

# **Industrial Maintenance Technician Certification Policies and Procedures for Customized Training Programs and Challenges**



Effective: July 27, 2020

***Document Uncontrolled if Printed***

This document replaces all previous versions



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## 1. Introduction

The following Policies and Procedures were collectively developed by the Technical Standards & Safety Authority (TSSA) and the Industrial Maintenance Technician Training and Certification Advisory Board (TCAB) operating under the authority of the Director of the *Technical Standards & Safety Act, 2000*. The Policies and Procedures have been adopted by TSSA Training and Certification Services.

The Policies and Procedures pertaining to Industrial Maintenance Technician programs and the method of their application and administration are set out in the following pages. The intent is to provide a set of reference points and guidelines for Accredited Training Providers, examination bodies and/or administrators involved in the training and certification process and for the Fuels Industry.

These Policies and Procedures must be followed by all Accredited Training Providers who wish to have their programs recognized/accredited by the TSSA (Ontario Regulation 215/01, Section 5).

The Policies and Procedures are subject to enhancement and revision as required.

Training Providers shall not alter any of the Policies and Procedures set out in this document without the knowledge and prior written approval of TSSA.

## 2. Historical Background

The legal requirement for a person to be certified to work on hydrocarbon fuel-fired appliances and equipment has been mandatory since the mid-1960's. The Industrial Maintenance Technician (IMT) certificate is unique when compared to all other levels of certification issued under Ontario Regulation 215/01. An IMT certificate holder is permitted to work on any fuel fired appliance or piece of equipment, regardless of input rating, provided it is within the customized scope of the holder's IMT certificate and only at locations defined by the IMT scope (typically only at the location of his/her industrial employer).

The IMT certificate has been available to industry for many years and has taken various forms over that time. It has been known as the G5 certificate, Maintenance Fitter and Industrial Maintenance Gas Technician.

Since 2001, the IMT certificate has been made available to industrial and institutional locations and further extended to include the representatives of gas equipment manufacturers. These IMT certification classifications can potentially include a scope of work on natural gas, propane, fuel oil, digester gas and/or landfill gas and coke oven gas used as a fuel.

Normally, certification as a gas or oil burner technician requires the applicant to attend a standardized training program and pass standardized written examinations and practical knowledge verification measures. These accredited training programs and subsequent TSSA examinations are wide ranging in nature and may not meet the specialized needs of various industrial sectors. To address the needs of industry and better serve the training needs of qualified candidates, TSSA offers a consultation service to facilitate and focus IMT training and certification. It is currently an optional qualification, since an applicant can follow the standardized procedure to obtain a certificate of qualification under Ontario Regulation 215/01 to become certified.

## 3. Scope of Certificate

Ontario Regulation 215/01 established the scope of certificate for an IMT certificate, as summarized below. For the most up to date legislative definitions, please refer to the regulation.



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## IMT certificate

30. (1) A person who is the holder of an IMT certificate may carry out work on the equipment for which the certificate is valid and perform any of the functions of a G.1 or OBT-1 certificate holder on which they have been trained, except the following work:

1. Install, service, remove or replace components and accessories that form part of a refrigerating or air-conditioning unit.
2. Install, service, remove or replace tanks. O. Reg. 215/01, s. 30 (1).

## Additional requirements for IMT certificate

10. (1) In addition to the requirements set out in section 5, an applicant for an IMT certificate shall meet the following requirements:

1. The applicant shall be employed in an industrial or institutional establishment equipped with fuelled appliances or by a manufacturer of fuelled appliances.
  2. The applicant shall have received training from an accredited training provider approved by the director for the work that a holder of an IMT certificate may carry out. O. Reg. 253/08, s. 8.
- (2) The employer of an applicant for an IMT certificate shall maintain records of the training given to the applicant under paragraph 2 of subsection (1) and, upon request, shall give a copy of them to an inspector. O. Reg. 215/01, s. 10 (2).
- (3) An applicant for an IMT certificate who has successfully completed a training program approved by the director on the electrical components of the equipment as they relate to the gas and fuel oil systems only may be issued a certificate with the additional designation "E". O. Reg. 215/01, s. 10 (3).
- (4) An applicant for an IMT certificate who has successfully completed a training program approved by the director on the mechanical components of the equipment only may be issued a certificate with the additional designation "M". O. Reg. 215/01, s. 10 (4).

Once the program has been approved by the TSSA Training and Certification Advisor, the scope of certificate will be signed by the TSSA Training and Certification Advisor and returned to the Training Provider. The candidate and the company representative shall sign off on the "Scope of Certificate" and the signed copy will be submitted to TSSA upon completion of the TSSA exam. An IMT certificate holder is not permitted to perform the functions of a G.1 or OBT-1 outside of the scope of certificate, as approved by TSSA.

It is the responsibility of the certificate holder and Employer to maintain records of training including a copy of the "Scope of Certificate" to ensure that the work conducted is within the scope of certificate in accordance with O. Reg 215.01 Fuel Industry Certificates requirements. This shall be readily available should a TSSA Fuels Inspector request a copy.

