



**Skilled
Trades**
Ontario

**Métiers
spécialisés**
Ontario

Apprenticeship
Training Standard
Logbook

Facilities Technician

255B

2015

Apprenticeship Training Standard

The Apprenticeship Training Standard or herein after referred to as “Logbook” is a document issued to Apprentices who sign a Registered Training Agreement in the Province of Ontario as an official record of training. It is to be used by the Apprentice and Sponsor/trainer to guide the process of skills development in a particular trade.

Training As An Apprentice

- ✓ Ensure you, your sponsor, and your witness sign a Training Agreement with the Ministry of Labour, Immigration, Training and Skills Development. Once it is registered, you will receive a copy of the registered Training Agreement for your records.
- ✓ Notify the local Service Delivery Office **immediately** if any changes to contact information or training agreement, especially if you change sponsors.
- ✓ Review the Logbook regularly with your trainer and sponsor to discuss your progress, ask questions, seek feedback and have the trainer **sign-off on competencies**
- ✓ Keep an accurate record of the hours you work.
- ✓ Attend classroom training when it is offered.
- ✓ Apply for the financial incentives for which you are eligible.



Completing Your Logbook

- ✓ **Complete the Sponsor Record Form** – A form must be completed for each Sponsor/Trainer used during your apprenticeship.
- ✓ **Confirm Skill Sign-off is Complete**
 - **You and your trainer** sign-off each required skill to confirm that you have demonstrated competency in that skill.
 - Shaded boxes in your Logbook mean the skills are optional and do not have to be confirmed by your trainer or sponsor. However, you are encouraged to complete them as part of your training.
- ✓ **Confirm Skill Set Sign-off is Complete**
 - After you and your trainer have signed-off all the required skills in a skill set, your sponsor signs the signature box on the form in **Appendix C – “Skill Set Completion for Sponsors”** to confirm your completion of all competencies within each skill set.

This document is the property of the apprentice named inside and represents the official record of your training. For information about completing your apprenticeship, see inside of back cover.



Apprentice Name: _____

Address: _____

Phone Number: _____

Email Address: _____

Trade: _____

Training Agreement # (for Compulsory and Non-Compulsory trades):

STO Account No. (for Compulsory trades only):

This document is the property of the Apprentice named herein and represents the official record of their training.

If you have questions about the use of this Logbook or about your Apprenticeship program, contact your local Service Delivery Office (see Appendix D in this book) or the Employment Ontario hotline at: 1-800-387-5656.

Apprenticeship Pathway to a Certificate of Qualification

Phase 1: Registration

Submit Application for Apprenticeship Training through the on-line portal or to local Service Delivery Office

For on-line portal, please follow instructions for registration. You will need to create a *My Ontario* account to access online services.

Training agreement signed and registered by both apprentice and sponsor

Access your Apprenticeship Training Standard Logbook**
skilledtradesontario.ca/about-trades/trades-information

** This is the official record of your training progress. You are responsible for keeping it up-to-date.

Complete on-the-job training

Demonstrate and receive sign-off on the competencies/skills in your Apprenticeship Training Standard Logbook

Complete in-school training

Attend and complete the in-class training set out in the Curriculum Training Standard

Apprentices eligible to apply for apprenticeship incentive grants (Red Seal trades) and loans.

Review and finalize your logbook with your sponsor

Submit proof of apprenticeship completion via email, in-person or digital portal

Your Apprenticeship Training Standard Logbook details completion requirements. Submit the following:

- completed Apprenticeship Training Standard Logbook with signatures
- proof of hours

Certificate of Apprenticeship is issued

Trades without examination

CofA is the final step of the program

Trades with examination (compulsory and non-compulsory trades)*

Provisional Certificate of Qualification issued for a 12 month term

To prepare for the CofQ examination download the Provincial and/or Red Seal Exam preparation guides.

Make payment for your Certificate of Qualification examination

Call to make a payment (647-847-3000 or 1-855-299-0028)

Schedule a date to write your Examination

To schedule your examination, contact your local Service Delivery Office.

Pass Certificate of Qualification examination

Apprentices eligible to apply for Apprenticeship Completion Grant (Red Seal trades) or Apprentice Completion Bonus (non-Red Seal)

Certificate of Qualification is issued

Upon completion, Sponsors may be eligible for Apprenticeship grants, incentives, bonuses or tax credits

Phase 2: Apprenticeship

Phase 3: Certification

* For a list of trades subject to a certification examination, visit: skilledtradesontario.ca

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Please Note: This Standard has been revised to reflect the visual identity of Skilled Trades Ontario (STO) which replaced the Ontario College of Trades on January 1, 2022. The content of this Standard may refer to the former organization; however, all trade specific information or content remains relevant and accurate based on the original date of publishing. Please refer to STO’s website: skilledtradesontario.ca for the most accurate and up to date information.

For information about BOSTA and its regulations, please visit [Building Opportunities in the Skilled Trades Act, 2021 \(BOSTA\)](#). Any updates to this publication are available online; to download this document in PDF format, please follow the link: Skilled Trades Ontario.ca.

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Foreword: Purpose, Terms and Conditions of the registered Training Agreement

Purpose:

- Prior to starting official apprenticeship activities, the apprentice, sponsor and a witness are required to sign a Training Agreement.
- The Training Agreement that you have signed is an important legal document that outlines your responsibilities as an apprentice and the responsibilities of your sponsor.
- Once registered, this training agreement (or contract) marks the start of your formal agreement between the apprentice, the sponsor and the Ministry.
- For compulsory trades, the apprenticeship registration document must be accessible when working.

The Apprentice agrees:

- **To inform the local Service Delivery Office of any change to your contact information or change in sponsor within 7 days;**
- To follow the Sponsor's and Trainer's lawful instructions and make every effort to acquire the skills identified in the Logbook for the Trade which is part of the apprenticeship program established by Skilled Trades Ontario for the trade;
- To obtain written verification from the Sponsor and the Trainer(s) that the requirements in the Logbook for the trade have been met.
- When you receive an "Offer of Classroom Training", confirm your attendance by following the instructions in the offer. Failure to do so may result in losing your opportunity to attend school which delays the completion of your apprenticeship.

The Sponsor agrees:

- To ensure that the Apprentice is provided with the training required as part of the apprenticeship program established by Skilled Trades Ontario for this trade;
- To review the progress of training with the Apprentice, and with the Trainer(s) where the Sponsor and the Trainer are not the same party.
- Release your apprentice from work to attend in-school training without penalty to the apprentice.
- To maintain the journeyperson/apprentice ratio for your trade, if applicable.
- To monitor their apprentice(s) progress
- To ensure that the Trainer(s) verifies, in writing, when each skill identified in the Logbook for the trade has been successfully completed by the Apprentice;
- To contact the Ministry should any changes in your capacity to train, your contact information, or your apprentice's status in the program change.

Trade Specific Resources and Links

Trade Specific Resource	Link
Red Seal Program	red-seal.ca
Apprenticeship in Ontario	ontario.ca/page/apprenticeship-ontario
Employment Ontario	employmentontario.ca
Service Canada	servicecanada.gc.ca
<i>Building Opportunities in the Skilled Trades Act, 2021</i>	Building Opportunities in the Skilled Trades Act, 2021, S.O. 2021, c. 28 - Bill 288 (ontario.ca)
Ministry of Labour, Immigration, Training and Skills Development	Ministry of Labour, Immigration, Training and Skills Development ontario.ca
Exam Preparation Guide	Exam Resources – Skilled Trades Ontario
Skills Zone (Ontario Skills Passport)	http://www.skillszone.ca/
Building Owners and Management Association (BOMA)	BOMA Canada – English

**Please note, all website addresses are current at time of printing*

Methodology-Standard Development

A standard is developed with a broad group of trade representatives who form the initial working group. This includes subject matter experts/ tradespeople/ instructors and employers from a cross section of the sector/industry, with varying years of work experience in the field. The working group reviews, develops and recommends revision to the content of the standard. Their role also involves harmonizing and updating other supporting content for the product.

An essential part of the standard development is the validation process. This is the opportunity to have a broader representation of the sector and provide feedback on the content of draft standard. This process is conducted in various ways and may include sending out a survey or the draft document (or both) directly to the sector. The comments received are reviewed by the working group and revisions are made as required based on a consensus model.

Introduction to the Logbook

This “on-the job” Logbook is the training standard for Facilities Technician 255B and was developed by Skilled Trades Ontario in consultation with representatives from industry. It identifies all the skills associated with and required to learn the trade.

The Logbook is divided into skill sets, which are further divided into skills. These skill sets and skills are written in statements that describe what the Apprentice must perform and to what standard, in order to be considered competent in that skill.

The successful performance of these skills is tracked in the Logbook. Once achieved, this skills’ sign-off, along with the completion of in-school program requirements or equivalent, is how the apprenticeship program is completed and apprentices receive a Certificate of Apprenticeship.

The Sponsor/trainer and Apprentice are required to sign-off and date each skill after the Apprentice has demonstrated proficiency in these skills. However, if a skill is shaded, it is optional and does not need to be signed-off, though it has been defined as a part of the scope of practice for the trade.

All practices described in this standard must be performed by the apprentice according to the specific criteria identified. In general, the standard of performance for this trade is to be performed according to all applicable jurisdictional codes and standards and all health and safety standards must be respected and observed.

All skills within the Apprenticeship Training Standard are to be performed, as applicable, according to and in compliance with the following:

- Occupational Health and Safety Legislation and Regulations;
- Other applicable legislation, regulation, codes and standards;
- Industry best practices;
- Company policies and procedures.

The information presented in this standard is, to the best of our knowledge, current at time of printing and is intended for general application. Please refer to the Skilled Trades Ontario website for the most accurate and up-to-date information: skilledtradesontario.ca

Roles and Responsibilities

Under the [Building Opportunities in the Skilled Trades Act, 2021 \(BOSTA\)](#)

Skilled Trades Ontario (STO) is responsible for:

- Establishing and maintaining qualifications;
- Establishing Apprenticeship Programs and other training programs including training Standards, curriculum standards and certifying examinations;
- Issuing certificates for the purposes of this Act such as Certificates of Qualification;
- Maintaining a Public Registry for compulsory trades skilledtradesontario.ca/public-register/;
- Determining whether the experience and qualifications obtained by applicants for a certificate of qualification who do not complete an apprenticeship are equivalent to those received through completing an apprenticeship (Trade Equivalency Assessments)
- Promoting the skilled trades and conducting research.
- Conducting research and evaluate whether a trade should be prescribed as a trade for the purposes of this Act and to make recommendations on these matters to the Minister.

Ministry of Labour, Immigration, Training and Skills Development (MLITSD)

is responsible for:

- Classifying trades as compulsory trades;
- Prescribing scopes of practice for trades;
- Approving which persons may provide in-class training for apprenticeship programs (TDAs);
- Registering Training Agreements;
- Providing those who successfully complete an apprenticeship program with a certificate of apprenticeship (CofA);
- Administering examinations, including certifying examinations;
- Promoting the skilled trades and conducting research;
- Exercising such other powers and perform such other duties and functions as are provided for in this Act or the regulations.

For any matter related to your registered Training Agreement or completing your apprenticeship, you must contact your local Service Delivery Office.

Roles and Responsibilities of the Apprentice

An Apprentice is an individual who has entered into a registered Training Agreement (refer to Foreword: *“Purpose, Terms and Conditions of TA” page 1*) with a Sponsor to receive training in a trade as part of an apprenticeship program established by Skilled Trades Ontario. As an Apprentice, you have certain roles and responsibilities to follow throughout your apprenticeship training:

1. As an Apprentice, you signed the Training Agreement and have entered into a contract with the Ministry of Labour, Immigration, Training and Skills Development and your Sponsor.
2. If you are registered as an Apprentice in a compulsory trade, your name will automatically appear in the Skilled Trades Ontario Public Register.
3. You are responsible for informing the staff at your local Service Delivery Office regarding changes to the following:
 - Your Sponsor’s address;
 - Your name and address; and/or,
 - Your Sponsor, including starting employment with a new Sponsor
4. As an Apprentice, you are responsible for completing skills or skill sets in this Logbook (as detailed in the *“Eligibility for Apprenticeship Program Completion”* section of this document) and ensuring that they are dated and signed by both you and your Trainer.
5. Once you have demonstrated competency in all the mandatory skills and received a sign off on each skill by your sponsor/trainer, you must have the Skill Set Completion Form completed and signed by your current Sponsor.
6. Submit your Logbook to your local Service Delivery Office.
7. Present your Apprentice Completion Form (Please refer to Appendix B), along with your authorized Logbook to your local Service Delivery Office.

Roles and Responsibilities of Sponsors and Trainers

Sponsors are responsible for ensuring all terms are met as per the registered Training Agreement. They are named on the registered Training Agreement as the entity responsible for ensuring Apprentices receive the training required as part of an apprenticeship program. As a signatory to this agreement, they are designated as the 'Signing Authority' for the Apprentice's Skill Set Completion Form and are required to attest to successful achievement by signing the appropriate box at the completion of each skill set. Some sponsors may also act as the Trainer.

A **Trainer** is an individual who oversees the performance of a task and sets the workplace expectations and practices for the Apprentice.

In compulsory trades, a Trainer must hold a valid Certificate of Qualification and be registered with Skilled Trades Ontario.

In non-compulsory trades, a Trainer is an individual who holds one of the following:

- A Certificate of Qualification;
- A Certificate of Apprenticeship in the trade; or,
- Has completed both the workplace-based training (competencies and/or hours as applicable) and classroom training components of the trade's apprenticeship program; or,
- Has workplace experience equivalent to the apprenticeship program) and has the skills outlined in the Logbook.

Competency means being able to perform to the required standard (please refer to "*Introduction to the Logbook*"). Trainers/Sponsors and Apprentices are required to sign-off and date the skills in the Logbook following each successful acquisition. The Logbook forms a record of this achievement.

The Trainer must provide their signature based on their assessment and professional judgment that the apprentice is competent in the skills described above. The Trainer's signature is not a general warranty or guarantee of the apprentice's future conduct.

Sponsors participating in this training program will be designated as the Signing Authority and are required to attest to successful achievement by signing the appropriate box included at the end of each skill set.

Health and Safety

Safe working procedures and conditions, accident prevention and the preservation of health are of primary importance for apprenticeship programs in Ontario. These responsibilities are shared and require the joint efforts of government, sponsors, employers, supervisors, workers, apprentices and the public to achieve the goal of making Ontario's workplaces safe and healthy.

The [Occupational Health and Safety Act](#) (OHSA) provides us with the legal framework and the tools to do this. It sets out the rights and duties of all parties in the workplace, placing ultimate responsibility on the employer for the health and safety of workers (in this case apprentices) by ensuring procedures, controls, and training are established for dealing with workplace hazards. Therefore, it is imperative that all parties become aware of circumstances that may lead to injury, illness or harm. Safe learning experiences and environments can be created by controlling the variables and behaviours that may contribute to or cause an accident, injury or illness.

A sponsor who is not the employer is reminded that the employer has legal responsibilities respecting health and safety over the apprentice who is their worker. The sponsor should encourage safe work habits and adherence to the employer's occupational health and safety requirements for the workplace.

It is generally recognized that a positive attitude about safety in partnership with health and safety competency contributes to an accident-free environment. Everyone will benefit as a result of a healthy attitude towards the prevention of accidents.

Workers and apprentices can be exposed to a multitude of hazards and, therefore, should be familiar with the Occupational Health and Safety Act and regulations.

The Internal Responsibility System:

One of the primary purposes of the Occupational Health and Safety Act (OHSA) is to facilitate a strong Internal Responsibility System (IRS) in the workplace. To this end, the OHSA lays out the duties of employers, supervisors, workers, apprentices, constructors and workplace owners.

