

MINISTRY OF TRAINING, COLLEGES AND
UNIVERSITIES

APPRENTICESHIP INNOVATION FUND

July 28, 2008

CALL FOR PROPOSALS

FOR

**PROJECTS TO SUPPORT
APPRENTICESHIP IN-SCHOOL TRAINING**

Issued Date: July 28, 2008

Closing Date: September 5, 2008 at 4 p.m.

Submit Proposals to: Ministry of Training, Colleges and Universities
Programs Branch
23rd Floor, Mowat Block
900 Bay Street
Toronto, ON M7A 1L2

Attn: Terry Hesketh

Tel: (416) 327-6491

Fax: (416) 326-5653

E-mail: terry.hesketh@ontario.ca

TABLE OF CONTENTS

| | |
|---|----|
| 1. Purpose | 1 |
| 2. Background | 1 |
| 3. Objectives | 1 |
| 4. Projects Requested | 2 |
| 5. Project Proposal Outline | 4 |
| 6. Submission Requirements and Proponent Questions | 8 |
| 7. Procedures for Development of Curriculum Standards & Exemption Tests.... | 8 |
| 8. Final Project Requirements for Curriculum Standards & Exemption Tests... | 10 |
| 9. Eligible Costs | 11 |
| 10. Proposal Assessment Process | 12 |
| 11. Program Legal Requirements | 14 |
| Appendix A – Reference Form | 16 |
| Appendix B – Budget Template | 17 |
| Appendix C – Proposal Checklist Form | 19 |
| Appendix D – Return Label | 20 |
| Appendix E – Individual Project Requirements | 21 |

ATTACHMENTS

1. Procedures for the Development of Apprenticeship Curriculum Standards and Exemption Tests (see 7 above)

APPRENTICESHIP INNOVATION FUND CALL FOR PROPOSALS

1. PURPOSE

The Ministry of Training, Colleges and Universities (MTCU) is seeking proposals from organizations with expertise in the development of apprenticeship in-school curriculum and exemption test development to lead projects to develop curriculum standards and exemption tests associated with Ontario's in-school apprenticeship training system.

2. BACKGROUND

The Ministry of Training, Colleges and Universities administers Ontario's apprenticeship system through the *Apprenticeship and Certification Act, 1998*, and the *Trades Qualification and Apprenticeship Act*. Each Act covers a respective grouping of trades.

Between 80% and 90% of apprenticeship training takes place on the job. The balance of the training is classroom instruction, primarily delivered at colleges of applied arts and technology, although some other delivery agents also provide instruction. On average, apprentices who have in-school training complete about 24 weeks of in-school training over the duration of their apprenticeship.

The Government of Ontario is committed to expand the apprenticeship system by increasing the number of new entrants to apprenticeship programs. The expansion of the apprenticeship system will increase the supply of skilled labour and support job creation in existing trades and through the inclusion of new trades in the system.

The Apprenticeship Innovation Fund (AIF) supports the development of high-quality curriculum for new and existing apprenticeship programs the development of exemption tests and other tools associated with Ontario's in-school apprenticeship training.

3. OBJECTIVES

The Apprenticeship Innovation Fund has the following objectives:

- Develop new training programs, including standards and curricula, for new trades or occupations;

- Ensure apprenticeship program materials, including standards and curricula, are outcomes-based and are adapted to new technologies;
- Develop innovative, flexible delivery methods in response to industry and apprentice needs;
- Foster greater integration of apprenticeship in-school programs with postsecondary courses.

4. PROJECTS REQUESTED

The following chart identifies specific projects which the Ministry is seeking to develop. Proponents must bid on the **entire** project and can bid for more than one project (a separate proposal per project). Each submission must specify the applicable project number.

Project submissions that exceed the maximum project cost will not be considered.

For development of new curriculum standards, there is a limit to the duration of in-school training that MTCU is able to support. The duration of the in-school component for new curriculum standards will require approval by MTCU staff. Please work with MTCU Trades Program Coordinator to achieve agreement on an appropriate duration for a specific trade or occupation. Ministry approval will be confirmed in the project contract.

For updating of curriculum standards, there will be no increase to the current approved in-school duration without prior approval by MTCU.

A consortium of organizations with relevant expertise is acceptable, provided there is a detailed rationale, one lead Proponent who is the legal entity responsible for the proposal, and a written commitment from each college/training delivery agent/organization confirming the allocation of staff and time.

It is anticipated successful proponents will be able to start their projects by mid October, 2008.

4. PROJECTS REQUESTED (CONT'D)

There are eleven discrete projects listed in this call with some having multiple trades and requirements:

- Development/revision of curricula (4 projects, 9 trades)
- Development/revision of curricula and exemption tests (3 projects, 3 trades), and
- Development/revision of exemption tests (4 projects, 5 trades)

Other projects not listed below, that meet program objectives, will also be considered. Please contact the AIF Coordinator listed on the cover page to discuss project ideas.

Curriculum Standards and Exemption Tests

| # | Trade | Project Deliverables | Cost | Page |
|-----------------------|--|---|--|------|
| Curricula Only | | | | |
| 1 | Automotive Service Tech. 310S | Revisions to existing curricula levels 1, 2 & 3. See description in Appendix E. | \$45,000 | 21 |
| 2 | Agricultural Equip. Tech. 425A | Revision to existing curricula level 3. See description in Appendix E. | One contract with a value of between \$150,000 and \$170,000 to cover all four trades | 22 |
| | Commercial Vehicle & Equipment includes: Agricultural Equip. Tech 425A, Heavy Duty Equip. Tech 421A, Powered Lift Truck Tech. 282E, Truck & Coach Tech. 310T | Revisions to common core level 1. See description in Appendix E. | | |
| | Commercial Vehicle & Equipment includes: Agricultural Equip. Tech 425A, Heavy Duty Equip. Tech. 421A | Revisions to common core level 2. See description in Appendix E. | | |
| | Heavy Duty Equipment Tech. 421A | Revisions to curricula level 3. See description in Appendix E. | | |
| | Powered Lift Truck Tech. 282E | Revisions to curricula levels 2 & 3. See description in Appendix E. | | |
| | Truck & Coach Tech. 310T | Revisions to curricula levels 2 & 3. See description in Appendix E. | | |
| 3 | Horse Groom 600H | Revisions to curricula levels 1 & 2. See description in Appendix E. | \$35,000 | 25 |
| 4 | IT Technical Support Agent 634A, IT Inside Sales Agent 634D & IT Customer Care Agent 634E | New curricula common core and levels 2 & 3 for all three trades. See description in Appendix E. | \$75,000 | 26 |
| # | Trade | Project Deliverables | Cost | Page |