## 4. Certification – Rights, Privileges and Obligations

1. Once certified, Industrial Maintenance Technicians receive and are entitled to the following:
  - a. An application for renewal before the date of expiration on the certificate, which expires on the second anniversary of the holder's date of birth after the certificate has been issued.
  - b. The right to use of the phrase "TSSA Certified" in any advertising and promotion materials, but only where such use is specifically associated with the scope of the certificate. This does not include the right to reproduce or use the TSSA logo in any fashion.
  - c. Access to the Code Adoption Document, Director's Orders, Interpretation Bulletins, Advisory Bulletins, which will be available online at [www.tssa.org](http://www.tssa.org).
  - d. Access to media releases, TSSA sponsored information sessions and the *Exchange Safety Blog*.



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2. Industrial Maintenance Technicians are obligated to:
  - a. Only perform duties under the scope of their certificate.
  - b. Carry their completed and approved scope of certificate and/or have the scope of IMT certificate readily available to be produced to an Inspector or Director, if requested.
  - c. Notify the TSSA within 30 days after any change in his or her address.
    - i. TSSA is not responsible for misdirected notices or renewals resulting from the certificate holder's failure to update his or her address.
  - d. Comply with the TSS Act and its Regulations.
3. Any Industrial Maintenance Technician that finds an unacceptable condition, such as unapproved equipment shall comply with O. Reg 212/01, O. Reg 211/01 and O. Reg 213/01 with respect to immediate and non-immediate hazards.
  - a. Reference Fuels Safety Program Advisory FS-122-08. Use of Existing Unapproved Equipment (Commercial/Industrial)
4. Industrial Maintenance Technicians shall ensure they are aware of the "Maintenance vs. Modification and Upgrading" requirements established in Fuels Safety Program Advisory FS-133-08.

### 5. Training Program and Delivery Prerequisites

The following constitutes the training program delivery and instruction pre-requisites for IMT training programs.

1. To identify and justify the content and time required in a customized IMT training program, a report must be prepared by the accredited training provider or a TSSA Training and Certification Advisor, as defined in section 7.1 of this policy.
2. All IMT training proposals and programs must be submitted to TSSA for review. Accredited training providers shall submit all information outlined in section 7.1 and 7.2 of this policy for review a minimum of 30 business days prior to the scheduled course date. Requests received that do not meet this requirement, may result in a delay in processing due to the complex nature of the approval process. Written approval by TSSA is required prior to the commencement of all programs.
3. Instructors for IMT training programs must be approved specifically for the purpose by TSSA.
  - a. Instructors delivering modules of training that have a technical content (e.g. electrical, flame safeguard controls, controls, etc.) shall be certified/recognized in their occupation or trade and be able to demonstrate their knowledge of the subject matter(s) by submitting letters detailing a minimum of five years experience.
4. Applicants for IMT certification, as defined in Ontario Regulation 215/01, section 30, must have relevant experience before certification will be granted. Those who do not have hands-on experience or who will not carry out the functions of an IMT certificate holder, will not qualify for or be granted certification as an IMT.
  - a. It is recommended that individuals who do not have hands-on experience or who will not carry out the functions of an IMT certificate holders, as defined in the scope of certificate , attend a training program; however, they will not be issued IMT examination or certification at the completion of the training program.
5. Applications for an Ontario Certificate of Qualification received from an organization who is not accredited and registered with the TSSA or applications from an accredited training provider/registered instructor who have not had the specific program approved by TSSA will not be processed and the applicant will be required to re-train.



## 6. Industrial Maintenance Technician Training Modules

A breakdown of the in-class/theoretical training modules for IMT training is defined below. Accredited training providers are reminded that all curriculum modules shall be trained, unless otherwise approved by TSSA through the approval process, as outlined in section 7.3 of this policy.

Module Number	Description
1	Properties of the Fuels and Characteristics of Combustion
2	Acts, Regulations, Codes, Standards and Manufacturers' Instructions
3	Piping/Tubing Systems and Pressure Regulation
4	Industrial Appliances
5	Venting and Air Supply
6	Basic Electricity
7	Controls
8	Flame Safeguard Controls
9	Valve Trains and Burners

## 7. Training Program Approval Process

When preparing applications, accredited training providers must follow the formal approval process, as outlined below. There are five (5) stages that must be accomplished. In some cases, to progress to the next stage, formal approval from TSSA is required. Applications not meeting these requirements may be returned to the applicant or may be subject to a delay in processing.

Accredited training providers shall submit all information for review a minimum of **30 business days prior** to the scheduled course date. Requests received that do not meet this requirement, may result in a delay in processing due to the complex nature of the approval process.

Training programs previously approved that are older than five (5) years from the date of the original approval require the Training Provider to confirm the appliances and Scope of Certificate have not changed. Where equipment has changed and/or there is a desired change in the program, changes will be documented and added to an updated report.

Prior to the delivery of a training program, and at the sole discretion of TSSA, a Training and Certification Advisor may request that a previously approved program be resubmitted in accordance with the process outlined below.