Workplace parties' compliance with their respective statutory duties is essential to the establishment of a strong IRS in the workplace.

Simply put, the IRS means that everyone in the workplace has a role to play in keeping workplaces safe and healthy. Workers and apprentices in the workplace who see a health and safety problem such as a hazard or contravention of the OHSA in the workplace have a statutory duty to report the situation to the employer or a supervisor. Employers and supervisors are, in turn, required to address those situations and acquaint workers with any hazard in the work that they do.

The IRS helps support a safe and healthy workplace. In addition to the workplace parties' compliance with their legal duties, the IRS is further supported by well-defined health and safety policies and programs, including the design, control, monitoring and supervision of the work being performed.

Roles and Responsibilities under the Occupational Health and Safety Act

Employer's Responsibilities include but are not limited to the following:

- Instruct, inform and supervise workers and apprentices to protect their health and safety.
- Appoint competent persons as supervisors.
- Inform a worker, apprentice, or a person in authority, about any hazard in the workplace and train them in the handling, storage, use, disposal and transport of any equipment, substances, tools, material, etc.
- Take every precaution reasonable in the circumstances for the protection of a worker/apprentice.
- In workplaces in which more than five workers are regularly employed, prepare and post a written occupational health and safety policy and set up and maintain a program to implement it.
- Prepare and post policies with respect to workplace violence and workplace harassment and develop programs supporting workplace harassment and workplace violence policies.
- Ensure knowledge of applicable legislative, regulatory, codes and standards so requirements to be followed are clear to all workers/apprentices.

Trainer/Supervisor Responsibilities include but are not limited to the following:

- Ensure that a worker or apprentice works in compliance with the Act and regulations.
- Ensure that any equipment, protective device or clothing required by the employer is used or worn by the worker or apprentice.
- Advise a worker/apprentice of any potential or actual health or safety dangers known by the supervisor.
- Take every precaution reasonable in the circumstances for the protection of workers.

Worker/Apprentice Responsibilities include but are not limited to the following:

- Work in compliance with the Act and regulations.
- Use or wear any equipment, protective devices or clothing required by the employer.
- Report to the employer or supervisor any known missing or defective equipment or protective device that may endanger the worker or another worker.
- Report any hazard or contravention of the Act or regulations to the employer or supervisor.
- Not remove or make ineffective any protective device required by the employer or by the regulations.
- Not use or operate any equipment or work in a way that may endanger any worker.

The Three Rights of Workers/Apprentices

The OHSA gives workers and apprentices three important rights:

1. The right to know about hazards in their work and get information, supervision and instruction to protect their health and safety on the job.
2. The right to participate in identifying and solving workplace health and safety problems either through a health and safety representative or a worker member of a joint health and safety committee.
3. The right to refuse work that they believe is dangerous to their health and safety or that of any other worker in the workplace.

Ministry of Labour, Immigration, Training and Skills Development

The Ministry of Labour, Immigration, Training and Skills Development conducts periodic inspections of workplaces to ensure that safety acts and regulations are being followed. Please direct any questions to the Occupational Health and Safety Contact Centre at 1-877-202-0008.

Apprenticeship Program Summary/Guidelines

Scope of Practice

The Scope of Practice for the trade of Facilities Technician is set out in section 52 of Ontario Regulation 875/21 under BOSTA and reads as follows:

1. Performing preventive maintenance.
2. Operating, monitoring, and performing routine maintenance on air conditioning and ventilation systems.
3. Operating, troubleshooting, and performing routine maintenance on air compressors.
4. Operating, troubleshooting, and performing routine maintenance on chillers and refrigeration systems.
5. Operating, monitoring, and performing routine maintenance on water treatment systems.
6. Inspecting and verifying fire suppression and sprinkler systems.
7. Inspecting, testing, and verifying emergency power and lighting systems.
8. Operating, monitoring, and performing routine maintenance on heating systems.
9. Operating, troubleshooting, and performing routine maintenance on pumps and pumping systems.
10. Operating, monitoring, and performing routine maintenance on low pressure boilers.
11. Operating electrical systems.
12. Performing routine maintenance on fume hoods.
13. Operating and performing routine maintenance on control systems and instrumentation.
14. Inspecting and monitoring plumbing systems.
15. Monitoring and analysing utility consumption.

*While the Logbook draws on the scope of practice regulation (Section 52 of Ontario Regulation 875/21 under BOSTA). The Logbook does not purport to add to or modify the scope of practice as provided in regulation. *

Program Guidelines

On-the-Job Training Duration

Industry has identified 7280 hours as the benchmark necessary for any Apprentice to become competent in the skills required. There may be circumstances in which the duration varies from this guideline.

In-Class Training Duration

Industry has identified 720 hours of in-school training as the duration necessary for an Apprentice to complete the in-school curriculum for this program.

Total Training Hours

8000 hours

Journeyperson to Apprentice Ratio

Ratios in Regulation:

If a trade has been prescribed as being subject to an apprentice to journeyperson ratio, the number of apprentices who may be sponsored or employed by a person in the trade in relation to the number of journeypersons employed or otherwise engaged by the person in the trade **shall not exceed one apprentice for each journeyperson**; Further information can be found in the Apprenticeship section of the Government of Ontario website at [ontario.ca/page/hire-apprentice](https://www.ontario.ca/page/hire-apprentice)

Industry Recommended Ratios:

While some of the trades regulated under BOSTA are subject to Journeyperson to Apprentice ratios set out in regulation, this trade is not one of them. Instead, **industry has recommended a Journeyperson to Apprentice ratio guideline of 1 Journeyperson (or individual who is deemed equivalent to a journeyperson) to 1 Apprentice** as the ratio necessary for an Apprentice to be properly trained on the job in this program.

Program Requirements

Compulsory and Non-compulsory Classification

Regulations *Building Opportunities in the Skilled Trades Act, 2021* and the classification of each trade as either “compulsory” or non-compulsory.” This trade is non-compulsory.

It is the responsibility of an Apprentice to maintain a training record in the form of a Logbook. The Sponsor and Trainer are required to sign-off when competencies in the trade are achieved.

Skills for Success Summary

Skills for Success are needed in a quickly changing world for work, learning and life. They are foundational for building other skills and important for effective social interaction. Everyone benefits from having these skills as they help individuals get a job, progress at their current job and change jobs. They also help individuals become active members of their community and succeed in learning.

Through extensive research and consultations, the Government of Canada launched the new Skills for Success model renewing the previous Essential Skills framework to better reflect the needs of the current and future labour market.

The occupational specific Essential Skills profiles are available online. These will be updated over time to align with the new Skills for Success model found here: [Skills for Success model](#)

Standard of Performance

In general, the standard of performance for this trade are to be performed, as applicable, according to and in compliance with the following:

Industry Safety Standards which are based upon:

- Occupational Health and Safety Legislation and Regulations;
- Jurisdictional legislation and regulations, codes and standards (municipal bylaws etc.)
- Company policies and procedures
- All applicable manufacturers specifications and engineering specifications

Other Suggested or Required Certification(s) and Training

While an apprentice receives health, safety and occupational specific training and/or certification in a variety of fields during their apprenticeship, it is important to be aware that other occupational health and safety training and certification renewal or updating may also be required during their career before performing new types of work.

Training the Apprentice - Tips for Apprentices, Sponsors and Trainers

Tips for Apprentices

Remember, it takes time to learn. The following is a list of additional tips and tools to help make the most of your apprenticeship training:

- Practice safe work procedures early to create good habits;
- Use your Logbook as a journal to keep track of the skills you have achieved;
- Review your training plan with your Training Consultant, Trainer, or Sponsor;
- Discuss your training needs with your Trainer and/or Sponsor;
- Listen to the suggestions of your Trainer;
- Ask your Trainer questions if you are unsure of any skill you need to perform or any tools or equipment you need to use to perform your duties;
- Show enthusiasm and develop good work habits; and,
- Upon demonstration of competency, ensure that you and your Trainer sign-off the individual skills.

To get the most from this mentoring experience, request exposure to the full scope of the trade; meet regularly with your Sponsor/Trainer to discuss your progress, ask questions and seek feedback.

Tips for Sponsors

- Select Trainers with good communication skills and who work well with others;
- Ensure that the Apprentice always works under the direction of or has access to a qualified Trainer;
- Encourage Trainers to take upgrading courses (e.g. Train the Trainer, Mentor, Coach, etc.);
- Set out clear expectations and involve both the Apprentice and Trainer in developing the training plan
- Encourage safe work habits;
- Allow time for the Trainer to train and demonstrate skills to the Apprentice;
- Provide opportunities and time for the Apprentice to learn the trade;
- Ensure that the Apprentice receives the varied on-the-job trade training experience outlined in this document;
- Recognize good performance;
- Observe frequently;
- Provide constructive feedback and conduct regular performance reviews involving the Apprentice and Trainer;
- Use the Logbook as a monitoring tool and a part of regular performance evaluations; and,
- Complete the Skill Set Completion Form once the Apprentice has demonstrated competency in the skills.

- The detailed content listed for each skill is not intended to represent an inclusive list; rather, it is included to illustrate the intended direction for the skill acquisition.

Tips for Trainers

Trainers are responsible for ensuring the Apprentice is developing the skills outlined in this document. Here is a list of tips and tools to help Trainers in their supervision of Apprentices:

- Demonstrate model safe work habits;
- Provide opportunities and time for the Apprentice to learn the trade;
- Treat Apprentices fairly and with respect;
- Review the Logbook with the Apprentice and develop a training plan;
- Set out clear expectations and recognize good performance;
- Expose Apprentices to the full scope of the trade by providing training on the skills outlined in this document;
- Encourage and respond to all questions;
- Be patient;
- Explain, show and demonstrate the skill;
- **Meet regularly with the Apprentice to discuss the apprentice's progress**
- Provide continuous feedback;
- Sign-off skills when your Apprentice demonstrates competency, and,
- Use the Logbook as a guide to evaluate competence in each skill area. By using the Logbook, Trainers will be able to guide the process to and assist Apprentices to develop skills outlined in this document.

The best mentoring experience is when an Apprentice is given as much training/exposure to the full scope of the trade as possible. If this is not possible, help them to determine other ways this may be possible.

Notice of Collection of Personal Information

1. At any time during your apprenticeship training, you may be required to show this Logbook to the local Service Delivery Office. You will be required to submit the signed Apprenticeship Completion form to the Service Delivery Office in order to complete your program. The Service Delivery Office will use your personal information to administer and finance Ontario's apprenticeship training system, including confirming your completion and issuing your Certificate of Apprenticeship.
2. The Service Delivery Office will disclose information about your program completion and your Certificate of Apprenticeship to Skilled Trades Ontario, as it is necessary for Skilled Trades Ontario to carry out its responsibilities.
3. Your personal information is collected, used and disclosed by the Ministry of Labour, Immigration, Training and Skills Development under the authority of the *Building Opportunities in the Skilled Trades Act, 2021 (BOSTA)*.
4. Questions about the collection, use and disclosure of your personal information by the Ministry may be addressed to the:

Manager, Employment Ontario Contact Centre
Ministry of Labour, Immigration, Training and Skills Development
33 Bloor St. E, 2nd floor, Toronto, Ontario M7A 2S3
Toll-free: 1-800-387-5656; Toronto: 416-326-5656
TTY: 1-866-533-6339 or 416-325-4084

9065.0 Demonstrate Safe Working Practices and Procedures

General Performance Objectives

Demonstrating safe working practices and procedures by complying with safety directives provided in legislation and regulations; wearing and maintaining personal protective equipment; maintaining a safe workplace; practicing fire safety procedures; practicing security procedures; taking corrective action against workplace hazards; working within safe physical limits; performing pre-operational checks on elevated work platforms and material-handling equipment for proper conditions and operations; working on equipment in elevated positions; and, applying lockout and tagout procedures.

Skills

9065.01 Comply with safety directives provided in legislation and regulations, including the Occupational Health and Safety Act (OHSA, Workers' Compensation Act (WCA), Infrastructure Health and Safety Association (IHSA), the Environmental Protection Act (EPA), the Boilers and Pressure Vessels Regulation (Ontario Regulation 220/01) under the Technical Standards and Safety Authority (TSSA), the Dangerous Goods Transportation Act (DGTA), the Workplace Hazardous Materials Information System (WHMIS), the Ontario Building Code, the Accessibility Ontario Disability Act (AODA), the Ontario Fire Code (OFC), and the Ontario Electrical Code, and according to company policy on construction, industrial, commercial, and residential sites by identifying appropriate legislation and applying it to work procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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9065.02 **Wear and maintain personal protective equipment**, such as eye, ear, hand, respiratory, skin, foot protection and body ensuring that correct fit and optimum protection is provided to the wearer for the specific task in accordance with manufacturers' instructions and as required by OHSA, IHSA, CSA Z462 Canadian Arc Flash standard, regulations and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9065.03 **Maintain a safe workplace**, by ensuring the workplace is clean, organized, and free of obstructions; the location of first-aid equipment, materials and supplies are identified; hazardous and toxic materials such as lead, asbestos, mold, microbiological agents, mercury, gases, acids, solvents, paints, thinners, and cleaners are managed and protective measures are erected in compliance with OHSA, IHSA, WHMIS, EPA, DGTA and company policy and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9065.04 **Practice fire safety procedures**, such as determining the potential for fire posed by the work being performed; identifying the location of a fire; selecting and operating appropriate fire-extinguishing equipment for specific fire types; activating alarms; recognizing and responding to audio-visual alarms, ensure fire separations are maintained and following the prescribed fire evacuation plan, in accordance with the OFC and company procedures and directives.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9065.05 Practice security procedures, such as determining the potential for security risks in the workplace and the work being performed; identify additional risks such as unattended bags, unsecured doors and other points of access, and monitor security by following security protocols, in accordance with company procedures and directives.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9065.06 Take corrective action against workplace hazards, such as noxious fumes and dust, high-intensity light, fires, elevated worksites, suspended loads, poor lighting, extreme temperatures, inadequate ventilation, confined spaces, untidy worksites, and uncontrolled energy sources, so that the potential for personal injury and damage to equipment and the environment is minimized, in accordance with applicable manufacturers' instructions, government regulations, and company policies.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9065.07 **Work within safe physical limits**, by applying correct body mechanics when bending, lifting, transporting, or climbing with heavy loads, in accordance with OHSA, IHSA and company procedures and policy so that probability of personal injury is minimized.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9065.08 **Perform pre-operational checks on elevated work platforms and material- handling equipment for proper condition and operation**, by checking associated equipment and personal protection devices; checking the prescribed hoisting procedures; ensuring the work area is free of obstruction and hazards; ensuring that sufficient clearance and headroom are available; and ensuring that all equipment is secure, correctly positioned, clean and free of defects, and stored in a designated location when not in use, in accordance with the manufacturers' specifications and instructions and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9065.09 **Work on equipment in elevated positions**, by mounting/ascending and descending/dismounting safely, using required working at heights procedures, and posting warning notices and barricades in accordance with the OHSA, IHSA and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9065.10 Apply lockout and tagout procedures, by performing zero energy procedures to energy sources such as electrical, mechanical, hydraulic, water, steam, gases and pneumatic equipment before commencing any work, in accordance with the Canadian Electrical Code (CEC), the TSSA, OHSA, IHSA, the manufacturers' instructions, and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9066.0 Use and Maintain Tools, Equipment and Devices

General Performance Objectives

Using and maintaining tools, equipment, and devices by using and maintaining hand tools and power tools and associated equipment safely; and, using and maintaining testing and troubleshooting devices.

