifying test equipment was safe to use.

**Note:** safe use of appropriate test equipment is all that is required here. Competency standard IE128-1TC, assesses use and handling of a range of basic test equipment.

- Properly installed grounding equipment including: (1.4)

- installing portable grounding
- installing ground cable.
- installing ground chains (where required).

- All apprentice's explanations, descriptions, and activities complied with current legislation, including the Canadian Electrical Code, WorkSafeBC or other applicable regulations, and industry practice.

Assessor Name (Printed) \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_





**Apply basic knowledge of electrical safety**

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**Additional Supporting Evidence**

(To be completed by the apprentice and signed by the assessor)

Describe what workplace records are available to verify you performed this work.

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Describe where a moderator can locate these records to verify your work when doing a quality check.

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Name and describe the CEC rules required when you performed these tasks.

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Which manufacturer guidelines were followed when doing these tasks?

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Apprentice Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Additional Questions**

Attach written notes of any additional questions asked of the apprentice and answers given. Ensure they are signed and dated by both the apprentice and assessor.

**Task verification**

Obtain confirmation from a third party who will verify you have carried out the tasks as assigned to the standard described.

Name of task verifier: \_\_\_\_\_

Position in the company: \_\_\_\_\_

Signature of task verifier: \_\_\_\_\_

Date: \_\_\_\_\_

Apprentice Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## Specification

People credited with this standard are able to:

**Demonstrate proper use, application and handling of hand tools, portable power tools and machine tools.**

**Credit 4**

### Assessment

For assessment purposes, all explanations, descriptions, and activities must comply with current legislation, including the Canadian Electrical Code, WorkSafeBC or other applicable regulations and industry practice.

*Assessment note*            Proper use includes safe working conditions - such things as sources of ignition, environmental factors etc.

### Quality Assurance

Any assessor assessing against this competency standard must be a qualified electrician with Red Seal endorsement and industrial experience; and have completed the assessor registration competency.

### References

WorkSafeBC Occupational Health and Safety (OHS) regulations.

### Tasks

The following assessment relates directly to the competency standard IE 114-1WC: Use hand and power tools. The tasks are:

#### Task 1

Demonstrate proper use of non-powered hand tools.

#### Task 2

Demonstrate proper use, application and handling of portable power tools.

#### Task 3

Demonstrate proper use, application and handling of stationary power tools used by electricians.

## Assessment

With training and guidance you will acquire the skills and knowledge to enable you to competently demonstrate completion of these tasks to your assessor. You must keep a record, on the diary pages included, of the details of the work done when completing the tasks to help the assessor see the experience you have gained prior to the assessment decision being made.

## Evidence

Assessment of this standard requires the following types of evidence be gathered by you and presented by you to your assessor:

- Completed apprentice work diary for each task – add more pages if you need to
- Observation by the assessor of you completing the relevant tasks
- Task verification – another person who has observed you completing the tasks to the appropriate standard
- Copies of work records, where applicable, or reference to work records to show when the tasks were completed.

The specific evidence requirements you must present are listed on the following pages.



**Assessor Observation – Non-powered hand tools**

(To be completed by the assessor after the apprentice has performed the tasks competently in the workplace)

I confirm I have seen the apprentice perform the following task to the standard outlined and attest to his or her competence. *Tick the boxes you have observed*

Correctly selected and used hand tools for common electrical maintenance and installation tasks. (1.1)

Maintained common electrician’s hand tools in proper working condition: (1.2)

maintained to be operable

maintained to be safe and to be identifiable as being safe to use.

**Note:** standards vary widely between journeyperson and company maintenance departments. The tool is to be kept useable and safe. For this to occur maintenance of some sort is required.

All apprentice’s explanations, descriptions, and activities complied with current legislation, including the Canadian Electrical Code, WorkSafeBC or other applicable regulations, and industry practice.