| Both Curricula and Exemption Tests | | | | |
|---|--|---|----------|----|
| 5 | Architectural Glass & Metal Tech. 424A | Revisions to curricula levels 1, 2 & 3 and exemption tests levels 1, 2 & 3. See description in Appendix E. | \$75,000 | 28 |
| 6 | Pressure Systems Welder | Revisions to curricula level 1 and exemption test level 1. See description in Appendix E. | \$40,000 | 29 |
| 7 | Terrazzo Tile & Marble Setter 241A | Revisions to curricula levels 1 & 2 and new exemption tests level 1 & 2. See description in Appendix E. | \$65,000 | 30 |
| Exemption Tests Only | | | | |
| 8 | Dairy Herdsperson 640D | New exemption tests levels 1 & 2. See descriptions in Appendix E. | \$30,000 | 31 |
| 9 | Plumber 306A | Revision to exemption tests levels 1, 2 & 3. See descriptions in Appendix E. | \$30,000 | 32 |
| 10 | Railway Car Tech. 268R | New exemption tests levels 1, 2 & 3. See descriptions in Appendix E. | \$35,000 | 33 |
| 11 | Refrigeration & Air Conditioning 313A Residential Air Conditioning 313D | Revision to exemption tests common core and levels 2 & 3 Revision to exemption test common core and level 2. See descriptions in Appendix E. | \$45,000 | 34 |

5. PROJECT PROPOSAL OUTLINE

Proponents must submit one unbound original, suitable for photocopy; plus two copies of the proposal and one electronic version on CD Rom or via e-mail in a format that meets Ministry Information Technology standards is virus-free and is organized such that it can be transferred readily to CD. Proposals should contain the following information, and **should not exceed 10 pages**.

1) Project Description and Development Plan

The project description includes a comprehensive project plan, which includes the project purpose and work plan with a detailed description of key deliverables, timelines, costs and responsibilities, as well as the project validation and evaluation processes.

The project description and development plan must be described under the following sections:

a. Project Name

b. Lead Organization Name and Partners

- If a consortium is proposed, please list the colleges/training delivery agents/organizations, the names of individuals committed to the project and their roles.

c. Contact Person for the project and back-up Contact Person

- Name, title
- Organization
- Mailing address
- Telephone, fax and e-mail address

d. Legal Responsibility

Provide one original letter or statement, signed by a senior representative, confirming the organization will take legal responsibility for the project if it were approved for funding.

e. Executive summary of the project (2 pages or less) to include project name, table of contents, partners, if applicable, description of results to be achieved by key deliverables, timelines and associated budget.

f. Project Plan

The Project Plan must include:

- all work, broken down into key deliverables, in a chronological timeline.
- key milestones/deliverables for curriculum standards must include submission of a signed contract and supporting documents, draft learning outcomes, draft curriculum standards, industry approvals and final reporting.
- key milestones/deliverables for exemption tests must include submission of a signed contract and supporting documents, an exemption test exam plan, exemption test item bank, two sets of questions per level, validation and final reporting.

Projects that do not include evaluation, validation, and revisions to content as required will not be considered complete products.

Please see attached budget template (Appendix B) for all projects.

Completion of this template is a requirement of the submission.

2) Project Structure

a. Organizational structure

Identify all staff to be involved in the project, and describe each person's role and experience. **(If the project is being developed by a consortium of colleges/TDAs/organizations, please identify all staff involved per institution.)**

Include identification of outsourced individuals, subject matter expertise, technical experts and if the individual is participating on the Project Team and/or Project Steering Committee.

The Project Team and Project Steering Committee must include the MTCU Trade Program Coordinator. MTCU reserves the right to make changes to the project structure. Individual titles must align with information provided in the project budget (see Appendix B).

b. Expertise of Project Team and Steering Committee

Proponents must demonstrate their ability to successfully manage and produce an effective product of high quality. Proposals must describe previous related products the proponent has successfully managed and developed. A copy of product may be requested during evaluation.

Proponents must have experience in developing curriculum and exemption test products, and with skills training.

Demonstration of expertise and past performance must include but is not limited to references and previously developed products:

Proponent must supply contact information for 3 external references (non-Ministry) as per the attached Appendix A. The external references you choose should be knowledgeable about your organization, your work and your proposal. They may be experts in your field or members of other organizations you have worked with, and/or belong to other agencies from which your organization has received funding. Telephone numbers and if available, e-mail addresses are required. Please give your reference a copy of your application in advance so they can discuss it when contacted.

Proposals must describe previous related products (undertaken in the last five years) that the proponent has successfully managed and developed. This must include an indication of the magnitude and project outcome. A copy of product may be requested during evaluation. The Ministry reserves the right to contact other references, even if not supplied by the proponent.

- 3) **Project Team** - Indicate the project staffing structure and provide supporting information regarding the project team's related experience and technical expertise. This should include the Ministry's Trade Program Coordinator, or identify a method of ongoing communication. The individual skills and experience must represent current subject matter expertise, relevant project management experience, and experience in the relevant skills training development processes. At least one member of the project team must represent a Training Delivery Agent (TDA) approved for the trade, as appropriate. A summary of relevant experience for each Project Team member must be included, or, if the individual is not yet identified, include a summary of minimum experience and qualifications that is required.
- 4) **Project Steering Committee** - Members must have relevant experience and expertise in relation to current trade practices and must include the Ministry's Trade Program Coordinator, appropriate representation from industry and apprenticeship in-school training deliverers. Proposals must include a summary of the Project Steering Committee credentials as project managers, with skills training experience.

Note that if not currently available, the names of the Project Team and Steering Committee members must be provided upon contracting, and any changes must be submitted in writing (e-mail) to the AIF Coordinator for Ministry approval.

5) **Budget**

All proposals must include a detailed budget based on the attached template (Appendix B). If the proposal is being submitted by a consortium of colleges/TDAs/organizations, please identify all staff responsible for each key deliverable identified.