Skills

9066.01 Use and maintain hand and power tools and associated equipment safely, by determining the correct tool for the job, selecting the tool and required components, documenting use in a tool control system, setting up the tool, energy sources, testing it, applying it to the job, adjusting its operation as necessary, monitoring its operation and performance, identifying deficiencies, and repairing or replacing user-maintainable parts at a standard that is safe and functionally effective in accordance with OSHA, IHSA, manufacturers' specifications and instructions, and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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9066.02 Use and maintain testing and troubleshooting devices, by determining the correct device or equipment for the job, selecting the device and required components, setting up the device, testing it, applying it to the job, monitoring its performance, adjusting its operation as necessary, identifying device deficiencies, recording results, replacing consumables, and repairing or replacing user-maintainable parts so that the devices are used for their intended purposes and are maintained at a standard of repair and accurate calibration that is safe and functionally effective.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9067.0 Employ Job Information Resources

General Performance Objectives

Employing job information resources by determining in-house operations and maintenance requirements; reviewing electrical, mechanical, architectural, and structural drawings; communicating with co-workers; writing reports; maintaining service documents; and preparing work orders to schedule the services of a licensed or qualified trades person.

Skills

9067.01 Determine in-house operation and maintenance requirements, by researching code books, sequence of operations, manuals, manufacturers' specifications and recommendations, warranties, preventive maintenance schedule sheets, and government regulations; identifying system and component types, capacities, tolerances, limitations, safety procedures, replacement procedures, and in-house maintenance and licensing limitations; updating equipment and parts inventory and maintenance inspection routines; sourcing required materials, tools, and equipment; and locating any other necessary information to complete the job in accordance with all codes and company procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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9067.02 **Review electrical, mechanical, architectural, and structural drawings** shop drawings, and schematics to determine the location and layout of equipment, system components, revision level, and all other information needed to plan and complete the job in accordance with company procedures or practices.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9067.03 **Communicate with co-workers**, supervisors, contractors, clients, company representatives, and other tradespersons by written and verbal communications personal communication, telephone, postal service/letter, courier service, and e-mail, ensuring that information delivered is concise, clear, and accurate and is in accordance with company procedures or practices.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9067.04 **Write reports**, such as health and safety reports, injury reports, environmental reports, preventive and predictive maintenance charts, and inventory requisitions, by completing manually or using a computer system, ensuring that written reports are concise, detailed, clear, accurate, and timely, in accordance with company practices or procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9067.05 **Maintain service documents**, such as service call sheets, work orders, work performance sheets, and logbooks by ensuring that all maintenance tasks and services are documented and recorded in accordance with employer’s specifications and company procedures or practices.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9067.06 **Prepare work orders to schedule the services of a licensed or qualified Journeyperson**, such as Electricians, Refrigeration and Air Conditioning Systems Mechanics, Plumbers, Sheet Metal Workers, Sprinkler and Fire Protection Installers and Refrigeration and Air Conditioning Systems Mechanics regulated under the Ontario College of Trades, and Operating Engineers regulated under TSSA, (also known as Stationary Engineers or Power Engineers), in accordance with company procedures or practices.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9068.0 Perform Preventive Maintenance

General Performance Objectives

Performing preventive maintenance by providing administrative support to preventive maintenance duties; performing scheduled preventive maintenance; and coordinating outside contract inspections and corrective work.

Skills

9068.01 Provide administrative support to preventive maintenance duties, by identifying scheduling dates, times, frequency, and location; completing inspection lists; determining related trade and equipment requirements; maintaining completed inspections documentation; completing work orders; identifying and documenting related corrective work; determining in- house maintenance limitations; shutting down equipment; and coordinating required workforce, qualified personnel, materials, parts, and tools, in accordance with government regulations, company procedures, job specifications, and preventive maintenance schedule.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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9068.02 Perform scheduled preventive maintenance, by inspecting and recording equipment performance outcomes and performing maintenance, including cleaning, lubricating, adjusting, and repairing or replacing, so that the maintenance is completed in accordance with manufactures recommendations, company policy, government regulations and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9068.03 **Coordinate outside contract inspections and corrective work**, by identifying the compulsory trade skills that must be performed by the appropriate certified trades under the OCTAA and regulations; ensuring the required workforce for the procedure is on site including qualified personnel, materials, parts, and tools; identifying and scheduling date, time, and location of contract work; scheduling shutdown and start-up of equipment; preparing worksite for inspections and maintenance; reporting service providers if they are not following site specific safety procedures; monitoring inspections; and completing required documentation, in accordance with company policy, OCTAA and regulations, and other government regulations and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9069.0 Operate and Maintain Air Conditioning and Ventilation Systems

General Performance Objectives

Operating and maintaining air conditioning and ventilation systems by troubleshooting and maintaining ventilation systems; performing inspections of air-handling units and components; maintaining air-handling units and unit components; maintaining air-distribution components; maintaining terminal boxes; coordinating seasonal maintenance schedules; verifying and maintaining pressure settings; maintaining room thermostats; maintaining indoor air quality (IAQ); and, inspecting and cleaning duct work ,grills, cooling and heating coils.

Skills

9069.01 Troubleshoot and maintain ventilation systems, including constant volume terminal reheat, constant volume variable temperature, variable air volume, induction, single- zone, multi-zone, and dual-duct systems, and types of air conditioning systems, including rooftop, heat pump, split unit, packaged unit, and window units, by performing a comparative analysis of the system’s actual operation against manufacturers’ specified performance by checking cooling capacity, heating capacity, static pressure, relative humidity, supply and return temperatures, and revolutions per minute (rpm) of fans and motors; and using trade tools and equipment, including tachometer, velocity meter, psychrometer, building automated system (direct digital control or DDC), and reference manuals, ensuring that system is restored to the current design specifications.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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9069.02 Perform inspection of air-handling units and components, including dampers, actuators, fans, filters, heating and cooling coils, bearings, coils, pulleys, belts, valves, motors, shafts, sensor controls, supports, safety devices, guards, humidification units, housings, vibration isolators, duct work, and insulation, by checking for wear, corrosion, leaks, excessive vibration, heat, and unusual noise, and by using the required tools, in accordance with maintenance schedules, OCTAA and regulations, and other government regulations and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9069.03 Maintain air-handling units and unit components, by cleaning dampers and louvres, pulleys, heating and cooling coils, filters, fan blades, and spray pans; lubricating dampers, louvres, and bearings; adjusting belts and pulleys; and replacing belts, filters, and fan blades using required tools, in accordance with OCTAA and regulations and other government regulations and codes, manufacturers specifications, maintenance schedules, and company procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9069.04 Maintain air-distribution components, such as fresh-air intakes, mixing plenums, duct work, and diffusers; by removing dirt, dust, and debris; and washing and cleaning using required equipment, in accordance with OSHA, IHSA and maintenance schedules.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9069.05 **Maintain terminal boxes**, such as variable air volume box, dump box, dual-duct mixing box, “moduline” unit, unit ventilators, and outside air terminal unit by checking and testing sequence and performance of operation, damper operation, minimum settings, thermostat, sensor, supply temperature, and linkage; and repairing or replacing worn and defective parts, in accordance with maintenance schedules, OCTAA and regulations, and other government regulations and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9069.06 **Coordinate seasonal maintenance schedules**, such as shutdown, overhaul, and start-up of air conditioning and ventilation systems, by identifying and scheduling date, time, and location of maintenance procedures; ensuring the required workforce for the procedure is on site including qualified personnel, materials, parts, and tools; ensuring that lockout and tagout procedures are followed; and verifying that all controls and parts are functioning correctly, in accordance with manufacturer’s specifications, maintenance schedule, company procedures, OCTAA and regulations, and other government regulations and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9069.07 **Verify and maintain pressure settings**, by measuring, testing, and adjusting static air pressure, velocity pressure, and total pressure inside a duct; and using checking and measuring instruments, such as velocity meter, pitot tube, anemometer, hot wire, and static pressure gauges, in accordance with limitations imposed by OCTAA and regulations, fan design, manufacturers specifications, company procedures, and maintenance schedule.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9069.08 **Maintain room thermostats**, by inspecting air lines for leaks; checking calibration and operation of thermostat; replacing defective or malfunctioning parts; changing set points; calibrating pressure range of end devices; checking for obstructions and excessive heat or cooling in the vicinity of designated locations; ensuring correct location of thermostat; and using required tools and equipment, in accordance with codes, ASHRAE standards, lease obligations, company procedures, and maintenance procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9069.09 **Maintain Indoor air quality (IAQ)**, by checking and testing airflow supply and return; calculating air change rate; checking cleanliness of ducts and diffusers; testing room temperature and humidity; performing carbon dioxide (CO₂) test; and cleaning pans, coils, and fans, in accordance with codes, ASHRAE standards, lease obligations company procedures, and maintenance procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9069.10 **Inspect and clean duct work and grills**, by vacuuming, washing, and removing obstructions or debris to ensure that ducts and grills are cleaned, and airways are clear and open, in accordance with maintenance programs and company procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9070.0 Operate and Maintain Air Compressors

General Performance Objectives

Operating and maintaining air compressors by performing inspection of air dryers, compressors, and blowdown receivers; maintaining air compressor parts and components; maintaining pneumatic systems and components; and coordinating annual inspections of pressure vessels.

Skills

9070.01 Perform inspection of air dryers, compressors and blowdown receivers, by checking temperature discharge gauge, condition of belts, pulleys, guards, and housings; the status of oil level and colour; condition of intake and line filters; abnormal noise, bearing noise, and vibrations; operating pressures; cycle time air leaks; and abnormal fluid leaks, smell or heat, in accordance with company procedures, maintenance schedules, manufacturers recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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9070.02 Maintain air compressor parts and components, by clearing auto drains, filters, traps, and guards; adjusting belts, pulleys, pressure-reducing valves, and oil levels; replacing belts, pulleys, filters, and oils; and checking safety devices and unloaders, using appropriate tools and equipment, such as pressure gauge, torque wrench, and screwdriver, in accordance with company procedures, maintenance schedules, manufacturers recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9070.03 **Maintain pneumatic systems and components**, by testing, adjusting, and replacing items, such as regulating devices, temperature-sensing devices, damper controls, filters, valves, and diaphragms, in accordance with company procedures, maintenance schedules, manufacturer recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9070.04 **Coordinate the annual inspection of pressure vessels**, by identifying and scheduling date, time, and location of inspection procedures; ensuring that workforce, qualified personnel, outside contractors, required documentation, materials, parts, and tools are on site; and ensuring that start-up and shutdown procedures are followed, in accordance with Boilers and Pressure Vessels Regulation(Ontario Regulation 220/01), OCTAA and regulations, company procedures, maintenance schedules, manufacturer recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9071.0 Operate and Maintain Chillers and Refrigeration Systems

General Performance Objectives

Operating and maintaining chillers and refrigeration systems by coordinating and assisting in the seasonal maintenance schedule; maintaining chiller systems and components; and monitoring and recording chiller and refrigeration systems operations.

Skills

9071.01 Coordinate and assist in the seasonal maintenance schedule, such as start- up and shutdown of the chiller system, by identifying and scheduling date, time, and location of maintenance procedures; ensuring the required workforce for the procedure is on site including qualified personnel, materials, parts, and tools; ensuring that lockout and tagout procedures are followed; and ensuring that all controls and parts are functioning, in accordance with company procedures, maintenance schedules, manufacturer’s recommendations, OCTAA and regulations, and other government regulations and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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9071.02 Maintain chiller systems and components, by cleaning dampers, valves, strainers, motors, coils; checking gas detection and alarm systems; purge unit and pumps; lubricating pumps, motors, couplings, and valves; replacing strainers and belts; checking and adjusting fluid levels and an understanding of all maintenance components such as tube cleaning, eddy current testing, refrigerant monitoring and oil analysis; and using cleaning solvents, lubricants, required hand tools, and gauges, in accordance with government regulations, maintenance schedule, and company procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9071.03 **Monitor and record chiller and refrigeration systems operations**, by checking components and items such as oil, water, pressure and temperature, housing, guards, cooling tower motor and belts, refrigerant levels, and safety devices; using correct tools, equipment and calibrated gas detection instrument; and completing required documentation, in accordance with company procedures, maintenance schedules, manufacturer recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9072.0 Operate and Maintain Water Treatment Systems

General Performance Objectives

Operating and maintaining water treatment systems by operating and maintaining domestic water treatment systems; and maintaining open and closed loop systems.

Skills

9072.01 Operate and maintain domestic water treatment systems, by checking that valves are in required position; cleaning strainers; using standard test kit; collecting water sample for analysis, such as Legionnaires Disease by a certified laboratory; adjusting feed-rate controls and timers; checking for chlorine level, pH level, iron, sulphur, and hardness; and ensuring that the water supply meets required quality standards and safe and efficient operation of the water system pumps in accordance with company procedures, maintenance schedules, manufacturer recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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9072.02 Maintain open and closed loop systems, by checking feedwater pump controls and components for vibration, temperature, noise, and leakage; adjusting timers and chemical rates; performing adjustment procedures on equipment such as steam boilers, hot water boilers, chilled water loop, condensers, cooling tower, coupon rack and glycol systems; completing inventory requisition of chemicals and reagents; documenting chemical usage; maintaining pH level, microbiological agents, conductivity and hardness; and using standard test kits, correct chemical treatment, and required tools, in accordance with company procedures, maintenance schedules, EPA, chemical manufacturers' specifications, manufacturer recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9073.0 Inspect and Verify Fire Suppression and Sprinkler Systems

General Performance Objectives

Inspecting and verifying fire suppression and sprinkler systems by inspecting wet and dry sprinkler systems and components; verifying carbon dioxide (CO₂), dry chemical and wet chemical systems; verifying firefighting equipment readiness including standpipes, siamese connections and caps, extinguishers, cabinets, fire pumps, hydrants, and hoses; maintaining fire separation doors and ventilation fire dampers; and maintaining fire panels and devices.

Skills

9073.01 Inspect wet and dry sprinkler systems and components, by checking for leakage and physical damage of all equipment including fire storage tanks; checking pressure gauge operation; checking air compressor for excessive noise, heat, vibration, and frequency of operation; checking nitrogen cylinder for pressure, level, and damage to gauges; checking manifold and piping for damage; checking equalization pump operation to maintain wet system pressure; checking for correct valve room temperature, moisture at low points in dry sprinkler systems and verifying operation of heat tracing; coordinating annual flow test and five-year standpipe flow test by authorized personal, in accordance with company procedures, maintenance schedules, manufacturer recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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9073.02 **Verify carbon dioxide (CO₂), dry chemical and wet chemical systems,** by visually inspecting tamper indicators and ensuring that operating instructions are visible and posted in accordance with company procedures, maintenance schedules, manufacturer recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9073.03 **Verify firefighting equipment readiness, including standpipes, siamese connections and caps, extinguishers, cabinets, fire pumps, hydrants and hoses,** by checking for leakage or physical damage; checking that nozzles and valves are in position; hoses and extinguishers are in designated locations; extinguishers are hung or racked and have no obvious defects; extinguishers are fully charged and seals are intact; and none of these items are obstructed in accordance with company procedures, maintenance schedules, manufacturer recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9073.04 **Maintain fire-separation doors and ventilation fire dampers,** by checking vertical and horizontal fire barrier separation; checking and cleaning fusible links, guides, bearings, rollers, and tracks; lubricating guides, bearings, and rollers; checking hold-open devices; checking and cleaning dampers, flaps, and tracks, ensuring that all are open and unobstructed; and coordinating the adjustment and repair of door hardware, such as hold-open devices, automatic releases, and weather stripping, in accordance with company procedures, maintenance schedules, manufacturer recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9073.05 **Maintain fire panels and devices**, by testing indicator lights; checking that all switches are in the normal mode; checking that cabinet exterior and glass doors are clean; verifying that panel access is locked; and coordinating the further testing and maintenance by qualified personnel, in accordance with company procedures, maintenance schedules, manufacturer recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9074.0 Inspect, Verify and Log Emergency Power and Lighting Systems

General Performance Objectives

Inspecting and verifying emergency power and lighting systems by testing and maintaining battery-powered systems; inspecting generator-powered (emergency and standby) systems; and coordinating regulatory maintenance schedules.