Assessor Name (Printed) \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Task 2: Demonstrate proper use, application and handling of portable power tools.**

Select a suitable date range (for example a few days/weeks) that covers a variety of portable power tools typical to your work type.

Identify the tools used, tool function and safety and maintenance requirements to be followed. Tools that must be included are electric drill, grinders, saws and threaders.

Identify blade/bit/cutters, guards and personal safety equipment.

Complete the following diary table to record the information:

(2.1, 2.2)



Date/s	Portable power tools used and blade/cutter/bits	Tool function/task	Safety requirements (including personal safety, guards and working conditions)	Day to day maintenance requirements

**Assessor Observation – Portable power tools**

(To be completed by the assessor after the apprentice has performed the tasks competently in the workplace)

I confirm I have seen the apprentice perform the following task to the standard outlined and attest to his or her competence.

Selected and used portable power tools. (2.1)

- electric drill
- grinders
- saws
- threaders

other specify \_\_\_\_\_

other specify \_\_\_\_\_

other specify \_\_\_\_\_

- blades were selected and changed (kept sharp and appropriate to material)
- bits and cutters were selected and changed/fitted (kept sharp and appropriate to material)
- personal protection equipment was selected and worn appropriately
- guards were set up and used where appropriate
- working conditions were safe.

**Note:** there is a very wide selection of power tools in use, which vary by application. Assessment must take this into account and not restrict assessment to the list above.

Maintained common portable power tools in proper working condition. (2.2)

**Note:** maintain is to leave the tool in good working order but not to perform repair and refurbishment of the tool.

All apprentice's explanations, descriptions, and activities complied with current legislation, including the Canadian Electrical Code, WorkSafeBC or other applicable regulations, and industry practice.

Assessor Name (Printed) \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Task 3: Demonstrate proper use, application and handling of machine tools used by electricians.**

**Note:** selection of tools varies by application and should be appropriate to the situation.

Select a suitable date range (for example a few days/weeks) that covers a variety of electrical machines typical used in your workplace.

Identify the machines used, tool function and safety and maintenance requirements to be followed. Typical machines that may be included are: drill press, bench grinder, circular saw, table saw, radial arm saw.

Complete the following diary table to record the information: (3.1, 3.2)



**IE114-1WC on job**  
**Use hand and power tools**

<b>Date/s</b>	<b>Machine power tools used and blade/cutter/bits</b>	<b>Machine function/task.</b>	<b>Safety requirements (including personal safety, guards and working conditions)</b>	<b>Day to day maintenance requirements</b>

**Assessor Observation – Demonstrate proper use, application and handling of machine tools used by electricians.**

(To be completed by the assessor after the apprentice has performed the tasks competently in the workplace)

I confirm I have seen the apprentice perform the following task to the standard outlined and attest to his or her competence. *Tick the boxes you have observed.*

Demonstrate proper use of stationary power tools and equipment used by electricians. (3.1)

specify machine tool used \_\_\_\_\_

specify machine tool used \_\_\_\_\_

specify machine tool used \_\_\_\_\_

- checked and changed blades
- checked and changed bits and cutters
- wore and used personal safety equipment correctly
- used and setup guards correctly.

**Note:** selection of tools varies by application and should be appropriate to the situation.

Maintained common stationary power tools in proper working condition. (3.2)

**Note:** maintain is to leave the tool in good working order but not to perform repair and refurbishment of the tool.

All apprentice's explanations, descriptions, and activities complied with current legislation, including the Canadian Electrical Code, WorkSafeBC or other applicable regulations, and industry practice.

Assessor Name (Printed) \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Additional Supporting Evidence**

(To be completed by the apprentice and signed by the assessor)

Describe what workplace records are available to verify you performed this work – for example job sheets etc.

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Describe where a moderator can locate these records to verify your work when doing a quality check.

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Name and describe the CEC rules required when you performed these tasks.

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Which manufacturer guidelines were followed when doing these tasks?