The budget must include a breakdown of project costs based on the eligible costs as outlined in Section 9, Eligible Costs. Costs must be competitive and provide good value.

Contract payments will be made upon receipt and acceptance of deliverables as negotiated.

Post contracting, any requested changes to the budget must be submitted in writing (e-mail) to the AIF Coordinator for Ministry pre-approval.

6. SUBMISSION REQUIREMENTS AND PROPONENT QUESTIONS

The Proponent shall submit one unbound original, suitable for photocopy; plus two copies of the proposal and one electronic version on CD Rom or via e-mail in a format that is virus-free and is organized such that it can be transferred readily to CD.

Proposals for each project must be submitted in a sealed envelope and be received at the address below, no later than **September 5, 2008 at 4:00pm.**

**Ministry of Training, Colleges and Universities
Programs Branch
23rd Floor, Mowat Block
900 Bay Street
Toronto, ON M7A 1L2
Attention: Terry Hesketh**

Proponents may submit questions via e-mail regarding this Call to terry.hesketh@ontario.ca by August 13, 2008. In order to ensure consistent and accurate information is provided to all potential proponents, written responses to questions will be posted on the Employment Ontario Partners Gateway www.eopg.ca/eng/AIF by August 18, 2008.

7. PROCEDURES FOR DEVELOPMENT OF CURRICULUM STANDARDS AND EXEMPTION TESTS (see attached guide)

Attached to this Call are the Ministry's mandatory development requirements, which the Project Team **must** use to ensure products meet Ministry quality standards. The attachments provide detailed information about the Ministry's definitions and methodology as they relate to the project. Below are definitions regarding project terminology.

Curriculum Development: refers to the development of Ministry approved in-school curriculum standards for trades/occupations where none exist. New curriculum standards must be developed to the Ministry's format. This involves developing and grouping the learning outcomes into reportable subjects. A reportable subject is a clustering or grouping of related or like learning outcomes, units of learning or modules.

Curriculum Revision: refers to updating units of learning for implementation as reportable subjects and/or updating curriculum in response to changes in the trade. Curriculum standards must be developed to the Ministry's format. This involves revising and grouping learning outcomes into reportable subjects. A reportable subject is a clustering or grouping of related or like learning outcomes, units of learning or modules. (See attached: Procedures for the Development of Apprenticeship Curriculum Standards.)

Exemption Tests Development or Revision: An individual may be exempted from some or all of the formal instruction requirements for an apprenticeship program by successfully completing ministry approved exemption tests. Exemption test development is based on the curriculum standard. Tests are developed for each curriculum reportable subject and level as outlined in the approved curriculum standard. Exemption tests are revised as required, reflecting updated curriculum standards. (See attached: Procedures for the Development of Apprenticeship In-school Exemption Tests.)

Exemption Test Validation: Exemption test validation is critical to the successful implementation of the tests. The Ministry requires extensive validation prior to implementation to ensure that industry and all training delivery agencies support the exemption tests and test banks.

8. FINAL PROJECT REQUIREMENTS FOR CURRICULUM STANDARDS AND EXEMPTION TESTS

The Contractor will be required to fulfill the following requirements:

| Requirement | |
|--|--|
| <p>Project Team To ensure that the project deliverables are completed to ensure the project is on time and on budget</p> | <p>Establish and chair a Project Steering Committee which is responsible for managing the work of the Project Team, and advising the Project Team throughout development work to ensure project deliverables are met and to ensure the project is on time and on budget. The Steering Committee must include representatives from:</p> <ul style="list-style-type: none"> • the Project Team; • the Curriculum Advisory Committee (CAC); • the Industry Committee (IC) or the Provincial Advisory Committee (PAC); • The Ministry Trade Program Coordinator. <p>Include a formal process for ongoing communication and progress reports to the Ministry Trade Program Coordinator and AIF Program Coordinator.</p> |
| <p>Products</p> | <p>Submit draft products to the Ministry Trade Program Coordinator by negotiated deadline specified in the contract, including:</p> <ul style="list-style-type: none"> • one hard copy of the draft deliverable, and suitable for photocopy; • electronic version on CD ROM or via e-mail in a format that meets Ministry Information Technology standards is virus-free and is organized such that it can be transferred readily to CD and complies with confidentiality/security requirements; • attach written and dated approval of the Project Steering Committee. <p>Submit each final approved product to the Ministry Trade Program Coordinator by the negotiated deadline specified in the contract, including:</p> <ul style="list-style-type: none"> • one master unbound copy of each final product; • electronic version on CD ROM or via e-mail in a format that meets Ministry Information Technology standards is virus-free and is organized such that it can be transferred readily to CD and complies with confidentiality/security requirements; • attach written and dated approval of the Project Steering Committee for each product. <p>NOTE:</p> <p>a) All diagrams and graphics must be submitted in a Corel Draw compatible format. For example, drawings created in Auto Cad must be saved with either a .dxf or .dwg or .jpg file extension.</p> <p>b) Where curriculum is delivered at a college, the project lead must ensure that the college Heads of Apprenticeship Training (HAT) representative reviews the curriculum for recommendation to the Ministry. If possible, curriculum development timelines should target completion before the HAT final annual meeting in May, 2009.</p> <p>c) All final products must be complete and accurate and must adhere to the Ministry's methodology, as detailed in the Procedures for Development (see Attachments).</p> <p>Final payment will be subject to Ministry approval of the final product, receipt of the final report and financial statement.</p> |

| | |
|----------------|--|
| <p>Reports</p> | <p>Submit two copies of the Interim and Final Reports to the AIF Coordinator and Trade Program Coordinator by the negotiated deadlines. As a minimum, MTCU template must be used for reporting. Template will be provided to the successful bidders upon contracting.</p> <p>Interim and Final Reports must include:</p> <ul style="list-style-type: none"> • status of project deliverable(s); • confirmation of Project Team and Project Steering Committee members; • minutes of stakeholder meetings; • identification of any issues and/or concerns encountered; • identification of deviation from project scope and plan. <p><i>Interim Reports</i> must also include a financial summary, which shows spending to-date based on the original budget submitted;</p> <p><i>Final Reports</i> must also include:</p> <ul style="list-style-type: none"> • a description of project results; • a financial statement signed by the Chief Financial Officer if project expenditures are under \$100,000; • a detailed accounting statement itemizing all costs of the project, audited and signed by a qualified independent Auditor for projects with expenditures of \$100,000 or more. |
|----------------|--|

9. ELIGIBLE COSTS

Project operating costs may include only the following expenses:

- a) **Project Staff Salaries & Benefits**
Includes salaries and benefits for all full-time and part-time staff involved in the project.
- b) **Consulting Services and Subcontracting Services and Description of Activities**
- c) **Support Costs**
Travel - Includes all costs associated with road, rail and/or air travel, as well as the food and accommodation associated with it within the terms of the project. Travel outside of Ontario must have prior Ministry written approval.