Skills

9074.01 Test and maintain battery-powered systems, by checking battery pilot lights, electrolyte levels, terminal connections, and clamps, charging system, and operation of unit, in accordance with company procedures, maintenance schedules, manufacturer recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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9074.02 Inspect and log generator-powered (emergency and standby) systems, by checking control panel switches and warning indicators; fuel, engine oil, and coolant levels for leakages; checking position of exhaust louvres; checking condition of air-intake filter; checking mounting bolts and welds, pumps, belts, and gauges; checking battery charger, electrolyte and voltage; and checking room temperature, using required equipment and tools, in accordance with company procedures, maintenance schedules, manufacturer recommendations, government regulations, Canadian Standards Association (CSA) standard for Emergency Electrical Power Supply for Buildings, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9074.03 **Coordinate regulatory maintenance schedule**, including start-up and shutdown of the generator system including all connected loads; ensuring the required workforce for the procedure is on site including qualified personnel, materials, parts, and tools; room temperature is controlled; louvres and transfer switch are operational; and liquid and fuel leaks or spills are eliminated; by checking oil pressure operation and generator output; checking for leakage of exhaust system and engine temperature; verifying that indicator lamps are operational and that the unit is returned to normal standby condition; and ensuring that required CSA logbook is completed, using required equipment and tools, in accordance with company procedures, maintenance schedules, manufacturer recommendations, government regulations, CSA standard Emergency Electrical Power Supply for Buildings, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9075.0 Operate and Maintain Heating Systems

General Performance Objectives

Operating and maintaining heating systems by operating heating systems; maintaining unit heaters; maintaining heat pumps (air cooled and water cooled); maintaining convectors and/or radiators; maintaining terminal reheat coils; maintaining induction units; maintaining rooftop units, maintaining steam or hot water low-pressure heat exchangers; and monitoring and recording gauge readings.

Skills

9075.01 Operate heating systems, by performing system start and stop procedures, performing comparative analysis of the system's actual performance against set points, controllers, and room thermostats, in accordance with company procedures, maintenance schedules, manufacturer recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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9075.02 Maintain unit heaters, by cleaning fan, motor, cabinet, coils, and louvres; lubricating motor, fan bearings, and backdraft dampers; repairing or replacing filters, bearings, belts, pulleys, couplings, control valves, isolating valves, and thermostats; checking operating controls and safety devices; and using required tools and specialty equipment, in accordance with company procedures, maintenance schedules, manufacturer recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9075.03 **Maintain heat pumps (air cooled and water cooled)**, by cleaning condenser, fan motor, cabinet, coils, and louvres; lubricating motor, and fan bearings; replacing filters, bearings, belts, pulleys, couplings, control valves, isolating valves, and thermostats; checking and cleaning condensate U-trap; checking operating controls and safety devices; and using required tools and specialty equipment, in accordance with company procedures, maintenance schedules, manufacturer recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9075.04 **Maintain convectors and/or radiators**, by cleaning cabinets and fins; testing manual, isolating control valves and thermostats; checking operation of control thermostat; adjusting controller to set points; recalibrating thermostat; and using required tools and specialty equipment, in accordance with company procedures, maintenance schedules, manufacturer recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9075.05 **Maintain terminal reheat coils**, by cleaning coils; repairing or replacing manual isolating or hermetic control valves and thermostat; checking operation of control thermostat; adjusting controller to set points; recalibrating thermostat; and using required tools and appropriate cleaning solvents, in accordance with company procedures, maintenance schedules, manufacturer recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9075.06 **Maintain induction units**, by verifying primary air static pressure; cleaning lint screen, primary air nozzles, cabinet, and coils; repairing or replacing isolating hermetic control valves and thermostat; checking operation of controllers or thermostat; adjusting controller to set points; recalibrating thermostat; and using required tools and appropriate cleaning solvents, in accordance with company procedures, maintenance schedules, manufacturer recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9075.07 **Maintain rooftop units**, by cleaning fan, motor, cabinet, coils, and louvres; lubricating motor, fan bearings, and dampers; replacing filters, bearings, belts, pulleys, couplings, control valves, isolating valves, and thermostats; checking and cleaning condensate U-trap, operating controls and safety devices; and using required tools and specialty equipment, in accordance with company procedures, maintenance schedules, manufacturer recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9075.08 **Maintain steam or hot water low-pressure heat exchangers**, by cleaning and lubricating pump and motor; replacing pump motor, coupling, belt, pulley, sensor, isolating valve, safety valve, control valve, controller, and trap; checking operation of control system; adjusting controller to set points; inspecting coils, traps, condensate system, and vacuum breakers; and using required tools, equipment, and appropriate cleaning solvents, in accordance with company procedures, maintenance schedules, manufacturer recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9075.09 **Monitor and record gauge readings, such as pressure, temperature, humidity, and vacuum gauges**, by recording data in logbooks or inspection sheets so that the system sequence of operations is maintained within required limits as specified in manufacturers' recommendations, company procedures or practices, and the maintenance program in accordance with company procedures, maintenance schedules, manufacturer recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9076.0 Operate and Maintain Pumps and Pumping Systems

General Performance Objectives

Operating and maintaining pumps and pumping systems by performing inspections of pumping systems, pumps, and components; troubleshooting pumping systems, pumps, and components; maintaining pumps and system components; and performing system shutdown and start-up procedures.

Skills

9076.01 Perform inspection of pumping systems, pumps, and components, by listening for unusual noise and visually checking for leaks, suction, and discharge pressures; and identifying abnormal heat and excessive vibration, in accordance with company procedures, maintenance schedules, manufacturer recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

*** A Trainer may be a Supervisor or the competent employee designated by the Apprentice's Sponsor.**

9076.02 Troubleshoot pumping systems, pumps and components, by reading and recording suction and discharge pressures; testing operation of controls, safety relief valves, safeties and alarms; comparing results to recommended standards; and ensuring safe and efficient operation of the systems, in accordance with company procedures, maintenance schedules, manufacturer recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9076.03 Maintain pumps and system components, by checking air vents, bearings, belts, casing, check valves, control valves, gaskets, impellers, mechanical controls, packing, piping components, pressure gauges, pulleys, seals, and shafts; cleaning air vents, casing, impellers, and shafts; flushing check valves and control valves; adjusting belts, mechanical controls, and pulleys; and replacing belts and control valves, using required hand tools and equipment in accordance with company procedures, maintenance schedules, manufacturer recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9076.04 Perform system shutdown and start-up procedures, by opening or closing valves; filling or draining system; checking and verifying pressures; and adjusting and operating system controls, in accordance with system operating procedures, company procedures, maintenance schedules, manufacturer recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9077.0 Operate and Maintain Low-Pressure Boilers

General Performance Objectives

Operating and maintaining low-pressure boilers by maintaining low-pressure boiler controls and safety devices; inspecting condition of the combustion side of boiler; and inspecting condition of the water side of boiler.

Skills

9077.01 Maintain low-pressure boiler controls and safety devices, by checking access plate covers, diffusers, expansion and flash tank, gaskets, gauges, impellers, linkages, motors, scanner (flame detector), and valves for operation and condition; dismantling and reassembling as appropriate using trade tools and equipment; and verifying the correct sequence of operation of boiler components to ensure that no damage is caused to the boiler, components, environment, and personnel, in accordance with Boilers and Pressure Vessels Regulation (Ontario Regulation 220/01), manufacturers' specifications and recommendations, and company maintenance procedures and policy.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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9077.02 **Inspect condition of the combustion side of boiler**, such as refractory, tubes, combustion chamber, and inside shell, by checking for defects such as corrosion, cracks, and leaks; using trade tools and equipment; and reporting and coordinating repair of defects by outside contractors in accordance with Boilers and Pressure Vessels Regulation (Ontario Regulation 220/01), company procedures, maintenance schedules, manufacturer recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9077.03 **Inspect condition of the water side of boiler**, by draining, flushing, and hydrostatic test to identify corrosion and leaks, using trade tools and equipment, and reporting and coordinating specialized work on defects, including refractory, shell, combustion, and gas pressure adjustment, and flue gas analysis by outside contractors, in accordance with Boilers and Pressure Vessels Regulation(Ontario Regulation 220/01), company procedures, maintenance schedules, manufacturer recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9078.0 Operate Electrical Systems

General Performance Objectives

Operating electrical systems by resetting and/or shutting down electrical systems and components; coordinating electrical repairs; and, maintaining electrical motor

Skills

9078.01 Reset and/or shut down electrical systems and components, by using reference manuals, test equipment procedures, and equipment specifications; comprehending and recognizing the dangers associated with arc flash; ensuring the required workforce for the procedure is on site including qualified personnel and by following lockout and tagout procedures in accordance with system operating procedures, company procedures, maintenance schedules, manufacturer recommendations, CSA Z462 Canadian Arc Flash standard, OCTAA and regulations, and other government regulations and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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9078.02 **Coordinate electrical repairs**, by ensuring the required workforce for the procedure is on site including qualified personnel, to disconnect, repair, and reconnect electrical systems and components including high-voltage switchgear, transformers, motor control center, and distribution systems; following maintenance schedules and call-ups; and following emergency repair procedures in accordance with system operating procedures, company procedures, maintenance schedules, manufacturer recommendations, OCTAA and regulations, and other government regulations and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9078.03 **Maintain electrical motor components**, by cleaning and lubricating parts and components, using required tools and equipment and following lockout and tagout procedures in accordance with system operating procedures, company procedures, maintenance schedules, manufacturer recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9079.0 Operate and Maintain Control Systems and Instrumentation

General Performance Objectives

Operating and maintaining control systems and instrumentation by operating building control systems; troubleshooting control system operations; and, maintaining control system and system components.

Skills

9079.01 Operate building control systems, by understanding and following the sequence of operation; monitoring control system settings and operations; ensure location of sensors; adjusting system set points; testing control system operations; identifying malfunctions or operating deficiencies; completing required documentation; using tools and equipment and reading and interpreting control system gauges, sensors, and indicators; and reviewing calibration reports and optimal service frequencies, in accordance with system operating procedures, company procedures, maintenance schedules, manufacturer recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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9079.02 Troubleshoot control system operations, by performing a comparative analysis of the system’s actual operation against the design system operations; determining deviations from normal operations by testing, measuring, and recording data; testing control system components, such as valve actuators, thermostats, damper motors, transducers, and temperature, humidity, and pressure sensors; using required measuring and checking equipment, such as temperature, humidity, and pressure gauges, pneumatic test equipment, and multimeter; and coordinating, arranging, and assisting qualified personnel to repair or replace defective components and calibrate components in accordance with system operating procedures, company procedures, maintenance schedules, manufacturer recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9079.03 Maintain building environmental control systems and system components to ensure safe and efficient operation of the system, by repairing or replacing defective components, such as thermostats, pressure sensors, pneumatic tubing, and electronic control components, in accordance with system operating procedures, company procedures, maintenance schedules, manufacturer specifications, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9080.0 Inspect and Monitor Plumbing

General Performance Objectives

Inspecting and monitoring plumbing by troubleshooting plumbing systems and components; maintaining plumbing systems and components; and responding to emergency leakage situations.

Skills

9080.01 Troubleshoot plumbing systems and components, by performing a visual inspection of piping system and components; testing and inspecting plumbing fixtures; identifying and locating leaks, odors, breakages, and plumbing defects in piping supply and/or return lines, floor drains and drain lines; and reporting deficiencies and defects in items such as backflow preventers, to ensure proper operation, in accordance with system operating procedures, company procedures, maintenance schedules, manufacturer recommendations, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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9080.02 Maintain plumbing systems and components, by adjusting or replacing flush valves, flush valve components and tank mechanisms, diaphragms, O-rings, pipe identifiers, seats and seals, set points, washers, and trap seal primers; maintaining sanitary and storm sumps; unblocking drains and fixtures; ensuring the required workforce for the procedure is on site including qualified personnel, to test, repair or replace identified fixtures and fittings such as back flow preventers; and using equipment such as augers and rooters, in accordance with system operating procedures, company procedures, maintenance schedules, manufacturer recommendations, OCTAA and regulations, and other government regulations and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9080.03 Respond to emergency leakage situations, by locating and isolating defective or damaged areas of plumbing systems or components; performing temporary repairs and containment; erecting safety signs and barriers; ensuring the required workforce for the procedure is on site including qualified personnel to repair or replace deficiency or damage in accordance with system operating procedures, company procedures, maintenance schedules, manufacturer recommendations, OCTAA and regulations, and other government regulations and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9081.0 Monitor and Analyse Building Sustainability

General Performance Objectives

Monitoring and analysing building sustainability by monitoring utility readings; analyzing consumption; and identifying high use areas in order to reduce consumption and operating costs.

Skills

9081.01 Monitor utility readings, by developing a maintenance history of utility consumption, recording current consumption, and preparing and forwarding documentation to appropriate administrator in accordance with company procedures/standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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9081.02 Analyze consumption, by assessing utility consumption in relation to historical energy performance data to monitor and track this information by developing baseline and variance reports in accordance with company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9081.03 Identify high use areas in order to reduce consumption and operating costs, by identifying areas for improvement such as high efficiency equipment, equipment runtime, conversions, waste diversion/recycling, water reduction, night setback, HVAC and lighting control system performance, power/time consumption, peak demands and the understanding of building energy profiles including ongoing commissioning to ensure systems are regularly maintained, calibrated and monitored to ensure system efficiency, optimum energy consumption and tenant comfort in accordance with BOMA BEST, LEED and/or Energy Star standards.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9082.0 Maintain Building Interior and Exterior

General Performance Objectives

Maintaining building interior and exterior by conducting inspections of building envelope; repairing or replacing interior and exterior doors and components; applying paint; maintaining ceilings and interior surfaces; maintaining wall appendages; and maintaining overhead suspended equipment.

Skills

9082.01 Conduct inspections of building envelope, by visually and physically checking structural areas, such as brick, cement, and seals; inspecting doors and windows; identifying and documenting damaged, defective, worn, loose, or weakened building parts, components, and equipment, so that all maintenance requirements are identified to maintain the building envelope in accordance with company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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9082.02 Repair or replace interior and exterior doors and components, by replacing doors; lubricating, adjusting, or replacing door locks and hinges; replacing weather stripping and caulking; replacing door glass or screen; and checking security system components and closure hardware so that doors are maintained in accordance with manufacturers' specifications or recommendations, government regulations, codes, and company procedures or practices.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9082.03 **Apply paint**, by brushing, rolling, or spraying; using latex-based or oil-based paints and application equipment, such as brushes, rollers, edgers, tape, spinners, and spraying equipment; placing protective tapes or coverings on surrounding areas; applying paint; cleaning up painting equipment and surrounding area so that paint is applied in an even coat to provide adequate coverage; and ensuring that correct cleaning products are used and that all paints, painting equipment, and cleaning products are identified, sealed, and stored in a ventilated room, in accordance with manufacturers' recommendations or specifications, company procedures or practices, and building or fire codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9082.04 **Maintain ceilings and interior surfaces**, by replacing defective grid or ceiling tiles and patching plaster or drywall so surface is repaired or restored; repairing wallboards, wainscoting, baseboard, wall trim, tiles, fire proofing and expansion joints so that surfaces are cleaned, repaired, or replaced in accordance with manufacturers' specifications and instructions, company standards, and building and/or fire codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9082.05 **Maintain wall appendages**, such as handrails, shelving, and carpet runners, by replacing or repairing defective parts using required tools and equipment, in accordance with manufacturers' specifications and instructions, company policies and procedures, and building and/or fire codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9082.06 **Maintain overhead suspended equipment**, by checking overhead lighting, operation of sound system speakers, overhead mechanical and electrical doors and components, tracks, springs, rollers, seals, bearings, cables, and fasteners; and performing basic maintenance, such as replacing, cleaning, and lubricating components, in accordance with manufacturers' instructions and recommendations, company preventive maintenance schedule, OSHA and IHSA.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9083.0 Perform Grounds Maintenance

General Performance Objectives

Performs grounds maintenance by inspecting grounds; maintaining grounds facilities; and inspecting operation of irrigation systems.