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Apprentice Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Additional Questions**

Attach written notes of any additional questions asked of the apprentice and answers given. Ensure they are signed and dated by both the apprentice and assessor.

**Task verification**

Obtain confirmation from a third party who will verify you have carried out the tasks as assigned to the standard described.

Name of task verifier: \_\_\_\_\_

Position in the company: \_\_\_\_\_

Signature of task verifier: \_\_\_\_\_

Date: \_\_\_\_\_

Apprentice Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**IE115-1WC on job**

**Demonstrate safe and proper use of pneumatic and hydraulic tools**

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**Specification**

People credited with this standard are able to:

**Safely and properly use pneumatic and hydraulic tools (for electricians).**

**Credit 2**

**Prerequisite**

Competency Standard IE101-1TC, Demonstrate knowledge of safe working practices for electrical workers

**Assessment**

For assessment purposes, all explanations, descriptions, and activities must comply with current legislation, including the Canadian Electrical Code, WorkSafeBC or other applicable regulations and industry practice.

*Assessment note* Proper use includes safe working conditions - such things as sources of ignition, environmental factors etc.

**Quality Assurance**

Any assessor assessing against this competency standard must be endorsed as occupationally competent by the employer; and have completed the assessor registration competency.

**References**

WorkSafeBC Occupational Health and Safety (OHS) regulations.

**Tasks**

The following assessment relates directly to the competency standard IE115-1WC: Demonstrate safe and proper use of pneumatic and hydraulic tools. The tasks are:

**Task 1**

Demonstrate proper use, application and handling of pneumatic tools used by electricians.

**Task 2**

Demonstrate proper use, application and handling of hydraulic tools used by electricians.

**Assessment**

With training and guidance you will acquire the skills and knowledge to enable you to competently demonstrate completion of these tasks to your assessor. You must keep a record, on the diary pages included, of the details of the work done when completing the tasks to help the assessor see the experience you have gained prior to the assessment decision being made.

**Evidence**

Assessment of this standard requires the following types of evidence be gathered by you and presented by you to your assessor:

- Completed apprentice work diary for each task – add more pages if you need to
- Observation by the assessor of you completing the relevant tasks
- Task verification – another person who has observed you completing the tasks to the appropriate standard
- Copies of work records, where applicable, or reference to work records to show when the tasks were completed.

The specific evidence requirements you must present are listed on the following pages.

**IE115-1WC on job**  
**Demonstrate safe and proper use of pneumatic and hydraulic tools**

**Task 1: Demonstrate proper use, application and handling of pneumatic tools used by electricians.**

Tools may include: impact drill, impact wrench, air grinder, air lance, air gun and air chisel.

Complete the following work diary table to record the completion details for task 1. (1.1, 1.2)

Proper use may include changing and setting bits, blades, guards, aligning parts of the tool, setting pressure and lubrication of the tool. State which of these processes are used when completing the table.

**Apprentice Diary – Demonstrate proper use of pneumatic tools and attachments**

Date/s	Air tools used	Tool function/task	Safety requirements	Maintenance requirements

**Assessor Observation – Demonstrate proper use of pneumatic tools and attachments**

(To be completed by the assessor after the apprentice has performed the tasks competently in the workplace)

I confirm I have seen the apprentice perform the following task to the standard outlined and attest to his or her competence.

Demonstrated proper use of pneumatic tools and attachments: (1.1)

- air safety procedures were demonstrated
- safe working conditions were kept
- personal protection equipment was worn and used correctly
- guards were used correctly/ appropriately.

Maintain pneumatic tools in proper working condition. (1.2)

All apprentice’s explanations, descriptions, and activities complied with current legislation, including the Canadian Electrical Code, WorkSafeBC or other applicable regulations, and industry practice.

Assessor Name (Printed) \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**IE115-1WC on job**  
**Demonstrate safe and proper use of pneumatic and hydraulic tools**

**Task 2 Demonstrate proper use, application and handling of hydraulic tools used by electricians.**

Tools used may include pullers, presses, benders, crimpers, cutters, shears, jacks, knock out punches.