Telephone/fax - Includes all regular and long distance charges for project costs only.

Mail/Postage - Includes all regular postage costs related to the project.

Rentals - Only the approved rent/lease costs for the project.

Audit - Costs associated with the preparation of the program audit for projects with expenditures exceeding \$100,000.

Supplies and Equipment - Includes office supplies, stationery, printing, any equipment, furniture rentals and repairs related to the project.

Other Expenses - Prior approval by the Ministry is required. Full disclosure of other costs charged to the project is required.

NOTE:

Where a consortium of colleges/TDAs/organizations is submitting the proposal the total project budget must identify all staff allocated to each key deliverable within the project, and there must be a written commitment from each colleges/TDA/organization confirming the allocation of staff and time.

Capital purchase of land, buildings, equipment, or movable stock is not eligible for funding.

Financial Statements for the interim and final financial reports must include a line-by-line accounting of project expenses, in a format consistent with that submitted in the original proposal.

10. PROPOSAL ASSESSMENT PROCESS

The proposal must satisfy all requirements as laid out in this section including:

- Submit the name and contact information of the employee in the Proponent's organization who will have overall responsibility for signing and managing the obligations of any eventual Agreement.
- Provide documents to substantiate the proponent is a legal entity and able to enter into contractual agreements.
- Submit the certificate of insurance or proof of ability to obtain insurance, if selected by the Ministry.
- Submit one original letter or statement, signed by a senior representative, stating that the organization would take legal responsibility for the project if it were approved for funding.
- Submit a project proposal which includes a project description and development plan, project structure and project budget (required format provided in Appendix B). Proposal requirements are further detailed in Section 5.
- For alternative delivery projects, access to a previous, similar, successful project, developed and implemented by the proponent is required, either through DVD or a link to an external website. A demonstration may be requested.

Complete and submit Appendix A – References, Appendix B – Budget Template, Appendix C – Proposal Checklist and Appendix D – Return Label.

The evaluation process will include, but is not limited to, a review of the following elements:

1. Project Description and Development Plan
2. Project Structure
3. Project Budget

These are described in detail in the project proposal outline in Section 5.

Proposals must be detailed, logically organized including timelines.

Past performance on similar projects will be considered.

Where necessary, Ministry staff will contact the proponent during the evaluation process to clarify issues and/or to request additional information relevant to the overall proposal assessment.

All proponents will be notified regarding the results of the evaluation. Proponents will be notified of the Ministry's "intent to contract", which will be followed by a contract meeting and/or communication to discuss contract deliverables.

Performance Measures

Performance measures are an essential management tool for the provincial government. Performance information helps to determine which programs and services are providing value and making a measurable difference with stakeholders.

The AIF program and the projects are evaluated for effectiveness, efficiency, and customer service.

Project Outcomes (the results of a project/program activity compared to its intended purpose) must be documented in the interim and final reports.

Once the projects have been completed, industry representatives (through the Industry Committees and the Provincial Advisory Committees) will be surveyed regarding their level of satisfaction concerning the product that has been developed. This feedback will enable the Ministry to ensure that program goals are on track and are achieved.

Project proposals submitted to the Ministry **must** identify the results that will be achieved at the completion of the proposed project.

Previous Work:

The Ministry may assess samples of previous work and information provided by references.

11. PROGRAM LEGAL REQUIREMENTS

- A. All materials including, but not limited to, documents, raw data, research, processes, technology, programs and inventions conceived or produced in the performance of this Agreement shall belong to the Ministry. The intellectual property (including copyrights, patents, trademarks, industrial designs, know-how and trade secrets in them) shall also belong to the Ministry. All of them shall be delivered to the Ministry on completion or termination of the services. The contractor shall have a right, in the nature of a non-exclusive licence to publish and distribute in Ontario and throughout the world, material developed through the project, on a non-profit, cost-recovery basis.
- B. Bidders are advised that any agreement with the Ministry of Training, Colleges and Universities as a result of this Call for Proposals is on a non-exclusive basis and the Ministry may enter into similar agreements with other parties at any time.
- C. Developers must acknowledge ministry funding on all products.
- D. Prior to the release of any funds, a legal agreement in form and content satisfactory to the Province of Ontario must be negotiated and signed by the Ministry of Training, Colleges and Universities and the recipient of the funds.
- E. The recipient of the funds must be the same entity approved for funding; a legal entity in the Province of Ontario and able to enter into contractual agreements; responsible for the project and accountable for the funding.
- F. The Ministry reserves the right to request and verify proponent references. The Ministry reserves the right to check references other than those provided by the proponent.
- G. The successful proponents may be announced in a Ministry news release for this initiative.
- H. The proponents shall not make any news releases or other public announcements concerning this Call or awarding of the same, or resulting contract without the express consent of the Ministry.
- I. Full acknowledgement of Ontario government support must be provided in all marketing and promotional materials.

- J. All submitted proposals become the property of the Ministry of Training, Colleges and Universities and shall not be returned. Samples of products will be returned if requested.
- K. The Ministry reserves the right to accept or reject any proposal, in whole or in part, in its absolute discretion.
- L. Successful proponents must comply with all applicable laws of Ontario and Canada including, but not limited to, the Occupational Health and Safety Act (Ontario), the Ontario Human Rights Code and the Pay Equity Act.
- M. Successful proponents must secure comprehensive general liability insurance to an inclusive limit not less than two million dollars (\$2,000,000) per occurrence on property damage, bodily injury and personal injury.
- N. Proponents must disclose any information pertaining to any situation that may be a conflict of interest in submitting the proposal or, if selected, the contractual obligations.
- O. The Ministry of Training, Colleges and Universities is subject to the Freedom of Information and Protection of Privacy Act. Any information submitted in confidence should be clearly marked.
- P. This Call for Proposals may be amended or cancelled at any time at the discretion of the Ministry.