### 7.1 Development of the IMT Training Requirements Report and Training Plan

An accredited IMT Training Provider must produce a standardized report outlining the following:

1. Program training objectives.
2. Proposed scope of certificate for each candidate or group of candidates.



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- a. The proposed scope of certificate must be included in the included as an independent document to ensure it can be signed and authorized by the approving TSSA Training and Certification Advisor.
- b. Requests that do not meet the scope of certificate, as outlined in Ontario Regulation 215/01 and found in the Policy, will be denied.
- c. Effective July 27, 2020 all approved scope of certificate documents must be signed and authorized by the approving TSSA Training and Certification Advisor.
3. A detailed equipment assessment:
  - a. The type and complexity of the equipment and work activities related to the scope of certificate.
  - b. Using the provided equipment list (Appendix 4), detail all equipment associated with the scope of certificate that is reflective of the current program being submitted.
4. A detailed prior learning assessment for each candidate, including prerequisite qualifications (i.e. trade certificates), including but not limited to the following:
  - a. A written assessment of each candidate's prior skills, knowledge and training.
  - b. The accredited training provider's suggested training requirements to hold the specific IMT certificate based on the above information.
  - c. Copies of prerequisite certificates of qualification and/or work experience that the candidates will meet before attending the customized training program may include:
    - i. Standardized and recognized certificates of qualifications (i.e. Gas Technician, Electrician, Millwright, Operating Engineer, etc.)
    - ii. Non-standardized trade qualifications if a curriculum outline is available upon request (i.e. In-plant electrical certification, Instrumentation Technologist, Combustion Technician)
    - iii. Training programs successfully completed (i.e. Manufacturer training)
    - iv. Amount and type of work experience related to the scope of certificate
5. Minimum hours per curriculum module of training, theory and practical.
6. Curriculum items to be excluded, included, or clarified for each training module.
  - a. Justification for the exclusion of the training modules outlined in section 7.1 of this policy must be presented as part of the report.
7. A formal training plan that aligns to the IMT training requirements report:
  - a. The training plan must clearly indicate how the training requirements identified in the accepted IMT Training Requirements Report will be achieved. The information provided may include but is not limited to the following:
    - i. The training schedule with dates and location
    - ii. The amount and type of practical training for each module
    - iii. The amount and content of theoretical training
    - iv. List of text material to be employed
    - v. Practical training tools and equipment
    - vi. Practical training exercises and practical assessment methods
    - vii. Theory examination procedures
8. Design and Proposal of Examination Questions
  - a. In most cases of IMT training, specialized equipment, controls, components, accessories and scopes of work give rise to a need for highly specialized examination questions in order to effectively test for required competency. In many cases, TSSA's standardized modular



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examination banks do not examine on specialized equipment that may be found in the IMT training objectives. Therefore, accredited training providers are called upon to design and submit proposed theoretical examination questions. It is strongly recommended that 20 questions be developed and forwarded to TSSA for each specific training module (e.g. Industrial Appliances, Controls, Flame safeguards) of the approved IMT training program. Note: the proposed examination questions must be created in alignment with *Appendix 7: Examination Question Formatting* and submitted with the Training Requirements Report and Training Plan.

- b. The IMT Training Provider has the option to request a generic examination based on the approved IMT training modules. The request must be made in alignment with the process outlined in *Appendix 6: Scheduling and Ordering TSSA Examinations*.
- c. After the IMT training proposal has been approved by TSSA, the accredited training provider shall submit proposed examination questions for the training program or only for specialized modules of the training program to TSSA for approval. TSSA will furnish the remainder of the examination content based on the approved modular content of the Training Plan. The TSSA certification examination will be based on the specific modular training content from the approved IMT training plan and effectively assess IMT candidates on knowledge and competencies required for their defined scope of work.
- d. All examination questions are to be submitted with the items outlined in Section 7.1 of this policy; however, TSSA will accept examination questions up to fifteen (15) business days prior to the scheduled examination to ensure the appropriate lead time to be entered into the examination database.

The above will result in the creation of a standardized package that includes five (5) items: three completed reports, the training plan and proposed examination questions, as outlined below:

1. IMT Training Objectives and Proposed Scope of Certificate Report
2. IMT Equipment Assessment Report
3. IMT Prior Learning Assessment or Training Prerequisite Report
4. IMT Training Plan
5. IMT Specialized Examination Questions (if applicable)

The established report templates can be found in section 11 and the appendices of this policy.

In cases where the report is developed by TSSA the training requirements are mandatory.

### **7.2 TSSA Review of the IMT Training Requirements Report, Training Plan and Examination Questions**

The review of the Training Requirements Assessment Report and Training Plan determines whether the report and the suggested training requirements are in compliance with the standards and requirements for IMT certification. Any deficiencies will be identified, and the developer of the report will be provided further information to achieve TSSA's final approval.

The review and acceptance by TSSA of the IMT Training Requirements Report and Training Plan is required before proceeding to any of the following stages. This process ensures that the standards and requirements for the customized IMT certification and the applicable training program are clearly identified.

TSSA will review all proposed examination questions prior to examination delivery and approve or revise them as required, according to the content of the approved IMT Training Plan and Scope of Certificate. As

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questions are revised, no notification will be delivered to the IMT Training Provider to ensure the security of the examination bank. Once approved, the examination will be submitted to TSSA Certification and Examination Services for coding and packaging.