Complete the following work diary table to record the completion details for task 2. (2.1, 2.2)

Proper use may include changing and setting bits, blades, guards, aligning parts of the tool, setting pressure and lubrication of the tool. State which of these processes are used when completing the table.

**Apprentice Diary – Demonstrate proper use, application and handling of hydraulic tools**

Date/s	Hydraulic tools used	Tool function/task	Safety requirements	Maintenance requirements

**Assessor Observation – Demonstrate proper use, application and handling of hydraulic tools**

(To be completed by the assessor after the apprentice has performed the tasks competently in the workplace)

I confirm I have seen the apprentice perform the following task to the standard outlined and attest to his or her competence. *Tick the boxes you have observed*

- Selected and safely used hydraulic tools and relevant attachments: (2.1)
  - hydraulic safety was observed and carried out appropriately
  - working conditions were safe
  - appropriate personal protection equipment was worn/used
  - guards were used safely and correctly.

- Hydraulic tools were maintained in proper working condition. (2.2)

- All apprentice's explanations, descriptions, and activities complied with current legislation, including the Canadian Electrical Code, WorkSafeBC or other applicable regulations, and industry practice.

Assessor Name (Printed) \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Additional Supporting Evidence**

**IE115-1WC on job**

**Demonstrate safe and proper use of pneumatic and hydraulic tools**

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(To be completed by the apprentice and signed by the assessor)

Describe what workplace records are available to verify you performed this work.

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Describe where a moderator can locate these records to verify your work when doing a quality check.

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Name and describe the CEC rules required when you performed these tasks.

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Which manufacturer guidelines were followed when doing these tasks?

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Apprentice Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Additional Questions**

Attach written notes of any additional questions asked of the apprentice and answers given. Ensure they are signed and dated by both the apprentice and assessor.

**Task verification**

Obtain confirmation from a third party who will verify you have carried out the tasks as assigned to the standard described.

Name of task verifier: \_\_\_\_\_

Position in the company: \_\_\_\_\_

Signature of task verifier: \_\_\_\_\_

Date: \_\_\_\_\_

Apprentice Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## **Demonstrate and apply knowledge of PC Hardware and Software**

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### **Specification**

People credited with this standard are able to:

**Describe the main components of the PC, state their uses and relationship to each other, perform troubleshooting and installation and describe ways of networking computers and devices. Use common software applications to deliver e-mail, track a schedule and prepare and modify documents and databases.**

### **Credit 4**

#### **Assessment**

For assessment purposes, all explanations, descriptions, and activities must comply with current legislation, including the Canadian Electrical Code, WorkSafeBC or other applicable regulations and industry practice.

It is expected that this competency standard will be completed in the workplace, but can be completed with a training provider if no access to workplace computers is possible.

#### **Quality Assurance**

Any assessor assessing against this competency standard must be competent in the topic and have completed the assessor registration competency.

#### **Definitions**

I/O is an abbreviation for input-output.

#### **Tasks**

The following assessment tasks relate directly to the competency standard IE116-1WC: Demonstrate and apply knowledge of PC hardware and software. The tasks are:

##### **Task 1**

Demonstrate knowledge of the main components of the PC, state their uses and relationship to each other, use media storage devices, I/O protocols and remote devices.

##### **Task 2**

Prepare, file and distribute documents using common office software applications.

### **Assessment**

With training and guidance you will acquire the skills and knowledge to enable you to competently demonstrate completion of these tasks to your assessor. You must keep a record, on the diary pages included, of the details of the work done when completing the tasks to help the assessor see the experience you have gained prior to the assessment decision being made.