Skills

9083.01 Inspect grounds, by conducting a visual and physical inspection; assessing the condition of lawns, shrubs, flower beds, trees, and gardens; assessing the state of repair of curbs, paving stones, asphalt, concrete, brickwork, fencing, lighting, and signage; and documenting and reporting all grounds maintenance requiring further action, in accordance with company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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9083.02 Maintain grounds facilities, such as exterior walls, paths, fencing, and posted signs, by performing minor repairs; replacing damaged or defective areas of wood, vinyl, metal cladding, or brick walls; repairing and safely maintaining pathways, walkway, and entrances under all weather conditions; patching asphalt, concrete, or paver blocks; replacing posted signs; and repairing wood, metal, or chain link fencing in accordance with manufacturers' recommendations, government and municipal regulations, and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9083.03 **Inspect operation of irrigation systems**, by visually checking controls, piping, sprinkler heads, and valves; testing operation of the system; and checking for damaged components so that the system is functioning properly in accordance with manufacturers' instructions and specifications and company procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9084.0 **Maintain Roofing**

General Performance Objectives

Maintaining roofing by inspecting inside and outside of roofs; inspecting roof equipment; and performing minor emergency roof repairs and roof maintenance.

Skills

9084.01 **Inspect inside and outside of roofs**, by checking roof for defects and areas of deterioration, excessive ponding, growth of algae and mould, unwanted vegetation growth and damaged flashing; inspecting cants, pitch pockets, and curbs; checking for blistering of membrane, blocked drains, defective supports, build-up of debris, snow, and ice; identifying cause or source of damage or defects; determining, and recommending roof repair procedures and requirements; and determining maintenance requirements so that the standard of roof functionality conforms to manufacturers recommendations, company policies and procedures, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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9084.02 **Inspect roof equipment**, by checking roof equipment for defects and areas of deterioration such as chimneys, lightning rods, ground wires, heating cables, gas lines, aviation lighting, rooftop units and other roof equipment; checking for build-up of debris, snow, and ice; identifying cause or source of damage or defects; determining, and recommending roof equipment repair procedures and requirements; and determining maintenance requirements so that the standard of roof equipment functionality conforms to manufacturers recommendations, company policies and procedures, government regulations, and codes.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9084.03 **Perform minor emergency roof repairs and routine maintenance**, by repairing, replacing, and patching damaged or defective areas of roof; clearing drains or hoppers; securing hazardous loose materials; and caulking defective seals or joints so that roofs are restored and free of damage or defects in accordance with manufacturers' recommendations and instructions, government regulations, codes, and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9085.0 Establish and Maintain Customer Service

General Performance Objectives

Establishing and maintaining customer service by establishing tenant and customer relationships; promoting tenant and customer service; and utilizing administrative protocols/programs.

Skills

9085.01 Establish tenant and customer relationship, by documenting requests or concerns from tenants and customers in work orders, service requests or emails to supervisors; respond to concerns or requests by using problem solving and customer service skills to achieve first time resolution; escalate concerns or requests that cannot be resolved immediately; communicate approved actions to tenants and customers, in accordance with company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

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9085.02 Promote tenant and customer service, by fostering relationships, responding in a timely, positive and professional manner, understanding the various concepts of customer service such as, was service delivered on time, was issue resolved the first time or were there several call backs to resolve the problem, was the issue resolved in a courteous manner, and was there follow up with the tenant to ensure for complete satisfaction and exceptional communication; responding to various tenant needs and expectations; resolving concerns utilizing conflict resolution practices, in accordance with company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9085.03 Utilize administrative protocols/programs, by documenting detailed information on work orders or service requests and understanding tenant and customer lease/contract information as applicable, complete necessary documentation for company records, in accordance with company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9086.0 Coordinate Security and Life Safety

General Performance Objectives

Coordinate security and life safety by coordinating security and life safety; administering emergency response plan; and maintaining security and life safety systems.

Skills

9086.01 Coordinate security and life safety, by establishing contractor clearance, issuing pass cards, coordinating access, ensuring sign-in and sign-out of all contractors and visitors attending property management business and key control; ensuring fire, water and electrical life safety systems are isolated; contact third party monitoring services and local authorities whenever there is a fire alarm system or fire suppression system impairment; coordinate fire watch in accordance with company policies, procedures and Authorities Having Jurisdiction (AHJ).

mm/dd/yy	Trainer Print Name	*Trainer Signature
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9086.02 Administer emergency response plan, by responding to incidents such as burning smells, odors, water leaks, drain backups, power failures, fires, bomb threats, and suspicious packages following the established protocol, such as contacting authorities, assisting in building evacuation, liaising with first responders, attending Command and Control Facilities (CACF), coordinate with third party service providers; refer all inquiries including media to designated contact; provide appropriate documentation as per company policies, procedures and Authorities Having Jurisdiction (AHJ), OSHA and IHSA.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

9086.03 Maintain security and life safety systems, by ensuring all contracts are defined and current; coordinate repairs and maintenance; report deficiencies such as unsecured doors, monitor alarm points, collect guard tour information; complete incident and insurance reports, as per company policies, procedures, and Authorities Having Jurisdiction (AHJ), OSHA and IHSA.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

Acronyms	
AC	Air Conditioning
AHJ	Authorities Having Jurisdiction
AHU	Air Handling Unit
AMP	Ampere
ATC	Automatic Temperature Control
BTU	British thermal unit
CACF	Command and Control Facilities
CF	Cubic Feet
CFM	Cubic Feet per Minute
CH	Chiller
CHW	Chilled Water
CHWR	Chilled Water Return
CHWS	Chilled Water Supply
CSA	Canadian Standards Association
CT	Cooling Tower
CWR	Condenser Water Return
CWS	Condenser Water Supply
DB	Dry Bulb Temperature

DEG	Degree
DDC	Direct Digital Control
DHW	Domestic Hot Water
DCW	Domestic Cold Water
EA	Exhaust Air
EAHU	Exhaust Air Handling Unit
ET	Expansion Tank
EUH	Electrical Unit Heater
EX	Exhaust
EXP	Expansion
F	Fahrenheit
FCU	Fan Coil Unit
FPM	Feet per Minute
GALV	Galvanized
GPH	Gallons per Hour
GPM	Gallons per Minute
HP	Horse Power
HVAC	Heating, Ventilation and Air Conditioning
HRU	Heat Recovery Unit
HTG	Heating
Hz	Hertz (cycles per second)

IAQ	Indoor Air Quality
Kw	Kilowatt
MBH	1000 BTU
Mech	Mechanical
MU	Make-up Water
MUA	Make-up Air
NO	Normally Open
NC	Normally Closed
NOM	Nominal
OA	Outside Air
PH	Phase
PRV	Pressure Reducing Valve
RA	Return Air
RET	Return
RLF	Relief
RPM	Revolutions per Minute
RTU	Roof Top Unit
SA	Supply Air
SFD	Smoke Fire Damper
SP	Static Pressure
SS	Stainless Steel

SUP	Supply
SYST	System
T	Thermostat
TEMP	Temperature
TYP	Typical
VOC	Volatile Organic Compounds
V	Volts
VAV	Variable Air Volume
VFD	Variable Frequency Drive
VEL	Velocity
WB	Wet Bulb Temperature
WC	Water Column
WG	Water gauge
WHMIS	Workplace Hazardous Materials Information System
EPA	Environmental Protection Agency
OFC	Optical Fiber Cable
OHSA	Occupational Health and Safety Association
OH+S	Occupation Health and Safety

Trade Related Glossary

This glossary was developed for the exclusive purpose of providing consistent training in this trade.

Air vent – This device consists of a small housing containing a sealed cylinder, partially filled with a volatile liquid, to which a needle valve is attached. The bottom of the cylinder consists of a flexible diaphragm which rests on a stop. When relatively cool air surrounds the cylinder, the needle valve will be open, allowing the air to escape.

Appendage - A part that is joined to something larger; an extension of a main body part (i.e.) piping.

Authorities having jurisdiction – Regulatory or legal bodies that have the power to enforce a law or statute and are named in the legislation.

Blow down – Generally means to remove solids or impurities from a boiler, vessel or tank by opening a drain valve and flushing for a pre-determined time period. Specifically, may refer to a blowdown of a boiler mud drum by opening valves designed for this purpose.

Calibration – A means of adjustment to precision set point measurement according to manufacturer's recommendations.

Closed loop – A heat exchanger, boiler, pumps, piping, and other related auxiliaries forming a complete circuit with no means of adding fluid except by external means.

Coil - A series of connected pipes or tubes in rows or layers, used in steam or hydronic heating systems.

Compressor – A device that converts power from an electric motor or diesel engine into potential energy by forcing air into a smaller volume and thus increasing its pressure.

Condensate system – A system that combines piping, tank, pumps and related auxiliaries together to collect condensed steam (condensate) centrally and store it so it can be re-used in the boiler.

Conductivity – A measure of how water conducts electricity using micro-mhos or micro-Siemens. A high conductivity reading indicates that the water is high in total dissolved solids which are the scale producing salts that are detrimental to the boiler.

Confined space - An enclosed area with limited space and accessibility which may be occasionally entered by workers for maintenance but is otherwise not a habitable space. Hazards in a confined space often include harmful dust or gases, toxic compounds and physical hazards. (e.g.) Tank, grease interceptor.

Control system – A central system that holds a number of devices that are used to operate a certain function (e.g.) Chiller unit. These devices may be electrical, pneumatic, hydraulic and/or electronic.

Convector – A device in which steam or hot water flows through a copper or steel tube with metal fins attached, which serves to increase the heat transfer from the tube

to the air circulating through the convector. The heating unit is enclosed in a metal case having grill openings at the top the bottom.

Coupling – In piping, a threaded or soldered fitting that is used to join two long lengths of pipe together. In prime movers, a device that joins the prime mover (i.e.) electric motor, to a pump or compressor and leaves it flexible enough to absorb vibrations caused by misalignment.

Coupon rack - Test coupons cleaned and weighed are set in a coupon column installed in a bypass line of the circulating water and contact with the water flow for a specified period. It is better to install the coupon columns in the both bypass lines of supply and return water. After passing the specified test period, the test coupons are removed from the column, de-rusted and weighed after drying. The corrosion rate of coupon is calculated from the weight loss during test period.

Customer – Is known as a client, buyer, or purchaser and is the recipient of a [good](#), [service](#), [product](#), or idea, obtained from a [seller](#), [vendor](#), or [supplier](#) for a monetary or other valuable consideration.

Damper - a mechanical device in a duct or opening that regulates airflow or directs conditioned air.

Diaphragm –A thin flexible plate made of rubber, latex, leather or plastic usually circular, held in place in a capsule in such a way that when pressure is applied to one side, the plate will bulge outward.

Diffuser - An increasing cross-sectional area that is designed to convert high-speed fluid flow into low-speed flow at an increased pressure.

Discharge pressure – The pressure at the outlet of a pump, compressor, fan or other pressure producing device normally positive in nature. (e.g.) Pump brings in water at 100 kPa and discharges at 500 kPa

Drum drip - device installed at a low point within a dry sprinkler system to capture moisture and to allow for draining.

Dual duct – A type of air handling system in which there are two air supply ducts and one return duct. The two air supply ducts are separated – one for cooling purposes and one for heating. In some cases, they may be used together.

Dump box – in a constant volume airflow fan system, an area where the supply air is diverted to the return air plenum when the space temperature is optimal, allowing for zone control.

Emergency generator – An AC (alternating current) generator that is used to provide standby or emergency power for some lighting, exit signs, fire elevators and other designated devices when there is a building electrical power failure.

Equalization pump (jockey pump) - A small pump connected to a [fire sprinkler](#) system and is intended to maintain pressure in a fire protection piping system to an artificially high level so that the operation of a single fire sprinkler will cause a pressure drop which will be sensed by the fire pump automatic controller, causing the fire pump to start. The jockey pump is essentially a portion of the fire pump's control system.

Expansion tank – A tank or pressure vessel in line with a hot water boiler to form a closed loop system that allows for expansion of the hot water when the boiler is on and contraction when it shuts off. This is needed to keep the system pressure in the hot water closed loop system at a pre-set pressure.

Flash tank – A pressure vessel open to atmosphere used to take high pressure, high temperature water and reduce its temperature and pressure. (e.g.) Water from the boiler at 101 kPa sent to the flash tank at 0 kPa will result in the water evaporating into steam almost instantaneously and reducing the temperature from 121 degrees C to 100 degrees C but reducing the latent heat by 2257 kJ/kg.

Hardness - A property that causes the material to resist indentation or abrasion. In water treatment, a measurement of the number of grains or parts per million (ppm) of permanent scale producing salts.

Heat exchangers – (plate; shell and tube; shell and plate) A heat exchanger transfers heat from one substance to another without allowing the substances to mix. In a plate heat exchanger, fluid flows through plates and transfers heat via the plates; In shell and tube heat exchangers, tubes are placed the length of the shell, fluid surrounds the tubes in the shell and fluid is in the tubes transferring heat without mixing; In a shell and plate heat exchanger, fluid in the shell exchanges heat with fluid in the plate.

Heat pump - A heat transfer device that uses the heat rejected by a refrigeration process to provide heat or a combined cooling and heating unit.

Hopper - A storage container used to dispense granular materials through the use of a [chute](#) to restrict flow, sometimes assisted by mechanical agitation; a device used to collect granular materials designed to easily dispense these materials through the use of gravity.

Hydrostatic Test – A pressure test on a boiler or vessel to test for leaks or strength. The vessel is completely filled with water and the pressure is 1.5 times the normal working pressure.

Induction unit – A terminal air handling device that uses high velocity air to distribute heat from finned tubes or cooling from finned tubes through a convector or other device.

Inspection - An organized [examination](#) or formal evaluation exercise that involves the [measurements](#), [tests](#), and [gauges](#) applied to certain characteristics from which results are usually compared to specified [requirements](#) and standards for determining whether the item or activity is in line with these targets, often with a [Standard Inspection Procedure](#) in place to ensure consistent checking. Inspections are usually non-destructive.

Legionnaires – An airborne respiratory disease thought to be caused from pathogens and algae blooms from poorly maintained cooling towers that are close to air handling supply air intakes. The disease may cause COPD and in some cases death.

Lock-out/tag-out - A safety procedure which is used in industry and research settings to ensure that any machine and its associated piping and auxiliaries are properly isolated mechanically, electrically, and hydraulically before any repair or maintenance work is done.

Low pressure hot water heat exchanger – A heat exchanger under 250 degrees F or 121 degrees C.

Low pressure steam heat exchanger – A heat exchanger under 15 psi or 103 KPa.

Maintenance – Scheduled or unscheduled repairs to piping, wiring, equipment, controls, or any piece of machinery that is used in the normal operation of the plant.

Motor – A prime mover of a pump, fan, compressor, or other device usually electric or internal combustion.

Multi zone – An air handling system that uses a number of coils and pumps each designated for a specific area of the building or plant.

Open loop – Refers to a water circuit that does not return to the original start but flows to drain. Sometimes referred to as “once through” water cooling system.

Package unit – A boiler or compressor built at the factory in its entirety on a skid. It consists of all the necessary components required for the unit to run and only needs to be hooked up to a power, gas and water supply.