A fee is charged to the person who submits the IMT Training Requirements Report, Training Plan and Examination Questions, as per the fee schedule in Section 12. This fee is charged as per the TSSA Inspection hourly rate for the time required to: review and approve of the IMT Report and all associated documents; develop an examination question bank, etc.

### 7.3 Delivery of IMT Training Program

An accredited training provider shall employ an instructor approved to deliver the IMT training program as outlined in the accepted training plan. Prior to instructing a program, Instructors shall be approved by TSSA and an approval letter will be kept on file by the training provider.

TSSA may audit the training program to determine if the accepted training plan is being delivered and the results achieve the requirements.

If an audit is conducted, audit fees are charged to the accredited training provider as per Section 12 of this policy.

### 7.4 Theory Examination(s) and Practical Assessments

Examinations on both practical and theory levels are required for certification, examinations are also a measure of how successful the delivery of training has been.

Examination of knowledge and evaluation of practical skills is applied throughout the program with each required module of training. One final theory examination or based on clusters of modules will be required for training programs.

The candidate will be evaluated on the practical skills demonstrated throughout their training.

The practical skills assessments identified in the customized curriculum for the approved IMT training plan as well as other practical assessments conducted during any training program shall be documented and signed off by the instructor.

The candidate will be required to achieve a passing grade on the TSSA examination(s) of 75% or higher and demonstrate a level of practical skills acceptable to TSSA for each applicable module of training. Failure to complete any of the required practical modules in the manner prescribed will result in a failing grade. The candidate may rewrite the theoretical examinations or be re-evaluated on those practical modules.

An impartial invigilator or a TSSA invigilator shall oversee the written examination(s). The instructor is not permitted to invigilate the examination(s). The invigilator must be identified and approved by TSSA prior to delivery of an examination.

The instructor is required to submit the grades achieved on practical examinations with the applications for certification. Failing grades must also be included with the submissions.

### 7.5 Certification Requirements

Initial certification requirements are as follows:

1. In order to obtain a certificate from the Technical Standards and Safety Authority as an Industrial

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Maintenance Gas Technician for the first time, the candidate shall:

- a. Be employed in an establishment equipped with hydrocarbon-fuelled appliances or employed by a manufacturer of hydrocarbon-fuelled appliances;
  - b. Submit an application for certification in a form designated by TSSA and accompanied by the prescribed certification fee as well as an examination fee; and,
  - c. Successfully complete an IMT training program approved by TSSA that is delivered by an accredited training provider registered with TSSA. Proof of successful completion of an approved training program shall be in the form accepted by TSSA.
2. The requirements for successful completion of an approved training program delivered through a training provider that is registered with, and accredited by TSSA are:
- a. Score 75% or greater on the TSSA examination(s);
  - b. Score 75% or greater on the practical evaluation in the applicable modules within the training program; and,
  - c. Maintain at least a 90% attendance record throughout the program training.
3. Conditions prescribed in items 1 and 2 above must be achieved in order to receive the initial certificate. Failure to meet any of the requirements will result in the rejection of the application. It is the responsibility of the applicant and his/her employer to meet the initial certification requirements.

## 8. Examination/Evaluation

An examination candidate (a “candidate”) is encouraged to review the ***TSSA Certification Examination Preparation Guide***, available at [www.tssa.org](http://www.tssa.org), for detailed information on the examination process, scheduling, examination disability accommodation requests, ‘what to expect on the examination day’, prohibited and non-prohibited materials, etc.

When applying for or writing an examination, a candidate should be aware of the following:

- a) Program participants will be required to complete a written/theoretical, certification examination at the conclusion of their training.
- b) An applicant for a certificate of qualification who fails to pass one of their three attempts on an examination shall not schedule a re-examination within the 30-day period that follows the date of the examination failed by the applicant.
- c) A candidate will be evaluated on the practical skills demonstrated throughout their training (if applicable). Practical evaluation may be applied through either hands-on, written and/or combination of a written and oral examination as approved in the accredited training providers IMT Training Requirements Report and Training Plan. However, the majority of all practical evaluation shall be in the form of hands on demonstration of skills using equipment appropriate to the skills being tested.
- d) Second and third attempts at the practical evaluation for certification requirements may be requested from the accredited IMT Training Provider or TSSA Training and Certification Services.

The examination process is solely administered by TSSA. As applicable, TSSA will customize an IMT examination to ensure that the content aligns with the modular training, outlined in the approved assessment report, provided the accredited training provider has provided the mandatory examination questions based on the specialized IMT equipment.

For more information on the Examination Scheduling/Ordering process, see Appendix 7: Scheduling and Ordering TSSA Examinations.



## **9. Certificate Renewal Process**

The renewal period for an IMT certificate is two (2) years, per Ontario Regulation 215/01. A cancellation of a certificate occurs when an individual fails to renew their certificate after it has been expired for twelve (12) months. The policies pertaining to renewals are as follows:

1. A certificate holder (any class) that fails to renew their certificate on time will have their certificate placed in suspension for a period of twelve months or until the renewal requirements have been met.
2. Certificate holders who have not renewed their certificate for a period longer than twelve months, and are requesting a re-instatement, will be considered as new applicants and may be subject to the same certification requirements as a new applicant, i.e. re-training through an Accredited Training Provider, qualifying examination(s), and/or practical skills evaluation.