Appendix A - Reference Form

Each Proponent shall provide the reference information as requested in the CFP in Section 5 (2b) page 6.

Reference #1:

| |
|--|
| Company Name: |
| Company Address: |
| Contact Name: |
| Telephone Number and E-mail, if available: |

Reference #2:

| |
|--|
| Company Name: |
| Company Address: |
| Contact Name: |
| Telephone Number and E-mail, if available: |

Reference #3:

| |
|--|
| Company Name: |
| Company Address: |
| Contact Name: |
| Telephone Number, and E-mail if available: |

Appendix B – BUDGET TEMPLATE

Each Proponent shall provide the budget information as requested in the CFP in Section 9. For alternative delivery and research project, please adapt template activities as required.

Project Budget- curriculum standards

| Detailed Work Plan (list activities/key deliverables) | Project Staff Salaries and Benefits* | Days | Daily Rate | Sub-Total Cost | Support Costs** | Total |
|--|--------------------------------------|------|------------|----------------|--------------------------------------|-------|
| Finalize and submit -steering/project committee team names, roles and responsibilities -project lead name and contact info -confirm project mandate/charter -sign contract | Name of staff from organization. | | | | Travel Room Supplies etc-please list | |
| | Name of Subject Matter Expert/(s) | | | | | |
| | Name of Consultant/(s) | | | | | |
| | Administrative support | | | | | |
| Draft learning outcomes and report back to MTCU | Name of staff from organization | | | | Travel Room Supplies etc-please list | |
| | Name of Subject Matter Expert/(s) | | | | | |
| | Name of Consultant/(s) | | | | | |
| | Administrative support | | | | | |
| Draft curriculum standards and report back to MTCU | Name of staff from organization | | | | Travel Room Supplies etc-please list | |
| | Name of Subject Matter Expert/(s) | | | | | |
| | Name of Consultant/(s) | | | | | |
| | Administrative support | | | | | |
| CAC, PAC or IC, and HAT(where appropriate) approval and report back to MTCU | Name of staff from organization | | | | Travel Room Supplies etc-please list | |
| | Name of Subject Matter Expert/(s) | | | | | |
| | Name of Consultant/(s) | | | | | |
| | Administrative support | | | | | |
| Final report, financial report, and final product to MTCU | Name of staff from organization | | | | Travel Room Supplies etc-please list | |
| | Name of Subject Matter Expert/(s) | | | | | |
| | Name of Consultant/(s) | | | | | |
| | Administrative support | | | | | |
| Total Project Cost | | | | | | |

* Please detail all staff involved.

****Travel, telephone/fax, mail/postage, rentals, supplies and equipment, audit.**

Project Budget- exemption tests

| Detailed Work Plan (list activities/key deliverables) | Project Staff Salaries and Benefits* | Days | Daily Rate | Sub-Total Cost | Support Costs** | Total |
|---|--------------------------------------|------|------------|----------------|---|-------|
| Finalize and submit -steering/ project committee names, roles and responsibilities -project lead name and contact info -confirm project mandate/charter -sign contract | Name of staff from organization | | | | Travel Room Supplies etc- please list | |
| | Name of Subject Matter Expert/(s) | | | | | |
| | Name of Consultant/(s) | | | | | |
| | Administrative support | | | | | |
| Complete and submit Exemption Test exam plan | Name of staff from organization | | | | Travel Room Supplies etc- please list | |
| | Name of Subject Matter Expert/(s) | | | | | |
| | Name of Consultant/(s) | | | | | |
| | Administrative support | | | | | |
| Complete and submit Exemption Test item bank (equivalent of 3 unique tests per level) | Name of staff from organization | | | | Travel Room Supplies etc- please list | |
| | Name of Subject Matter Expert/(s) | | | | | |
| | Name of Consultant/(s) | | | | | |
| | Administrative support | | | | | |
| Complete and submit three tests per level. (Tests must be generated from Ministry approved item banks.) Validate/field test products and report on results | Name of staff from organization | | | | Travel Room Supplies etc- please list | |
| | Name of Subject Matter Expert/(s) | | | | | |
| | Name of Consultant/(s) | | | | | |
| | Administrative support | | | | | |
| Final report, financial report, and final product to MTCU | Name of staff from organization | | | | Travel Room Supplies etc- please list | |
| | Name of Subject Matter Expert/(s) | | | | | |
| | Name of Consultant/(s) | | | | | |
| | Administrative support | | | | | |
| Total Project Cost | | | | | | |

* Please detail all staff involved.

** Travel, telephone/fax, mail/postage, rentals, supplies, equipment, audit.

Appendix C– Proposal Checklist Form

Each Proponent shall complete this checklist and include it in their proposal submission.

| Submission Requirements | Please check (√) if included |
|---|------------------------------|
| One unbound original proposal, suitable for photocopy; plus two copies | |
| Proposal does not exceed 10 pages | |
| One electronic version of proposal on CD Rom or via e-mail in a format that meets Ministry Information Technology standards is virus-free and is organized such that it can be transferred readily to CD. | |
| Submission includes contact information and proof of signing authority | |
| Certificate of Insurance or proof of ability to obtain insurance | |
| Project description and development plan as per section 5 | |
| Project Budget as per section 9 and in the format provided in Appendix B | |
| Completed Appendix D -- Return Label | |
| Completed Appendix A – Reference Form | |
| Completed Appendix C -- Submission Checklist | |

In signing below, the Proponent certifies that the information given in support of this Call for Proposal is true, correct and complete in every respect.

Print name: _____

Signature: _____

Title: _____ **Date:** _____

Appendix D – Return Label

Affix this label to your submission

CFP TITLE: AIF Call for Proposals – July 2008

NAME: _____

ADDRESS: _____

TO:

**Ministry of Training, Colleges and Universities
Programs Branch
Mowat Block, 23rd Floor
900 Bay Street
Toronto, ON
M7A 1L2**

Attention: Terry Hesketh

Closing Date: September 5, 2008

Closing Time: 4:00 pm

APPENDIX E – Individual Project Requirements

PROJECT 1

Automotive Service Technician 310S

Automotive Service Technician (AST) is a person who is responsible for the diagnosis and repair of vehicle systems for automobiles, sport utility vehicles and light utility trucks.