Ph level - The measure of acidity or alkalinity of a substance, indicated as a number, i.e.7 = neutral, above 7 = alkaline, below 7 = acidic.

Psychrometer - A device used to measure humidity by comparing the wet and dry bulb temperatures of the air or space.

Pneumatic - Any system using regulated compressed air as a working medium.

Pressure vessel (Boilers, Compressors, Chillers, and Heat Exchangers) - An unfired, closed vessel used for containing, storing, distributing, distilling, processing, or otherwise handling gas, vapor, or liquid exceeding the service and size limits as defined in CSA Standard B51.

Pump – A device that transfers a fluid from one area to another by increasing the pressure.

Radiator – A heat exchanger used in an internal combustion engine that is used to remove the heat from the cylinder jacket by circulating fluid (glycol) through the heat exchanger while air is moved across the finned tubes; A heat exchanger used to distribute heat from low pressure steam by radiating it into the room.

Reagent - A substance or compound that is added to a system in order to bring about a chemical reaction; in water treatment tests, a reagent is added to a solution to see if a reaction occurs.

Refractory - Temperature resistant material used in boiler furnaces for the purpose of protection around burners, lining fireboxes, sealing around openings, or making baffles.

Reheat coil – A coil or set of tubes in the air handling unit that is used to increase the temperature of the air slightly after it has gone through chilled water or refrigeration coils; part of comfort condition system.

Roof top unit – A fully integrated air handling, furnace, evaporator, condenser, filters and damper system located on the roof of a low rise building usually connected through the roof to both supply air and return air ducting.

Shaft - A device used to transmit energy from the motor to its load.

Standby generator – A generator for the intent purpose of providing electrical power in case of loss of building power. Standby generators usually provide power to emergency lighting, firefighting elevators, fire pumps and a few other required devices.

Sustainability - The [organizing principle](#) for sustainability is [sustainable development](#), which includes the four interconnected domains: ecology, economics, politics and culture. [Sustainability science](#) is the study of sustainable development and environmental science.

(Symbol) delta T (Temperature) and delta - P (Pressure) – Differential of temperature across a system (e.g.) heat exchanger; Differential of pressure across a system (e.g.) pump strainer

Tachometer – A device that measures the revolutions per minute (RPM) of a mechanical rotating device.

Tenant – A customer who pays rent or leases an office in a building.

Thermostat - A device that controls the input of heat energy to maintain the pre-set temperature in the space being heated.

Transducer - A device that converts signals of one energy form to another.

Vacuum - A pressure below atmospheric pressure.

Valve - Any device modifying or closing off the passage of fluid through a pipe.

Variable frequency drive - A type of [adjustable-speed drive](#) used in [electro-mechanical](#) drive systems to control [AC motor speed](#) and [torque](#) by varying motor input [frequency](#) and [voltage](#).

Velocity meter – Also called a Pitot tube. It is used to measure the local flow velocity at a given point in the flow stream and not the average flow velocity in the pipe or conduit.

Waste diversion (recycling) - A process to change [waste](#) materials into new products to prevent waste of potentially useful materials, reduce the consumption of fresh raw materials, reduce [energy](#) usage, reduce air pollution (from [incineration](#)) and water pollution (from [landfilling](#)) by reducing the need for "conventional" waste disposal, and lower [greenhouse gas](#) emissions.

Water treatment – The process of mechanically or chemically altering the water used in boilers for steam production so that the impurities will not cause scale laydown and will minimize corrosion and pitting from dissolved oxygen in the water.

Workplace - The physical location where someone works.

Definitions

Apprentice

- An individual who, pursuant to a registered Training Agreement, is receiving or is to receive training in a trade that is required as part of an apprenticeship program
- Holds a Training Agreement in either a compulsory or non-compulsory trade;
- Are subject to any ratios that have been set out in regulation and or recommended by industry for their trade(s);
- Remain as an Apprentice until they receive their Certificate of Apprenticeship

BOSTA

Building Opportunities in the Skilled Trades Act, 2021 (BOSTA)

Certificate of Apprenticeship (C of A)

A certificate issued to individuals who have demonstrated that they have completed an apprenticeship program in Ontario.

Certificate of Qualification (C of Q)

A certificate issued to an individual who has completed an apprenticeship or equivalent AND passed the Certificate of Qualification examination.

Competence

The ability of an individual to perform a skill, consistently without assistance, in the workplace as set out in the Logbook.

Competency Analysis Profile (CAP Chart)

A chart that identifies the training needs of an individual trade and details the skills/skill sets that must be demonstrated during an apprenticeship program.

Journey person

Journey person means an individual who holds a certificate of qualification (in a compulsory or non-compulsory trade) and/or an individual who practices as a journey person in a non-compulsory trade who does not hold a certificate of qualification and has equivalent experience in that trade.

Mandatory Skill

Status assigned to unshaded individual skills, skill sets or general performance objectives which must be signed-off for the Apprentice to complete their program.

Optional Skill

Status assigned to shaded individual skills, skills sets or general performance objectives for which sign-off is not required for the Apprentice to complete the program.

Provisional Certificates of Qualification

- A Provisional Certificate of Qualification is issued to an individual who has obtained a Certificate of Apprenticeship (in both compulsory and non-compulsory trades) in a program that has a Certificate of Qualification examination, to which the individual has not yet passed the Certificate of Qualification examination.
- A Provisional Certificate of Qualification shall have the prescribed term or, if no term is prescribed, a term of one year.
- In a compulsory trade, the Provisional Certificate of Qualification allows a person to continue working legally in the trade for up to 12 months while they work to pass the certifying exam.
- Individuals with a Provisional Certificate of Qualification are subject to any ratios that have been set out for their trade(s).

Ratios

For the purpose of an Apprenticeship program, a ratio is the maximum number of Journeypersons to Apprentices. The purpose of ratios is to provide consistent supervision, training and continuity of work.

Sign-off

Signature of the Sponsor of record, or an individual to whom that Sponsor has delegated signing authority, (e.g. Trainer) indicating an Apprentice's demonstration of competence.

Skill

Individual competency/task described in the Logbook.

Skill Sets

Group or selection of individual skills found in the Logbook.

Skill Set Completion for Sponsors

Listing for all skill sets and includes space for sign-off by Sponsor of record.

Sponsor

Means a person that has entered into a registered Training Agreement under which the person is required to ensure that an individual is provided with workplace-based training in a trade as part of an apprenticeship program.

Sponsor of Record

Refers to the Sponsor documented as being signatory to the registered Training Agreement or Contract of Apprenticeship. In order for a Sponsor to be considered for the training of Apprentices, they must identify that the workplace has qualified persons or the equivalent on site, and can identify that the workplace has the tools, equipment, materials, and processes which have been identified by the Industry representatives for the trade.

Trainer

An individual who oversees the performance of a task and sets the workplace expectations and practices for the Apprentice. For a compulsory trade, a qualified Trainer is an individual who holds a Certificate of Qualification. In a non-compulsory trade, a Trainer is an individual who either holds a CofQ, CofA, or is considered equivalent.

Ready to Write Your Exam?

Many of the skilled trades in Ontario have a final certification examination that you must pass to become certified in your trade. Passing the examination gives you the right to hold yourself out as a Journeyperson and receive a Certificate of Qualification in your trade.

There are two types of trade certification examinations in Ontario:

1. Provincial (Ontario) examinations - which lead to a Certificate of Qualification.
2. Red Seal examinations – which lead to a Certificate of Qualification with an Interprovincial Red Seal endorsement.

If a trade is designated as Red Seal in Ontario, you will be writing the Red Seal examination. To access the Red Seal preparation guide please visit: red-seal.ca

Ontario's Exam Preparation Guide

[Exam Resources – Skilled Trades Ontario](#)

Basic Examination Details for You to Know

- You will have **up to four hours to write your examination.**
- Accommodations must be requested and approved prior to scheduling your examination.
- You can leave the examination centre if you complete the examination in less than four hours.
- Exam questions are multiple choice with four options from which you must choose the correct answer. Your examination may have between 90 and 150 multiple choice questions.
- You need a mark of 70% to pass.

Scheduling Your Examination

The examination scheduling process is currently outlined in detail on the Skilled Trades Ontario website: [Exam Scheduling – Skilled Trades Ontario](#)

Remember these 3 basic steps:

1. Confirm your eligibility to write the examination with Skilled Trades Ontario.
2. Contact Client Services at Skilled Trades Ontario to pay your examination fee.
3. Contact the local Service Delivery Office to schedule your examination in their examination centre: <https://www.ontario.ca/page/employment-ontario-apprenticeship-offices>

Instructions for Recording a Change in Sponsor

1. Record your first sponsor's information in Sponsor Record #1 – this would be the sponsor who has signed your initial apprenticeship Training Agreement for this trade.
2. If you do change sponsors prior to completing this apprenticeship, please contact your local Service Delivery Office immediately to update your sponsor record.
3. Please make sure you record all the information regarding any additional sponsors of record towards your apprenticeship using the Sponsor Records on the following pages (if applicable).

You must fill out a Change of Sponsor Record each time you change your sponsor.

Sponsor Record #1

Sponsor Information		
Apprentice Name		
Training Agreement #		Date (mm/dd/yy)
Sponsor Name		
Address		
Telephone		
E-mail Address		

Summary of Training	
Employment Start Date	
Employment End Date	
Total hours of training & instruction between dates of employment.	
Skill Sets Completed	

As the Sponsor, I hereby confirm that the above information is true and accurate to the best of my knowledge.

Signature: _____ Date: (mm/dd/yy) _____

The Sponsor is required to sign-off and date the skills after the Apprentice has proven competence in those skills. However, if a skill is shaded, it is optional and does not need to be signed-off.

***If you need additional copies of the Sponsor Record, visit SkilledTradesOntario.ca and search Sponsor Record Form.**

Change of Sponsor Record #2

Sponsor Information		
Apprentice Name		
Training Agreement #		Date (mm/dd/yy)
Sponsor Name		
Address		
Telephone		
E-mail Address		

Summary of Training	
Employment Start Date	
Employment End Date	
Total hours of training & instruction between dates of employment.	
Skill Sets Completed	

As the Sponsor, I hereby confirm that the above information is true and accurate to the best of my knowledge.

Signature: _____ Date: (mm/dd/yy) _____

The Sponsor is required to sign-off and date the skills after the Apprentice has proven competence in those skills. However, if a skill is shaded, it is optional and does not need to be signed-off.

***If you need additional copies of the Sponsor Record, visit SkilledTradesOntario.ca and search Sponsor Record Form.**

Change of Sponsor Record #3

Sponsor Information		
Apprentice Name		
Training Agreement #		Date (mm/dd/yy)
Sponsor Name		
Address		
Telephone		
E-mail Address		

Summary of Training	
Employment Start Date	
Employment End Date	
Total hours of training & instruction between dates of employment.	
Skill Sets Completed	

As the Sponsor, I hereby confirm that the above information is true and accurate to the best of my knowledge.

Signature: _____ Date: (mm/dd/yy) _____

The Sponsor is required to sign-off and date the skills after the Apprentice has proven competence in those skills. However, if a skill is shaded, it is optional and does not need to be signed-off.

***If you need additional copies of the Sponsor Record, visit SkilledTradesOntario.ca and search Sponsor Record Form.**

Change of Sponsor Record #4

Sponsor Information		
Apprentice Name		
Training Agreement #		Date (mm/dd/yy)
Sponsor Name		
Address		
Telephone		
E-mail Address		

Summary of Training	
Employment Start Date	
Employment End Date	
Total hours of training & instruction between dates of employment.	
Skill Sets Completed	

As the Sponsor, I hereby confirm that the above information is true and accurate to the best of my knowledge.

Signature: _____ Date: (mm/dd/yy) _____

The Sponsor is required to sign-off and date the skills after the Apprentice has proven competence in those skills. However, if a skill is shaded, it is optional and does not need to be signed-off.

***If you need additional copies of the Sponsor Record, visit SkilledTradesOntario.ca and search Sponsor Record Form.**

Appendix A — Instructions for Apprenticeship Program Completion

Once an Apprentice has completed all the classroom training and benchmark on-the-job hours specified for the trade and has acquired all the mandatory skills included in this Logbook.

The Apprentice and the Sponsor complete the Apprentice Completion Form and the Skill Set Completion for Sponsors Form located on the following pages.

1. They sign the forms and submit them to their local Service Delivery Office. To find the closest office, check the contact information at ontario.ca/page/employment-ontario-apprenticeship-offices or call the *Employment Ontario* toll free number at (1-800-387-5656).
2. For All Trades: All mandatory skills (or the combination indicated in the completion requirements for the trade) in the Logbook must be signed-off. The recommended hours are a benchmark. If the Sponsor is completing the Apprentice before the industry recommended training hours are done, staff may request further information regarding the Apprentice's on-the-job training. An example of a request would be a letter from the Sponsor confirming the Apprentice worked for some time in the trade before the initial Training Agreement was registered, thereby acquiring some skills beforehand.

If Apprentices are submitting the completion request form and supporting documentation to their local Service Delivery Office by mail, fax, or email (as a scanned document), they should not include their Logbook; if they are presenting this form in person at the local Service Delivery Office, they should bring their Logbook with them.

After staff verifies all the information in the completion request, they may contact either the Apprentice or the Sponsor for further information or documentation. Once the completion has been confirmed, the local Service Delivery Office will issue a Certificate of Apprenticeship to the Apprentice.

Skilled Trades Ontario will receive notification of this completion.

- If the Apprentice has completed a program in a **compulsory trade**, Skilled Trades Ontario will automatically register the Apprentice for a Provisional Certificate of Qualification to continue to work legally for one year while preparing for the certification examination.
- If an Apprentice completes their apprenticeship in a **non-compulsory trade** and there is a Certificate of Qualification exam, they must write and pass the exam to receive a Certificate of Qualification from Skilled Trades Ontario.

For permission to schedule an exam once completion is confirmed, the individual must first contact the Skilled Trades Ontario Client Services Department at 647-847-3000 or toll free at 1-855-299-0028 to pay the certification examination fee. Once you have paid your exam fee with Skilled Trades Ontario, book your exam by contacting your nearest Employment Ontario local Service Delivery Office.

Appendix B — Apprentice Completion Form

Please fill out both sides of this form, including the Skill Set Completion for Sponsors (see back of form). Once both sides are completed, submit the form to your local Service Delivery Office (find contact information at ontario.ca/page/employment-ontario-apprenticeship-offices or by calling Employment Ontario at (1-800-387-5656).

Apprentice Information	
Name (print)	
Client ID # Issued by Ministry	
Telephone Number(s)	

Sponsor Information	
Legal Name	
Address	
Telephone Number(s)	
Sponsor's Signing Authority <i>(print name)</i>	
E-mail Address	

Program Information	
Trade Name	
Number of hours required as per Training Agreement <i>(hours-based trades only)</i>	
Hours completed? <i>(documentation attached)</i>	Yes () No () Not applicable ()
Classroom training completed or exempt?	Yes () No () Not applicable ()

I hereby confirm that the information submitted on both sides of this form is true and accurate.

X _____
Apprentice's Signature Date

X _____
Signature of Sponsor's Signing Authority Date

Appendix C — Skill Set Completion for Sponsors

You will find the skill set numbers and titles in the Logbook's Table of Contents. By signing off each skill set in the table below, you are providing final confirmation, as the Apprentice's Sponsor, that the Apprentice has demonstrated competency in all the mandatory skills included in the skill set.