## **10. Requirements to Transfer/Change the Scope of an IMT Certificate**

An applicant wishing to transfer an existing IMT certificate to become valid at another establishment or another appliance manufacturer must meet the following requirements:

1. The applicant must have held a valid IMT within two (2) years of the request for transfer.
2. The applicant must have completed a formal training program, administered by an accredited training provider on the equipment with respect to the scope of certificate which is being applied for. The scope of certificate, which is being applied for, shall also be provided. Note: the scope must be authorized by a TSSA Training and Certification Advisor.
  - a. Note: this requirement only applies to training programs that have been previously approved, as outlined in Section 7.1 of this policy.
  - b. Where there has been no previous training program, a new assessment plan will be provided to TSSA including Appendix 4 Equipment Assessment, training plan, new scope, and designated module training hours. Method of testing theory/practical outcomes for individual.
  - c. Where there may be too much contrast between the previous company and the transfer company, the transfer may be declined, and the trainee will be considered a new IMT. The IMT transfer company will be treated as a new IMT certification.
3. An Application for an Ontario Certificate of Qualification along with the certification fee must accompany the request for transfer, along with the completed and authorized scope of certificate.

A candidate wishing to change the scope of duties of an existing IMT certificate must meet the following requirements:

1. The candidate must hold current/valid IMT certificate in order to request a change to the scope of certificate.
2. The candidate must have completed a formal training program, administered by an accredited training provider on the equipment with respect to the scope of certificate which is being applied for. The scope of certificate, which is being applied for, shall also be provided. Note: the scope must be authorized by a TSSA Training and Certification Advisor.
  - a. Note: this requirement only applies to training programs that have been previously approved, as outlined in Section 7.1 of this policy.



3. A letter from the employer must accompany the request for change in the scope of duties of the IMT and that letter must state that the training required by this subsection has been successfully completed. The scope of certificate, which is being applied for, shall also be itemized.

The employer of a prospective applicant for a transfer request or scope change request of an IMT scope of certificate shall maintain records of the training referred to in paragraphs 1 and 2 above and, upon request, shall provide a copy of the same to a TSSA Training and Certification Advisor, Inspector or Director.

## 11. Industrial Maintenance Technician Templates

IMT training program templates have been established and must be used by all accredited training providers when programs are submitted to TSSA, as outlined in section 5 of this policy. Three template forms, as outlined below, are available for use by accredited training providers wishing to conduct IMT assessments leading to the IMT Training Requirements Report.

1. IMT Training Objectives Template (Appendix 1)
2. Scope of Certificate for Customized IMT Certification (Appendix 2)
3. IMT Equipment Assessment Form Template (Appendix 3)
4. Prior Learning Assessment or Training Prerequisite Form Template (Appendix 4)
5. IMT Training Requirements Form Template (Appendix 5)

## 12. Fuels Safety Certification Fee Schedule (Regulation 215/01)

The fuels safety fee schedule is available at [www.tssa.org](http://www.tssa.org). The services, as outlined in the table below, are subject to the posted rates in the fee schedule for the

Practical Skills Assessment/Audit: <ul style="list-style-type: none"> <li>· Reference fee schedule line: <i>Hourly labour rate – excess hours – authorization holders (approximately 3 hours)</i></li> </ul>
Examination and Certification Processing: <ul style="list-style-type: none"> <li>· Initial Certificate and Renewal, reference fee schedule line: <i>Certificates – initial and biennial renewal</i></li> <li>· Challenge Examination, reference fee schedule line: <i>Challenge Examination (plus certificate fee)</i></li> <li>· Examination Rewrite, reference fee schedule line: <i>Other Examination (plus certificate fee)</i></li> </ul>
Examination Sitting Fee: <ul style="list-style-type: none"> <li>· Reference fee schedule line: <i>Invigilation (one required per 25 students)</i></li> </ul>
TSSA IMT Assessment Report/Examination Question Development: <ul style="list-style-type: none"> <li>· The fee for the assessment report and examination question development will vary with the complexity of the industry and the number of IMT candidates assessed.             <ul style="list-style-type: none"> <li>○ Reference fee schedule line: <i>Hourly labour rate – excess hours – authorization holders</i></li> </ul> </li> </ul>



### Appendix 1: IMT Training Objectives Template

Industry(company): \_\_\_\_\_

Location: \_\_\_\_\_

Industry (company) Representative(s) Name and Title:

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

Assessment Performed by: \_\_\_\_\_

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

**Candidates' Names**                      **Prior Learning Assessment Submitted or Documented Prerequisites Met**

_____	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>
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_____	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>

The scope of certificate is to include and be limited to the following item(s):

The following sites (or manufactured appliance models): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Complete installation of piping systems.

Service, repair, and replacement of existing piping systems but not new installations.

The service, maintenance, repair, and replacement of all appliances located on site or manufactured by the candidate's employer that are fired on natural gas and/or propane and/or fuel oil and/or \_\_\_\_\_ (identify other fuels).



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Note: stroke out any fuels that do not apply.

- The service, maintenance, repair, and replacement of only the following listed appliances located on site or manufactured by the candidate's employer that are fired on natural gas and/or propane and/or fuel oil and/or \_\_\_\_\_ (identify other fuels).