### **Evidence**

Assessment of this standard requires the following types of evidence be gathered by you and presented by you to your assessor:

- Completed apprentice work diary for each task – add more pages if you need to
- Observation by the assessor of you completing the relevant tasks
- Task verification – another person who has observed you completing the tasks to the appropriate standard
- Copies of work records, where applicable, or reference to work records to show when the tasks were completed.

The specific evidence requirements you must present are listed on the following pages.

**Demonstrate and apply knowledge of PC Hardware and Software**

**Task 1: Demonstrate knowledge of the main components of the PC, state their uses and relationship to each other, use media storage devices, I/O protocols and remote devices.**

Describe/define the following computer components and systems to demonstrate your overview understanding of main PC components: (1.1)

Component	Description
hardware components	
bus systems	
operating system processor requirements	
RAM	
communications hardware (i.e. modems)	

**Demonstrate and apply knowledge of PC Hardware and Software**

Describe/define the following computer media systems to demonstrate your overview understanding of PC information storage: (1.2)

Component	Description
hard drives	
optical drives	
bulk magnetic storage	
tape drives	
file servers	

**Demonstrate and apply knowledge of PC Hardware and Software**

Describe/define the following computer input and output (I/O) connection types and devices: (or others relevant to your workplace) (1.3)

<b>Device</b>	<b>Description</b>
parallel	
Serial	
USB	
scanners	
printers	
plotters	



**Demonstrate and apply knowledge of PC Hardware and Software**

**Assessor Observation – Using PCs, media storage devices, I/O protocols and remote devices**

(To be completed by the assessor after the apprentice has performed the tasks competently in the workplace)

I confirm I have seen the apprentice perform the following task to the standard outlined and attest to his or her competence. *Tick the boxes you have observed*

Demonstrated and applied knowledge of the main components of the PC and their function: (1.1)

- described and used hardware components
- described and used a bus system
- described how operating systems and processor capability relate
- used operating systems
- described the function of RAM
- described and used communications hardware.

Described media storage devices: (1.2)

- hard drives
- optical drives
- bulk magnetic storage
- tape drives
- file servers.

Used media storage devices: (1.2)

- hard drives.

Described and used Input/Output connections and remote devices: (1.3)

All apprentice's explanations, descriptions, and activities complied with current legislation, including the Canadian Electrical Code, WorkSafeBC or other applicable regulations, and industry practice.

Assessor Name (Printed) \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Task 2: Prepare, file and distribute documents using common office software applications.**

What is your level of keyboarding skill? Include level of typing skill and where you can access resources to improve keyboard skill. (2.1)

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## ***Demonstrate and apply knowledge of PC Hardware and Software***

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### **Assessor Observation – Preparing, filing and distributing documents using common office software applications**

(To be completed by the assessor after the apprentice has performed the tasks competently in the workplace)

I confirm I have seen the apprentice perform the following task to the standard outlined and attest to his or her competence. *Tick the boxes you have observed*

Entered data correctly with the keyboard: (2.1)

- keyboarding skills were demonstrated
- basic touch typing techniques were demonstrated
- apprentice located appropriate resources and/or support for learning keyboarding skills.

Created and retrieved files using software appropriate to the task at hand: (2.2)

- operating systems were navigated
- applications were used
- electronic files were organized/managed.

Created a basic word processed document, using common application software and following word processing principles, to meet company standards. (2.3)

Created and populated a simple spreadsheet using simple formulas and following spreadsheet function principles. (2.4)

Sent and received e-mail using e-mail software, following company protocols. (2.5)

Managed an electronic calendar using scheduling applications, following company protocols. (2.6)

Created a simple database file following principles of database function. (2.7)

Used a web browser to research and locate information. (2.8)

All apprentice's explanations, descriptions, and activities complied with current legislation, including the Canadian Electrical Code, WorkSafeBC or other applicable regulations, and industry practice.