Skill Set #	Skill Set Title	Signing Authority Signature
9065.0	Demonstrate Safe Working Practices and Procedures	
9066.0	Use and Maintain Tools, Equipment, and Devices	
9067.0	Prepare Work Orders to Schedule the Services of a Licensed or Qualified journeyperson	
9068.0	Perform Preventive Maintenance	
9069.0	Operate and Maintain Air Conditioning and Ventilation Systems	
9070.0	Operate and Maintain Air Compressors	
9071.0	Operate and Maintain Chillers and Refrigeration Systems	
9072.0	Operate and Maintain Water Treatment Systems	
9073.0	Inspect and Verify Fire Suppression and Sprinkler Systems	
9074.0	Inspect, Verify and Log Emergency Power and Lighting Systems	
9075.0	Operate and Maintain Heating Systems	
9076.0	Operate and Maintain Pumps and Pumping Systems	
9077.0	Operate and Maintain Low-Pressure Boilers	
9078.0	Operate Electrical Systems	
9079.0	Operate and Maintain Control Systems and Instrumentation	
9080.0	Inspect and Monitor Plumbing	
9081.0	Monitor and Analyze Building Sustainability	
9082.0	Maintain Building Interior and Exterior	
9083.0	Perform Grounds Maintenance	
9084.0	Maintain Roofing	
9085.0	Establish and Maintain Customer Service	
9086.0	Coordinate Security and Life Safety	

Ministry of Labour, Immigration, Training and Skills Development use only:

Sponsor verified as most recent sponsor of record: Yes () No ()

Documentation to support completion of hours attached: Yes () No ()

Completion of classroom training verified: Yes () No ()

Staff Name _____ Signature _____

Date _____

Appendix D — Local Service Delivery Offices in Ontario

For current office listings visit: ontario.ca/page/employment-Ontario-apprenticeship-offices

Location	Contact	Location	Contact
Barrie 705-737-1431	55 Cedar Pointe Dr Unit 609, Barrie, ON L4N 5R7	Marathon 807-346-1550	52 Peninsula Road, Suite 103 Marathon, Ontario, P0T 2E0
Belleville 613-968-5558 1-800-953-6885	135 North Front St, Belleville, ON K8P 3B5	Markham 905-513-2695	140 Allstate Parkway, Suite 505, Markham, Ontario L3R 5Y8
Brantford 519-756-5197	505 Park Rd North Suite 201, Brantford, ON N3R 7K8	North Bay 705-495-8515 1-800-236-0744	200 First Ave West, North Bay, ON P1B 3B9
Chatham 519-354-2766 1-800-214-8284	870 Richmond St West 1st Floor, Chatham, ON N7M 5J5	Ottawa 613-731-7100 1-877-221-1220	Preston Square, 347 Preston Street, Suite 310, Ottawa, ON K1S 3H8
Cornwall 613-938-9702 1-877-668-6604	132 Second St East Ste 202, Cornwall, ON K6H 1Y4	Owen Sound 519-376-5790 1-800-838-9468	1450 1st Ave West, Suite 100, Owen Sound, ON N4K 6W2
Dryden 807-456-2665 1-800-734-9572	Provincial Government Building, 479 Government St, Dryden, ON P8N 3K9	Peel 905-279-7333 1-800-736-5520	The Emerald Centre, 10 Kingsbridge Garden Circle, Suite 404, Mississauga, ON L5R 3K6
Durham 905-433-0595 1-800-461-4608	78 Richmond Street West, Oshawa, ON L1G 1E1	Pembroke 613-735-3911 1-800-807-0227	615 Pembroke St East, Pembroke, ON K8A 3L7
Elliot Lake 1-800-236-8817	50 Hillside Dr North, Elliot Lake, ON P5A 1X4	Peterborough 705-745-1918 1-877-433-6555	901 Lansdowne St West, Peterborough, ON K9J 1Z5
Fort Frances 807-274-8634	922 Scott St 2nd Flr, Fort Frances, ON P9A 1J4	Sarnia 519-542-7705 1-800-363-8453	Bayside Mall, 150 Christina St North, Sarnia, ON N7T 7W5
Geraldton 807-854-1966	208 Beamish Avenue West Geraldton, Ontario P0T 1M0	Sault Ste. Marie 705-945-6815 1-800-236-8817	477 Queen St East 4th Flr, Sault Ste Marie, ON P6A 1Z5
Halton 905-842-5105 1-844-901-5105	700 Dorval Dr., Suite 201, Oakville, ON L6K 3V3	St Catharines 905-704-2991 1-800-263-4475	Garden City Tower, 301 St Paul St East, 10th Flr, St Catharines, ON L2R 7R4
Hamilton 905-521-7764 1-800-668-4479	Ellen Fairclough Bldg, 119 King St West 8th Flr, Hamilton, ON L8P 4Y7	Sudbury 705-564-3030 1-800-603-5999	159 Cedar St Ste 506, Sudbury, ON P3E 6A5
Kapuskasing 705-465-5785 705-235-1950	Ontario Government Complex, 122 Government Rd West, Kapuskasing, ON P5N 2X8	Thunder Bay 807-346-1550 1-800-439-5493	189 Red River Rd Suite 103, Thunder Bay, ON P7B 1A2
Kenora 807-468-2879 1-800-734-9572	227 1/2 Second St South, Kenora, ON P9N 1G4	Timmins 705-235-1950 1-877-275-5139	Ontario Government Complex, 5520 Highway 101 East Wing B, South Porcupine, ON P0N 1H0
Kingston 613-548-1151 1-866-973-4043	Alliance Business Centre, 299 Concession St Ste 201, Kingston, ON K7K 2B9	Toronto Centre 416-927-7366 1-800-387-5656	2 St Clair West, 11 th floor Toronto, ON M4A 1L5
Kitchener 519-653-5758 1-866-877-0099	4275 King St East, Kitchener, ON N2P 2E9	Toronto South 416-326-5800	625 Church St 1st Fl, Toronto, ON M7A 2B5
London 519-675-7788 1-800-265-1050	1200 Commissioners Rd E, Unit 72, London, ON N5Z 4R3	Windsor 519-973-1441	Roundhouse Centre, 3155 Howard Ave 2nd Fl, Suite 200, Windsor, ON N8X 4Y8

Competency Analysis Profile (CAP) Chart

9065.0
Demonstrate Safe Working Practices and Procedures

9065.01
Comply with safety directives provided in legislation and regulations

9065.02
Wear and maintain personal protective equipment

9065.03
Maintain a safe workplace

9065.04
Practice fire safety procedures

9065.05
Practice security procedures

9065.06
Take corrective action against workplace hazards

9065.07
Work within safe physical limits

9065.08
Perform pre-operational checks on elevated work platforms and material- handling equipment for proper condition and operation

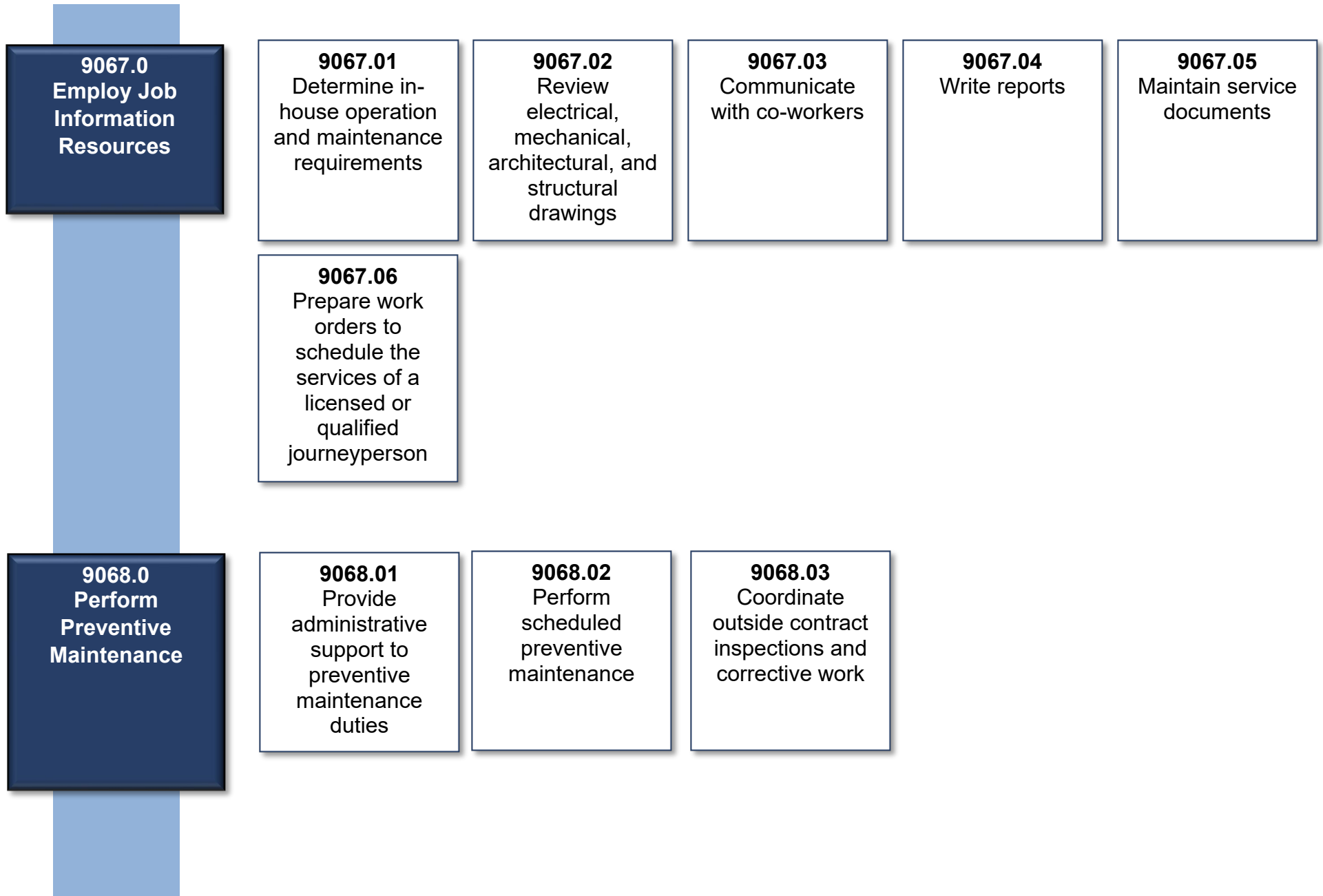
9065.09
Work on equipment in elevated positions

9065.10
Apply lockout and tagout procedures

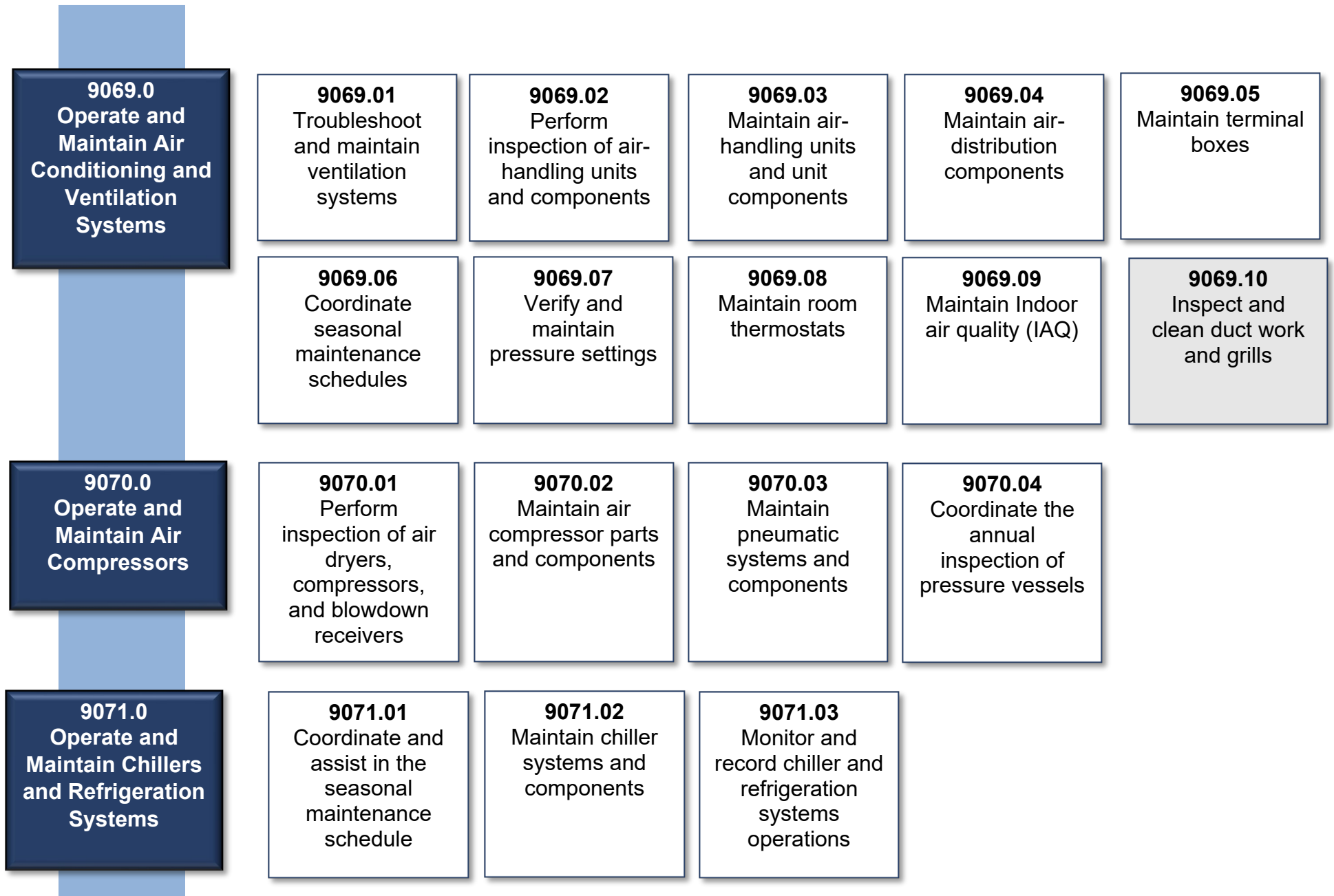
9066.0
Use and Maintain Tools, Equipment and Devices