Note: stroke out any fuels that do not apply.

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- Only the following specific task(s):

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## **Appendix 2: Scope of Certificate for Customized IMT Certification Template**

Scope Name:

Scope of Certification for:

Establishment or Appliance Manufacturer where the certificate applies (including address):

Date of Training Program or Challenge Completion:

TSSA Training and Certification Advisor:

The scope of certificate for an IMT certificate holder as established in Ontario Regulation 215/01, Fuels Industry Certificate Regulation made pursuant to the *Technical Standards and Safety Act* outlines the work allowed by a full IMT certificate holder. The training program completed by the subject certificate holder, as outlined below, further defines this general scope of certificate.

The customized certificate allows the holder to service, repair and maintain the following natural gas/ propane/ fuel oil/ other fuel-fired appliances at (or manufactured by):

- 
- 
- 
- 
- 

The certificate does not authorize the holder to conduct the following activities or to work on the following appliances since these were excluded from the customization assessment and/or training:

- 
- 
- 
- 
- 

It is the responsibility of the undersigned certificate holder and [Employer Name] to maintain records of training and to ensure that the work conducted is within the scope of certificate.

Signature of [Certificate Holder Name]:

Printed Name and Position of Company Representative:

Signature of [Company Representative]:

Signature of TSSA Training and Certification Advisor:



### Appendix 3: IMT Equipment Assessment Form Template

Industry: \_\_\_\_\_

Location: \_\_\_\_\_

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

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

Overview of equipment that will be addressed in the training program and scope of certificate for ALL candidates or only the following candidates: \_\_\_\_\_

**1. Fuel Types**

- Natural Gas       Propane       Fuel Oil       Landfill Gas
- Digester       Coke Oven Gas       Blast Oven Gas       Other: \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_

**2. Boilers**

- Steam       Water
- Packaged       Site-Built
- Fire-tube       Water-tube       Sectional       Fin-tube
- < 400 MBtuh       400 to 1,000 MBtuh       > 1MMBtuh

Flame Sensor:  UV     Flame Rod     T/C     Photo cell     None

Flame Safeguard Control (FSG): \_\_\_\_\_

Number, Makes / Models, and Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



# Industrial Maintenance Technician Certification Policies and Procedures

### 3. Domestic Water Heating Appliances

Underfire Storage Water Heaters       Instantaneous Water Heaters

< 400 MBtuh       > 400 MBtuh

Flame Sensor:  UV    Flame Rod    T/C    Photo cell    None

Flame Safeguard Control (FSG): \_\_\_\_\_

Number, Makes / Models, and Comments: \_\_\_\_\_

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

### 4. Piping and Pressure System:

Maximum Building Supply Pressure: \_\_\_\_\_

Approximate size of piping system (Total length and range of diameters):

< 500 feet (160 m)       < 5000 feet (1600 m)       > 5000 feet (1600 m)

2" (5 cm) OD and less       > 2" OD (5 cm)       > 8" OD (20 cm)

Piping /Tubing Types (check all applicable):

Copper       Threaded Steel       Welded Steel       Plastic

Flex connectors       Hose       Other: \_\_\_\_\_

Locations:

Underground Steel Piping:      Approx. length: \_\_\_\_\_

Underground Plastic Piping:      Approx. length: \_\_\_\_\_

Aboveground Piping Only:      Approx. length: \_\_\_\_\_

Approximate number of system regulators:  < 5       6 – 20       > 20

Makes/Models: \_\_\_\_\_

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

Meters other than utility meter:

bellows       rotary       orifice       turbine

Comments concerning piping system: \_\_\_\_\_

\_\_\_\_\_



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## 5. Process Appliances (Add as many pages as necessary)

Name/Type: \_\_\_\_\_

Number of this type: \_\_\_\_\_

< 400 MBtuh       > 400 Mbtuh      Fuel(s): \_\_\_\_\_

Appliance & Pilot Regulators Makes/Model: \_\_\_\_\_

Inlet Pressure: \_\_\_\_\_ Manifold Pressure: \_\_\_\_\_

Safety Shut-off Valve(s) –SSOV:

Make(s): Main: \_\_\_\_\_ Pilot: \_\_\_\_\_

Model(s): Main: \_\_\_\_\_ Pilot: \_\_\_\_\_

Configuration / Comments: \_\_\_\_\_

\_\_\_\_\_

Input Control System:

Manual       On-Off SSOV only       Orifice Valve(s)

Zero Governor Make/Model: \_\_\_\_\_

Air/Gas Ratio Regulator Make/Model: \_\_\_\_\_

Modulating Valve Make/Model: \_\_\_\_\_

Safety Control Types:

High Temperature, make/model: \_\_\_\_\_

High Pressure, make/model: \_\_\_\_\_

Hi/Low Gas Pressure, make/model: \_\_\_\_\_

Combustion Air Proving, make/model: \_\_\_\_\_

Vent Proving, make/model: \_\_\_\_\_

Burner(s) Number: \_\_\_\_\_ Individually Controlled?    Yes    No

Make/Model: \_\_\_\_\_

Type:    Atmospheric    Raw Gas    Nozzle Mix    Premix

Flame Sensor:    UV       Flame Rod    T/C       Photo cell    None

Flame Safeguard Control (FSG) Make/Model: \_\_\_\_\_

Operating Control Type: \_\_\_\_\_

Venting System: \_\_\_\_\_

Unusual Features or Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



**6. Space Heating Appliances**

Unit Heaters                       Forced Air Furnaces

< 400 MBtuh                       > 400 MBtuh

Number, Makes / Models, Input, and Comments: \_\_\_\_\_

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

Infrared Tube Heaters               High-intensity Infrared Heaters

< 400 MBtuh                       > 400 MBtuh

Number, Makes / Models, Input, and Comments: \_\_\_\_\_

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

Indirect-Fired Makeup Air Heaters     Direct Fired Makeup Air Heaters

< 400 MBtuh                       > 400 MBtuh

Number, Makes / Models, Input, and Comments: \_\_\_\_\_

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

Roof-top Heating/Cooling Units       Construction Heaters

< 400 MBtuh                       > 400 MBtuh

Number, Makes / Models, Input, and Comments: \_\_\_\_\_

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

General comments concerning space-heating equipment: \_\_\_\_\_

\_\_\_\_\_



# Industrial Maintenance Technician Certification Policies and Procedures

**7. Other appliances that do not fall within the above categories:**

Name/Function: \_\_\_\_\_

Description: \_\_\_\_\_

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Name/Function: \_\_\_\_\_

Description: \_\_\_\_\_

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Name/Function: \_\_\_\_\_

Description: \_\_\_\_\_

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## **Appendix 4: Prior Learning Assessment or Training Prerequisites Form Template**

The purpose of this document is to identify the prior skills and knowledge of each IMT candidate requesting an exemption from all or parts of the standardized IMT training requirements applicable to the customized scope of certificate for a specific establishment or appliance manufacturer. The identified skills and knowledge level(s) must justify any requested reduction in the standardized training requirements.

Two methods can be employed for identifying the prior skills and knowledge of IMT candidates.

The employer may state the prerequisite certificates of qualifications and/or work experience that the candidates will meet before attending the customized training program or challenging the training requirements. The prerequisites may include:

- Standardized and recognized certificates of qualifications (i.e. Gas Technician, Electrician, Millwright, Operating Engineer, etc.)
- Non-standardized trade qualifications if a curriculum outline is available upon request (i.e. In-plant electrical certification, Instrumentation Technologist, Combustion Technician)
- Training programs successfully completed (i.e. Manufacturer training)
- Amount and type of work experience related to the scope of certificate (i.e. candidates will have 5 years' experience in the maintenance department).

Copies of the above certificates and training must be submitted with the Training Requirements Report to TSSA. The employer must provide a letter identifying the prerequisite(s) and stating that only candidates who meet the prerequisite(s) will attend the customized training program or challenge the training requirements.

The second method of identifying the prior skills and knowledge of IMT candidates is to conduct a prior learning assessment of each candidate using either the forms provided by TSSA or equivalent methods acceptable to TSSA. The prior learning assessment documents supplied by TSSA require the applicant to identify their individual qualifications, skills, and knowledge as well as conduct a self-assessment related to the training objectives.



## Appendix 5: IMT Training Requirements Form Template

This document identifies the minimum hours of training and outlines the focussed training topics per module. These requirements must be justified by the Training Objectives and Customized Scope of Certificate, the Equipment Assessment, and the prior learning assessment or Training Prerequisites.

Company: \_\_\_\_\_ Assessment Date: \_\_\_\_\_

IMT Candidates (list):

Training Requirements and Hours for Customized IMT Certification

- |  |                                    |
|--|------------------------------------|
| Module 1: Fuel Properties & Combustion   | Module 6: Electricity              |
| Module 2: Acts, Regulations and Codes    | Module 7: Controls                 |
| Module 3: Piping and Pressure Regulation | Module 8: Flame Safeguard Systems  |
| Module 4: Industrial Appliances          | Module 9: Burners and Valve Trains |
| Module 5: Venting and Air Supply         |                                    |

Note: each module should carry both theory and practical training, as applicable. Please complete the theory hours in the column marked "T" and practical training in column "P".

IMT Candidates	Group	Module Number & Theory/Practical Training Hours																				
		1		2		3		4		5		6		7		8		9		Total		
		T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	



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The customized scope of certificate, equipment assessment, and Prior Learning Assessments (PLA) or training prerequisites justify the following exemptions and points of clarification related to the standardized IMT curriculum:

Curriculum Item	Complete Exemption	Partial Exemption or Clarification	Justified by:		
			Scope	Equipment	Prior Learning Assessment



## **Appendix 6: Scheduling and Ordering TSSA Examinations**

The following is a high-level guideline of the steps Accredited Training Providers must follow to schedule and/or order certification examinations administered by the Technical Standards and Safety Authority (“TSSA”). This guideline forms the policy and procedural requirements for examinations that result in the issuance of an authorization under a Regulation made by the *Technical Standards and Safety Act, 2000*. Note: this guideline is subject to revision, and the guideline published by TSSA for the purposes of the *TSSA Examination Invigilation Policies and Procedures* supersedes the information contained herein.