Assessor Name (Printed) \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Demonstrate and apply knowledge of PC Hardware and Software**

**Additional Supporting Evidence**

(To be completed by the apprentice and signed by the assessor)  
Demonstrate and apply knowledge of PC hardware and software

Describe what workplace records are available to verify you performed this work.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Describe where a moderator can locate these records to verify your work when doing a quality check.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Name and describe the CEC rules required when you performed these tasks.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Which manufacturer guidelines were followed when doing these tasks?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Apprentice Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Additional Questions**

Attach written notes of any additional questions asked of the apprentice and answers given. Ensure they are signed and dated by both the apprentice and assessor.

**Task verification**

Obtain confirmation from a third party who will verify you have carried out the tasks as assigned to the standard described.

Name of task verifier: \_\_\_\_\_

Position in the company: \_\_\_\_\_

Signature of task verifier: \_\_\_\_\_

Date: \_\_\_\_\_

Apprentice Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## **Demonstrate knowledge of workplace communication standards**

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### **Specification**

People credited with this standard are able to:

**Describe techniques to ensure technical communication is understood and acted upon accurately.**

#### **Credit 1**

#### **Quality Assurance**

Any assessor assessing against this competency standard must be competent in the topic and have completed the assessor registration competency.

#### **Definitions**

*Active listening* – the skills of listening. These skills may include but are not limited to – questioning, reading and responding to body language, use of silence, paraphrasing, reflecting feelings, summarizing.

#### **Task 1**

Demonstrate knowledge of technical documents and explain the need to correctly act on the content.

#### **Task 2**

Demonstrate knowledge of techniques to ensure clear communication is achieved, and its importance.

### **Assessment**

With training and guidance you will acquire the skills and knowledge to enable you to competently demonstrate completion of these tasks to your assessor. You must keep a record, on the diary pages included, of the details of the work done when completing the tasks to help the assessor see the experience you have gained prior to the assessment decision being made.

### **Evidence**

Assessment of this standard requires the following types of evidence be gathered by you and presented by you to your assessor:

- Completed apprentice work diary for each task – add more pages if you need to
- Observation by the assessor of you completing the relevant tasks
- Task verification – another person who has observed you completing the tasks to the appropriate standard
- Copies of work records, where applicable, or reference to work records to show when the tasks were completed.

The specific evidence requirements you must present are listed on the following pages.









**Demonstrate knowledge of workplace communication standards**

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**Assessor Observation**

(To be completed by the assessor after the apprentice has performed the tasks competently in the workplace)

I confirm I have seen the apprentice perform the following task to the standard outlined and attest to his or her competence. *Tick the boxes you have observed.*

- Described manufacturer and company specifications and technical documentation (1.1)
- work orders
  - maintenance records
  - company logs
  - project plans
- Demonstrate knowledge of suiting content and tone of speech to the listener. (2.1)
- Content and tone must include
- vocabulary
  - non-verbal communication
  - voice modulation and projection.
- Demonstrate knowledge of techniques for checking understanding. (2.2)
- active listening
  - paraphrasing.
- Describe the hazards to personnel and equipment when communication breaks down in terms of safety and liability. (2.3)
- All apprentice's explanations, descriptions, and activities complied with current legislation, including the Canadian Electrical Code, WorkSafeBC or other applicable regulations, and industry practice.

Assessor Name (Printed) \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

***Demonstrate knowledge of workplace communication standards***

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**Additional Supporting Evidence**

(To be completed by the apprentice and signed by the assessor)

Describe what workplace records are available to verify you performed this work.

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Describe where a moderator can locate these records to verify your work when doing a quality check.

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Name and describe the CEC rules required when you performed these tasks.

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Which manufacturer guidelines were followed when doing these tasks?

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Apprentice Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Additional Questions**

Attach written notes of any additional questions asked of the apprentice and answers given. Ensure they are signed and dated by both the apprentice and assessor.

**Task verification**

Obtain confirmation from a third party who will verify you have carried out the tasks as assigned to the standard described.