9066.01
Use and maintain hand and power tools and associated equipment

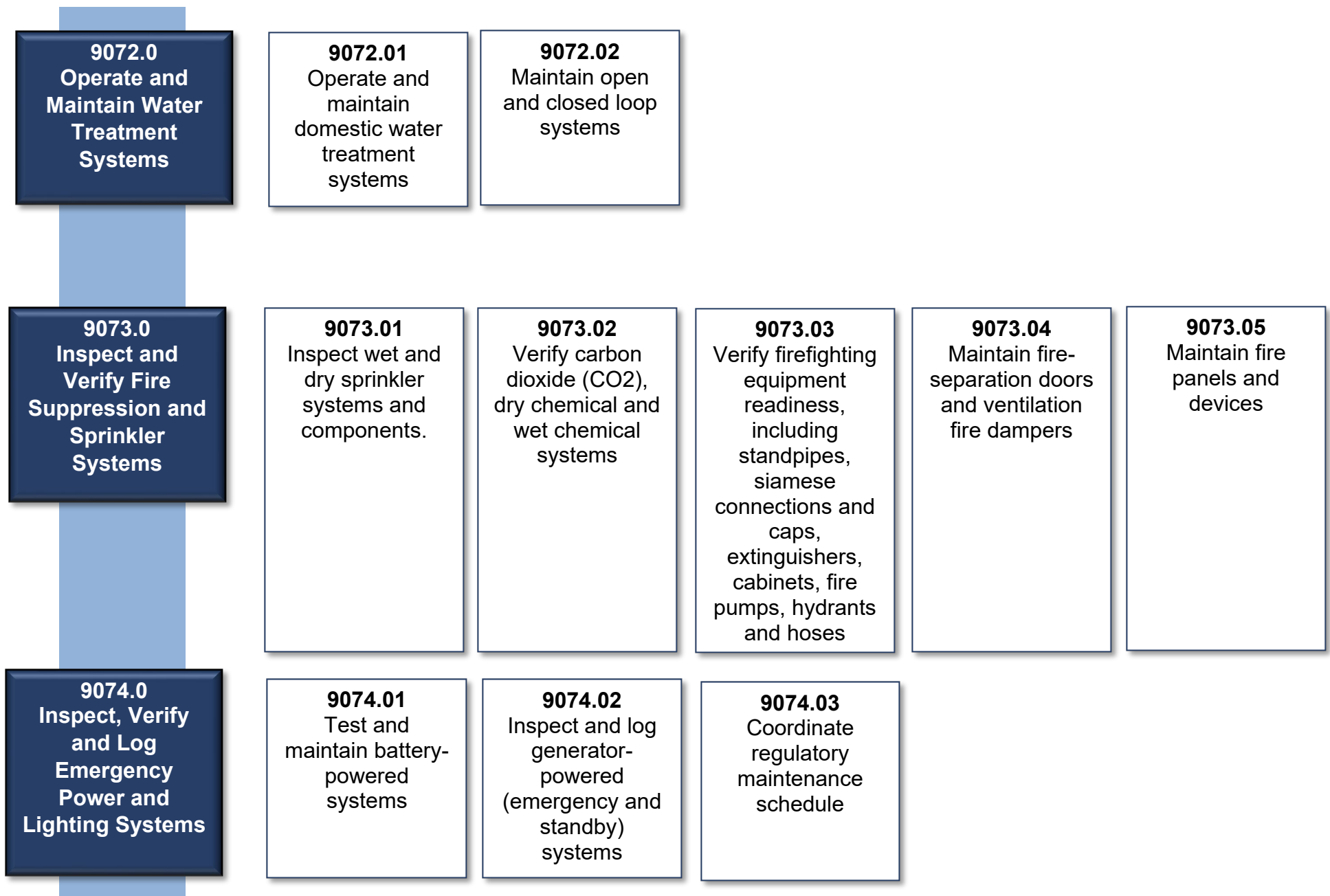
9066.02
Use and maintain testing and troubleshooting devices



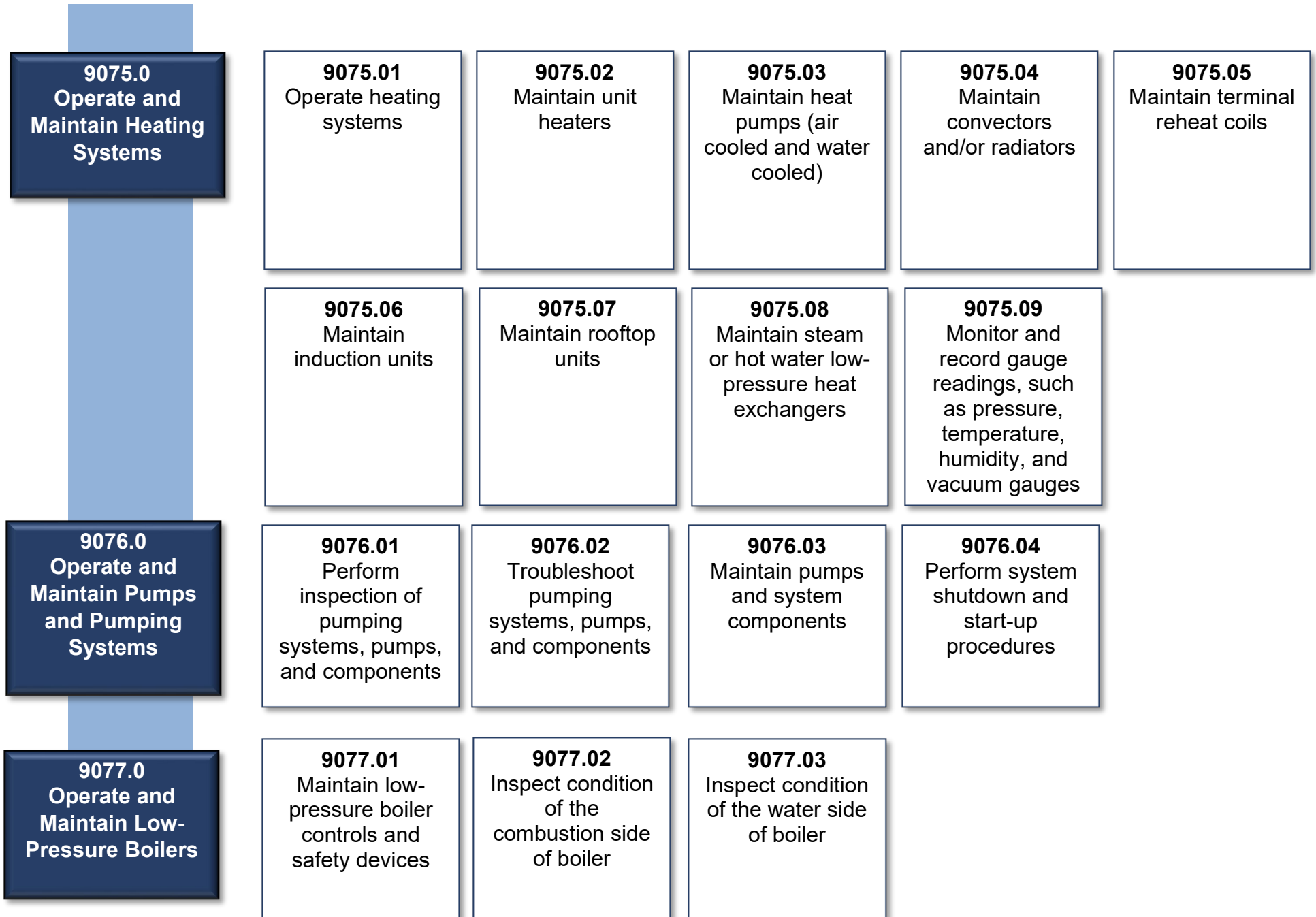
Competency Analysis Profile Facilities Technician 255B (all unshaded skill sets must be completed)



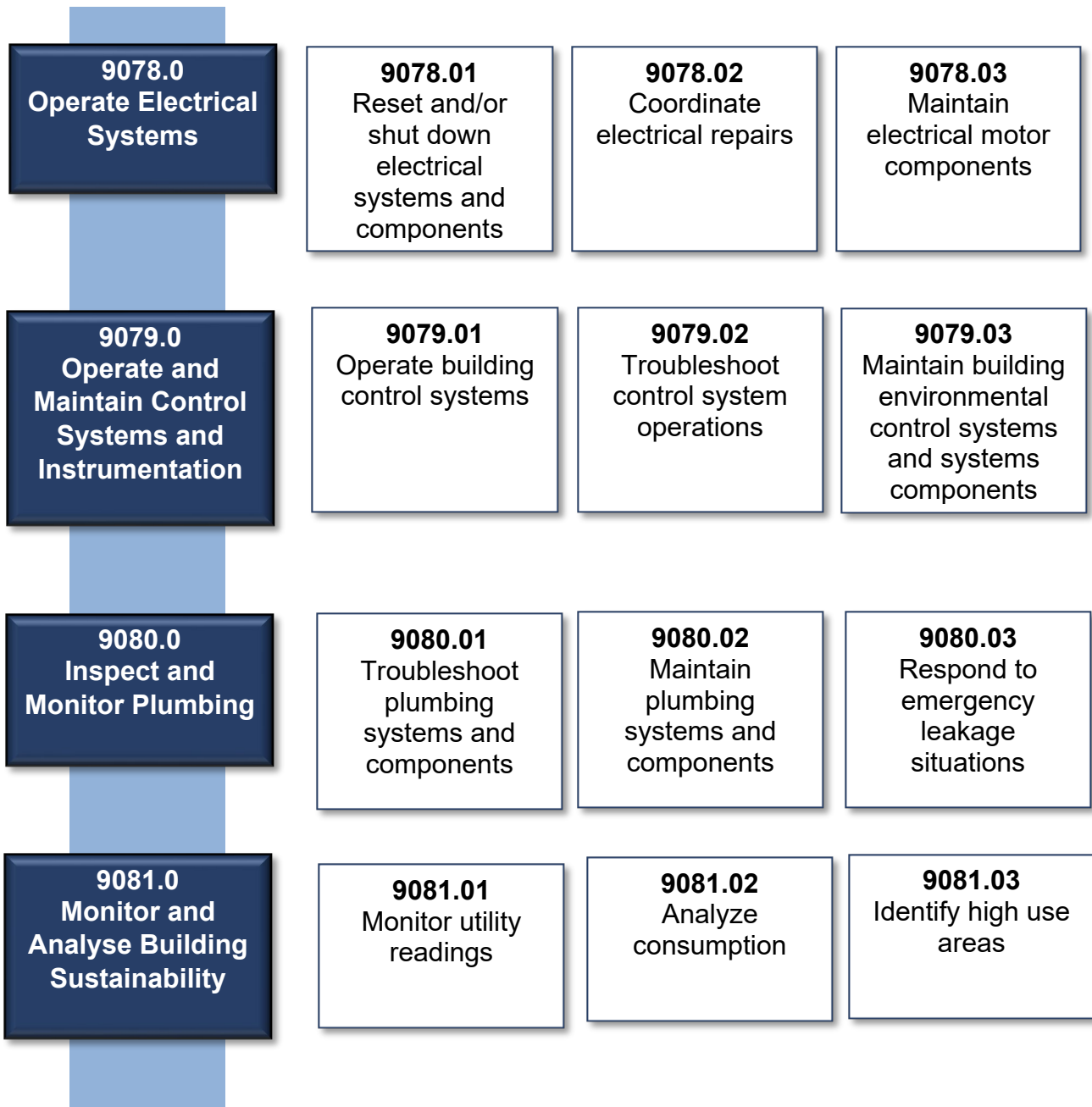
Competency Analysis Profile Facilities Technician 255B (all unshaded skill sets must be completed)



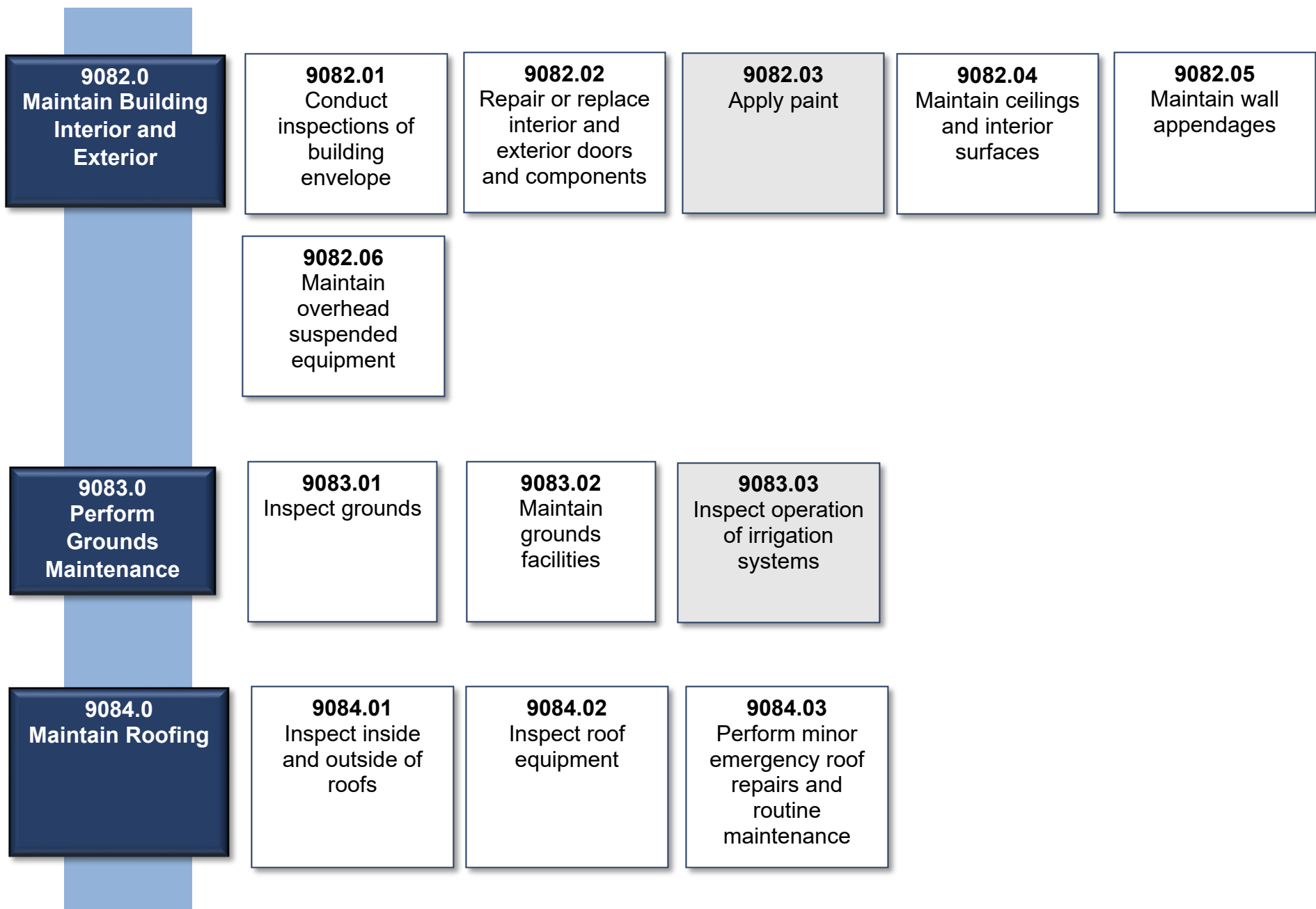
Competency Analysis Profile Facilities Technician 255B (all unshaded skill sets must be completed)



Competency Analysis Profile Facilities Technician 255B (all unshaded skill sets must be completed)



Competency Analysis Profile Facilities Technician 255B (all unshaded skill sets must be completed)



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9085.0
Establish and
Maintain
Customer Service

9085.01
Establish tenant
and customer
relationship

9085.02
Promote tenant
and customer
service

9085.03
Utilize
administrative
protocols/programs

9086.0
Coordinate
Security and Life
Safety

9086.01
Coordinate
security and life
safety

9086.02
Administer
emergency
response plan

9086.03
Maintain security
and life safety
systems

Notes

Completing Your Apprenticeship Program

Once your sponsor agrees you are competent in the required skills, your hours are complete and you have completed all the levels of classroom training required for your trade:

- ✓ Follow the completion instructions on the Completion Form (Appendix A) in the Logbook.
- ✓ Answer any questions that MLITSD staff may have and provide any additional completion documentation that may be required.
- ✓ Once completion is confirmed, MLITSD will issue you a Certificate of Apprenticeship and notify Skilled Trades Ontario.

After Your Apprenticeship

If you are in a trade with a certification exam, Skilled Trades Ontario will receive notice of your completion.

For compulsory trades, you will be issued a Provisional Certificate of Qualification which will allow you to work legally for up to 12 months until you write and pass your examination.

For a non-compulsory trade, once you pass your examination, you will be issued a Certificate of Qualification for your trade.

Preparing For Your Exam

- **To pay for a Certificate of Qualification examination, contact Skilled Trades Ontario** Client Services Department at: 647-847-3000 or toll free at 1-855-299-0028
- **To schedule your exam:** Once you have paid, contact your local Service Delivery Office to book your exam.
- **Download Skilled Trades Ontario exam preparation guide at:** [Exam Resources – Skilled Trades Ontario](#) and/or view the exam preparation guide for Red Seal trades at: red-seal.ca



[SkilledTradesOntario.ca](https://www.SkilledTradesOntario.ca)