AST is a restricted trade under the Apprenticeship and Certification Act (ACA), with a Certificate of Apprenticeship issued upon successful completion of the apprenticeship program. An Interprovincial Red Seal is awarded to eligible candidates who attain a score of 70% on the examination. Training time is 7,000 hours which includes 720 hours of in-school curricula.

This project will review and revise existing (issued in 2004) Levels 1, 2 and 3 of the in-school curriculum standard to reflect changes in the trade including the introduction of new technologies. An electronic copy of the in-school curriculum standard is available. Maximum project value is \$45,000.

An AST inspects, diagnoses, troubleshoots, repairs and verifies repairs on:

- Engine systems
- Electrical systems – starting and charging
- Engine management systems
- Electrical systems – body
- Fuel delivery systems
- Transmissions and clutches
- Drive shafts, differentials, and drive axle assemblies
- Suspension systems and frames
- Steering systems
- Braking systems
- Tires, wheels, rims and hubs
- Heating, ventilation, and air-conditionings systems
- Body and Trim
- Exhaust, intake and emission control systems

PROJECT 2

This project involves revisions to current in-school curriculum standards and common core curriculum standards of four different trades; Agricultural Equipment Technician 425A, Heavy Duty Equipment Technician 421A, Powered Lift Truck Technician 282E and Truck and Coach Technician 310T. There are six components to this project and all must be included at a total cost between \$150,000 and \$170,000.

Component 1

Review and revise existing Commercial Vehicle and Equipment common core in-school curriculum standard for Level 1. The Commercial Vehicle and Equipment curriculum standard is comprised of common learning outcomes for four specific trades: Agricultural Equipment Technician 425A, Heavy Duty Equipment Technician 421A, Powered Lift Truck Technician 282E, Truck and Coach Technician. The revised curriculum standard must maintain the overall time allocation of the current curriculum standard.

Component 2

Review and revise existing Commercial Vehicle and Equipment common core in-school curriculum standard for Level 2. The Commercial Vehicle and Equipment curriculum standard is comprised of common learning outcomes for two specific trades: Agricultural Equipment Technician 425A and Heavy Duty Equipment Technician 421A. The revised curriculum standard must maintain the overall time allocation of the current curriculum standard.

Component 3

Review and revise existing Level 3 in-school curriculum standard for Agricultural Equipment Technician 425A. An electronic copy of the 2004 curriculum standard is available.

Agricultural Equipment Technician is a voluntary certified trade under the Apprenticeship and Certification Act (ACA) with a Certificate of Apprenticeship issued upon successful completion of the apprenticeship program. An Interprovincial Red Seal is awarded upon attaining a score of 70% on the examination. Training is 7000 hours which includes 720 hours of in-school curriculum.

Agricultural Equipment Technician is defined as a person who inspects, diagnoses, repairs and verifies the repair of agricultural equipment including:

- Electrical systems
- Hydraulic systems
- Engine systems
- Intake, exhaust and emission control systems
- Fuel delivery systems
- Engine management systems
- Clutches and transmissions
- Drive axle and final drive assemblies
- Steering systems
- Braking systems
- Air supply and auxiliary systems
- Suspension systems
- Tires, wheels, ballasting and undercarriages
- Air conditioning, heating and ventilation systems
- Body and trim
- Tillage and planting equipment

- Harvesting equipment
- Spraying, irrigation and distribution equipment
- Materials handling equipment
- Precision farming
- Systems equipment

Component 4

Review and revise existing Level 3 in-school curriculum standard for Heavy Duty Equipment Technician 421A. An electronic copy of the 2004 curriculum standard is available.

Heavy Duty Equipment Technician is an unrestricted trade under the Apprenticeship and Certification Act (ACA) with a Certificate of Apprenticeship issued upon successful completion of an apprenticeship program. Training time is 7,000 hours which includes 720 hours of in-school curriculum.

Heavy Duty Equipment Technician is defined as a person who inspects, diagnoses, repairs and verifies the repair of: bulldozers, cranes, graders and other heavy construction, agricultural, logging and mining equipment for proper performance and inspect equipment to detect faults and malfunctions including:

- Engine systems
- Engine management systems
- Exhaust, intake, and emission control systems
- Electrical systems – starting and charging
- Hydraulic systems
- Clutches and transmissions
- Drive shafts, drive axle assemblies and final drives
- Steering systems
- Braking systems
- Suspension systems
- Air supply and auxiliary air systems
- Heating, ventilation and air conditioning systems

Component 5

Review and revise existing Levels 2 and 3 in-school curriculum standard for Powered Lift Truck Technician 282E. An electronic copy of the 2004 in-school curriculum standard is available.

A Powered Lift Truck Technician is a person responsible for diagnosing and repairing vehicle systems of various types of lift trucks found in a number of industrial, construction and manufacturing applications.

Powered Lift Truck Technician is an unrestricted trade under the Apprenticeship and Certification Act (ACA) with a Certificate of Apprenticeship issued upon successful completion of the apprenticeship program. Training time is 7,000 hours which includes

720 hours of in-school curriculum.

Powered Lift Truck Technician is defined as a person who inspects, diagnoses, repairs and verifies the repair of Powered Lift trucks including:

- Manufacturers Specification Plate
- Electrical systems - (internal combustion) – starting and charging
- Engine systems
- Fuel delivery systems
- Engine management
- Clutches and transmissions
- Drive axle and final drives assemblies
- Steering systems
- Braking systems
- Air supply and auxiliary air systems
- Suspension systems
- Batteries
- Electric motor systems
- Drive unit – electrical vehicles
- Control systems – electric vehicles
- Hydraulic systems
- Lifting systems
- Heating, ventilation and air conditioning systems
- Frame and cab systems
- Pneumatic tires and wheels
- Solid tires and wheels

Component 6

Review and revise existing Levels 2 and 3 in-school curriculum standard for Truck and Coach Technician 310T. an electronic copy of the 2004 in-school curriculum standard is available.