### Step 1: Class List Template

- a. Download and complete the “Class List Template” provided by TSSA.
  - o Note: mandatory sections are identified accordingly, including but not limited to invigilator name, examination address, examination candidate name, address, date of birth, etc.

### Step 2: Submit a formal examination request to TSSA

- a. Submit a formal examination request, at least 15 business days prior to the proposed examination date, via email to: [certandexams@tssa.org](mailto:certandexams@tssa.org), including the following information:
  - o The date, time and location of the proposed examination;
  - o The type(s) of examination requested;
  - o The completed Class List, in the format published by TSSA; and if applicable,
  - o A copy of the completed Industrial Maintenance Technician (“IMT”) Assessment Report, including the approved scope of certification.
- b. Accredited Training Provider Invigilator Requests:
  - o The Accredited Training Provider can appoint an Examination Invigilator provided:
    - i. they are not an instructor,
    - ii. have never held an authorization/certificate issued under a Regulation made by the *Technical Standards and Safety Act, 2000*, and
    - iii. they do not have experience or practical knowledge in an industry regulated by TSSA. Note: under no circumstances will an instructor be permitted to invigilate an examination.
  - o For each examination, the Examination Invigilator must complete and submit the “*TSSA Examination Administration and Invigilation Agreement Form*” as part of the formal examination request. All Examination Invigilator requests will be reviewed and assessed by TSSA. An individual cannot act as an invigilator without prior approval from TSSA.
  - o For examination requests with 25 or more candidates, multiple invigilators will be required.
- c. TSSA Invigilator Request (as applicable):
  - o The Accredited Training Provider must formally request a TSSA invigilator for the examination and must provide alternative examination date(s) should a conflict exist with the preferred examination date. For examination requests with 25 or more candidates, multiple invigilators will be required. Invigilation fees are outlined in the Fee Schedule available at [www.tssa.org](http://www.tssa.org).

### Step 3: Confirmation



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- a. A Certification and Examinations representative will provide confirmation of receipt or a list of deficiencies for resolution. Incomplete requests will not be processed, and the Accredited Training Provider will be required to resubmit the request.

Step 4: Revisions or Changes

- a. TSSA will accept changes or revisions to the Class List by the Accredited Training Provider, so long as the changes are submitted in writing via: [certandexams@tssa.org](mailto:certandexams@tssa.org), no later than 10 business days before the scheduled examination.
- b. Where a candidate cancels or attempts to re-schedule a confirmed examination within 10 business days, the examination fee submitted will be forfeited and a new application and payment must be submitted to TSSA.

Step 5: Return of Examinations and Applications:

- a. The Accredited Training Provider is responsible for returning the following via courier to TSSA, on the same business day or no later than the next business day following the examination:
  - o The completed examinations and all contents forwarded by TSSA;
  - o The certification, examination and invigilation (as applicable) pre-payment. Fees are outlined in the Fee Schedule available at [www.tssa.org](http://www.tssa.org).
  - o The completed *Application for an Ontario Certificate of Qualification* for each examination candidate named on the Class List; and if applicable,
  - o The *Authorization to Release Examination Results*, completed and signed by each examination candidate.
- b. All costs associated to the return of the examinations are the responsibility of the Accredited Training Provider.



## Appendix 7: Examination Question Formatting

When developing examination questions accredited training providers are reminded of the acceptable formatting principles for examination question creation. All questions must be submitted in Microsoft Word (.docx) format, and no other question types or formats will be accepted.

### Multiple Choice:

Training Module #, Question #: [Question Text]  
[distractor, answer]  
[distractor, answer]  
[distractor, answer]  
[distractor, answer]

Answer: [insert correct response (i.e. a, b, c, or d)]  
Code Reference Section: [insert code section]

### True/False:

Training Module #, Question #: [Question Text]

Answer: [T or F]  
Code Reference Section: [insert code section]

### Question Format:

Each question should be in interrogative format and contain “How”, “What”, “When” or “Where”. We do not use fill in the blank questions.

### Answer/Distractor Sequencing

When the choices are quantities, present them in either ascending or descending order.

#### WRONG

Brake calipers should be adjusted to what tolerance from the rotor?

- A) 6 mm (0.25 in.)
- B) 13 mm (0.5 in.)
- C) 10 mm (0.375 in.)
- D) 25 mm (1.0 in.)

#### CORRECT

Brake calipers should be adjusted to what tolerance from the rotor?

- A) 6 mm (0.25 in.)
- B) 10 mm (0.375 in.)
- C) 13 mm (0.5 in.)
- D) 25 mm (1.0 in.)

### Put Repeating Information in the Stem of the Question

When information is repeated for all choices, put it in the stem of the question.

#### WRONG:

To position the renewal sticker,

- A) clean the license plate and place the sticker on the rear plate on the lower right
- B) clean the license plate and place the sticker on the rear plate on the lower left
- C) clean the license plate and place the sticker on the rear plate on the upper right
- D) clean the license plate and place the sticker on the rear plate on the upper left

#### CORRECT:

To position the renewal sticker, clean the license plate and place the sticker on the rear plate on the

- A) lower right
- B) lower left
- C) upper right
- D) upper left