Name of task verifier: \_\_\_\_\_

Position in the company: \_\_\_\_\_

Signature of task verifier: \_\_\_\_\_

Date: \_\_\_\_\_

Apprentice Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Purpose**

Describe the principals of working safely while respecting the duties and responsibilities of other personnel, while cooperating to achieve common goals.

**Credit 1**

**Quality Assurance**

Any assessor assessing against this competency standard must be competent in the topic and have completed the assessor registration competency.

**Task 1**

Describe the elements of professionalism and give examples of the effects a good professional attitude can have on job or company performance.

**Assessment**

With training and guidance you will acquire the skills and knowledge to enable you to competently demonstrate completion of these tasks to your assessor. You must keep a record, on the diary pages included, of the details of the work done when completing the tasks to help the assessor see the experience you have gained prior to the assessment decision being made.

**Evidence**

Assessment of this standard requires the following types of evidence be gathered by you and presented by you to your assessor:

- Completed apprentice work diary for each task – add more pages if you need to
- Observation by the assessor of you completing the relevant tasks
- Task verification – another person who has observed you completing the tasks to the appropriate standard
- Copies of work records, where applicable, or reference to work records to show when the tasks were completed.

The specific evidence requirements you must present are listed on the following pages.

**Task 1**

Describe the elements of professionalism and give examples of the effects a good professional attitude can have on job or company performance.

**Performance standards**

1.1 Describe personal attributes associated with professionalism.

Must include

- responsibility
- reliability
- appearance
- self awareness
- open and honest communications.

1.2 Describe the importance of clear and timely communications.

Must include

- communications between personnel on the worksite and supervisory staff
- privileged information
- feedback
- courtesy and timeliness.

1.3 Describe the benefits of maintaining a clean and ordered work environment.

Must include

- safety
- efficiency
- morale
- professional presentation.

1.4 Describe opportunities for advancement in the profession and the experience or training required.

Must include

- skill development and training
- other certification levels
- career paths.









**Demonstrate knowledge of professional behaviour**

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**Assessor Observation**

(To be completed by the assessor after the apprentice has performed the tasks competently in the workplace)

I confirm I have seen the apprentice perform the following task to the standard outlined and attest to his or her competence. *Tick the boxes you have observed.*

1.1 Describe personal attributes associated with professionalism.

- Must include
- responsibility
- reliability
- appearance
- self awareness
- open and honest communications.

1.2 Describe the importance of clear and timely communications.

- Must include
- communications between personnel on the worksite and supervisory staff
  - privileged information
  - feedback
  - courtesy and timeliness.

1.3 Describe the benefits of maintaining a clean and ordered work environment.

- Must include
- safety
  - efficiency
  - morale
  - professional presentation.

1.4 Describe opportunities for advancement in the profession and the experience or training required.

- Must include
- skill development and training
  - other certification levels
  - career paths.

All apprentice's explanations, descriptions, and activities complied with current legislation, including the Canadian Electrical Code, WorkSafeBC or other applicable regulations, and industry practice.

Assessor Name (Printed) \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

***Demonstrate knowledge of professional behaviour***

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**Additional Supporting Evidence**

(To be completed by the apprentice and signed by the assessor)

Describe what workplace records are available to verify you performed this work.

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Describe where a moderator can locate these records to verify your work when doing a quality check.

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Name and describe the CEC rules required when you performed these tasks.

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Which manufacturer guidelines were followed when doing these tasks?

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Apprentice Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Additional Questions**

Attach written notes of any additional questions asked of the apprentice and answers given. Ensure they are signed and dated by both the apprentice and assessor.

**Task verification**

Obtain confirmation from a third party who will verify you have carried out the tasks as assigned to the standard described.

Name of task verifier: \_\_\_\_\_

Position in the company: \_\_\_\_\_

Signature of task verifier: \_\_\_\_\_

Date: \_\_\_\_\_

Apprentice Signature: \_\_\_\_\_

Date: \_\_\_\_\_