Truck and Coach Technician is a restricted trade under the Apprenticeship and certification Act (ACA) with a Certificate of Apprenticeship issued upon successful completion of the apprenticeship program. An Interprovincial Red Seal is awarded upon attaining a score of 70% on the examination. Training time is 7,000 hours which includes 720 hours of in-school curriculum.

Truck and Coach Technician is defined as a person who, on motor coaches, heavy trucks, and truck-trailers, inspects, diagnoses and troubleshoots, repairs, and verifies repairs on:

- electrical systems - starting and charging;
- electrical systems - body electrical;
- fuel systems;
- engines;
- engine management systems;
- exhaust, intake and emission control systems;
- transmissions and clutches;

- drive shafts and drive axle assemblies;
- frames and hitching/coupling systems;
- body and trim;
- suspension systems;
- steering systems;
- tires, wheels, rims, and hubs;
- air supply systems;
- braking systems;
- heating, ventilation, air-conditioning and refrigeration systems, and
- hydraulic systems.

PROJECT 3

Horse Groom – 600H

A Horse Groom is a person who is responsible for the maintenance, health, nutrition, feeding, and grooming of horses. They work with riding establishments, stables, and racetracks. They operate and maintain barn mechanical and electrical systems and farm mechanical equipment and repair and maintain stable and pasture facilities.

Horse Groom is an unrestricted trade under the Apprenticeship Certification Act (ACA) with a Certificate of Apprenticeship upon successful completion of an apprenticeship. Training time for a Horse Groom is 4,000 hours which includes 480 hours of in-school curricula.

The project will review and revise the existing (issued in 2002) Level 1 and Level 2 of the in-school curriculum standard to reflect changes to the trade. An electronic copy of the current curriculum standard is available. Maximum project value is \$35,000.

A Horse Groom:

- reads and interprets horse documentation, feed sheets, feeding guides, government regulations, and nutritionist or veterinarian recommendations/prescriptions;
- handles and controls horses;
- grooms and cleans horses;
- tack-ups and un-tacks horses;
- feeds and waters horses;
- performs horse health maintenance procedures;
- cleans and maintains stable facilities, tools, equipment, and supplies;
- loads and unloads horse for transportation;
- communicate with co-workers.

A Horse Groom is knowledgeable in:

- applied safety procedures
- horse anatomy
- classification & identification of horses
- basic horsemanship
- grooming techniques & procedures
- tacking & un-tacking techniques & procedures
- exercising methods & techniques
- nutritional practices & procedures
- equine health and nursing theory & methods
- internal systems of horses
- identification & determination of lameness
- transporting techniques
- facilities maintenance
- pasturing procedures & techniques

PROJECT 4

This project includes three Information Technology Contact Centre trades: Technical Support Agent 634A, Inside Sales Agent 634D and Customer Care Agent 634E.

All three Information Technology Contact Centre trades are non-restricted certified trades regulated by the Apprenticeship and Certification Act (ACA). Upon successful completion of the program, a person working in these trades is entitled to a Certificate of Apprenticeship.

Training time for each individual trade is 4000 hours which includes 270 hours (9 weeks) of in-school curriculum. An electronic copy of the 2006 Schedule of Training is available for each trade.

A common core (Level 1) curriculum standard for all three trades plus Level 2 and Level 3 for all three trades is required. Each Level of in-school is three weeks in length. Maximum contract value for this project is \$75,000.

An IT Technical Support Agent (634A) is a person who:

- Maintains a safe work environment
- Maintains a functional technical support help desk
- Demonstrates a thorough knowledge of computer components and PC technology
- Provides support to clients in their use of software applications
- Supports clients with their installation of hardware, software and networking components
- Implements logical troubleshooting techniques

- Communicates effectively with clients, co-workers and supervisors
- Demonstrates quality customer service skills
- Creates and maintains required documentation
- Demonstrates coaching and mentoring skills

An IT Technical Support Agent (634A) is knowledgeable in:

- Health & Safety Practices
- Microcomputer Technology
- Microcomputer Operating Systems
- Microcomputer Applications
- Desktop and Mobile Platforms
- Professionalism in the Workplace
- Communications
- Customer Service

An IT Inside Sales Agent (634D) is a person who:

- Maintains a safe work environment for self and others
- Maintains a functional help desk environment
- Communicates effectively
- Provides quality customer sales and services
- Demonstrates quality customer service skills
- Creates and maintains required documentation
- Sets up and configures microcomputer system & components
- Demonstrates teamwork skills
- Demonstrates coaching and mentoring skills

An IT Inside Sales Agent (634D) is knowledgeable in:

- Health & Safety Practices
- Microcomputer Technology
- Microcomputer Applications
- Desktop and Mobile Platforms
- Professionalism in the Workplace
- Communications
- Customer Sales and Services
- Time Management
- Workplace Stress & Conflict Resolution
- Inside Sales Agent Call Centre Environment
- Operating System Software
- Queue Management
- IT Compliance

An IT Customer Care Agent (634E) is a person who:

- Maintains a safe environment for self and others
- Maintains a functional help desk environment
- Communicates effectively with clients, co-workers, and supervisors
- Demonstrates quality customer service skills
- Creates and maintains required documentation
- Demonstrates a thorough knowledge of computer components and PC technology
- Demonstrates coaching and mentoring skills
- Establishes and maintains quality client relationships
- Demonstrates quality client service skills
- Liaises with manufacturing, sales, support and financial services
- Handles pre-sales and post-sales services
- Reviews and distributes cross-functional information
- Demonstrates effective negotiating skills
- Supports sales organization through customer care activities

An IT Customer Care Agent (634E) is knowledgeable in:

- Health & Safety Practices
- Introduction to Microcomputers
- Microcomputer Applications
- Desktop and Mobile Platforms
- Professionalism in the Workplace
- Communications
- Customer Service
- Time Management
- Stress in the Workplace
- Help Desk Environment
- Teamwork & Conflict Resolution

PROJECT 5

Architectural Glass and Metal Technician 424A

This project will include revisions to the current curriculum standard and Exemption Tests.

An Architectural Glass and Metal Technician is a person who prepares, cuts, shapes and installs glass; fabricates, assembles and installs windows, curtain wall, glazing systems, doors and entrance-ways and installs seals, gaskets, caulking, operating hardware and glazing films.

Architectural Glass and Metal Technician is an unrestricted trade under the Trades Qualification and Apprenticeship Act (TQAA) with a Certificate of Apprenticeship issued upon successful completion of the apprenticeship program. An Interprovincial Red Seal is awarded to eligible candidates who attain a score of 70% on the examination. Training time is 8000 hours which includes 720 hours of in-school curriculum (three levels of 240 hours each).

This project will review and revise Level 1, 2 and 3 of the in-school curriculum standard and develop two Exemption Tests of 100 questions each, for the three levels of in-school curriculum. All Exemption Tests will require an Exemption Test plan. A total of six Exemption Tests is required. Electronic copies of the current curriculum standard and Exemption Tests are available. Maximum project value is \$75,000.

The curricula must support the following on the job performance requirements:

- Practice health and safety
- Employ trade tools and equipment
- Use and maintain material handling, safety and site access equipment
- Prepare for on-site installation
- Select and install fasteners
- Install curtain wall systems
- Fabricate, assemble and install windows
- Install glazing systems
- Cut, shape and install glass
- Install seals, gaskets and caulking
- Install doors and entrance ways
- Install operating hardware
- Install glazing film

PROJECT 6

Pressure System Welder

This project will include the development of an in-school curriculum standard for Level 1 and an Exemption Test for Level 1.

Pressure System Welder is defined as a person who welds metal plates, shells, tubes, drums and structures to assemble and repair boilers and pressure systems to meet pressure test standards.

A Pressure System Welder apprentice entrant is required to be a journeyman qualified by means of a Certificate of Qualification in Welder 456A. The Pressure System Welder has not yet been designated as an approved apprenticeship. The in-school component of training will consist of 480 hours or two Levels. Level 2 has been developed by a previous contract.

Using an electronic version of the Pressure System welder Training Standard and Level 2 curriculum standard, this project will develop a 240-hour in-school curriculum standard for Level 1 and an Exemption Test plan and two Exemption Tests for Level 1 with 100 questions for each test. There are no existing Exemption Tests for this trade at Level 1/ Maximum project value for both components is \$40,000.

The curriculum standard must support the following on-the-job performance requirements:

- Apply ASME standards to welds
- Use weld procedure specifications
- Apply welder performance qualifications
- Select pressure welder components
- Select pressure welder procedure
- Cut and prepare pipes/tubes, tanks and vessels
- Complete assembly of pipes/tubes, tanks and vessels
- Weld pressure systems with SMAW, GTAW, GMAW and FCAW
- Braze metal on pressure systems
- Repair defective welds
- Perform specialized techniques (mirror and window welding).

PROJECT 7

Terrazzo, Tile and Marble Setter 241A

This project will include revisions to the current in-school curriculum standard for Levels 1 and 2 and the development of two Exemption Tests for Levels 1 and 2.

A Terrazzo, Tile and Marble Setter is a person who covers, repairs and decorates exterior and interior walls, floors, swimming pools, saunas and other surfaces using ceramic, mosaics, marble, quarry tile, slate, stone or granite slabs or terrazzo.

Terrazzo, Tile and Marble Setter is an unrestricted trade under the Trades Qualification and Apprenticeship Act (TQAA) with a Certificate of Apprenticeship issued upon successful completion of the apprenticeship program. An Interprovincial Red Seal is awarded to eligible candidates who attain a score of 70% on the examination. Training time is 5600 hours which includes 720 hours of in-school curriculum (2 Levels of 360 hours each or 9 weeks at 40 hours per week).

This project will review and revise Level 1 and 2 of the in-school curriculum standard and develop two Exemption Tests of 100 questions each for the two Levels of in-school curriculum. All Exemption Tests will require an Exemption Test plan. A total of four Exemption Tests are required. An electronic copy of the current curriculum standard is available. There are no current Exemption Tests for this trade. Maximum project value is \$65,000.

The curriculum standard must support the following on-the-job performance requirements:

- Work safely on the job
- Use and maintain trade tools and equipment
- Communicate in the workplace
- Plan and organize job site
- Prepare job
- Prepare sub-surface
- Install terrazzo
- Install tile
- Perform mechanical installation of natural stone on walls
- Install natural stone indoors by conventional or stacking method
- Install natural stone slabs on floors
- Install natural stone counter tops

PROJECT 8

Dairy Herdsperson – 640D

Dairy Herdsperson is an individual who is responsible for the maintenance, health, nutrition, and breeding of milk cows. They work with milk processing and sterilizing equipment. They operate and maintain barn mechanical and electrical systems and farm mechanical equipment.

This is an unrestricted trade under the Apprenticeship Certification Act offering a Certificate of Apprenticeship upon successful completion of an apprenticeship. The training time for a Dairy Herdsperson is 6,000 hours which includes 480 hours of in-school curriculum.

Using the 2008 revised Dairy Herdsperson in-school curriculum standard, this project will create an Exemption Test plan and develop two Exemption Tests for each of Levels 1 and 2 of the curriculum with 100 questions for each test for a total of four Exemption Tests. There are no existing Exemption Tests for this trade. The revised curriculum standard is available electronically. Maximum project value is \$30,000.

Dairy Herdsperson:

- reads and interprets milk procedure sheets, DFO health sheets, feed sheets, feeding guides, government regulations, and nutritionist or veterinarian recommendations/prescriptions;
- prepares and performs feeding and watering procedures;
- prepares and performs milking procedures;
- performs herd health maintenance procedures;
- operates and maintains barn mechanical and electrical systems;
- operates and maintains farm mechanical equipment.

A Dairy Herdperson is knowledgeable in:

- applied safety procedures
- milking theory and procedures
- feeding theory and procedures
- herd health maintenance theory and procedures
- routine herd maintenance theory and procedures
- farm mechanical and electrical systems basic maintenance theory and operating procedures
- farm mechanical equipment basic maintenance theory and operating procedures

PROJECT 9

Plumber 306A

A Plumber installs and services fixtures, appurtenances, and piping systems for drainage, venting, potable water distribution, hydronic heating/cooling and sewage disposal.

Plumber is a compulsory certified trade regulated by the Trades Qualification and Apprenticeship Act (ACA). On successfully completing the apprenticeship program and passing a trade examination, a person working in this trade is entitled to a Certificate of Apprenticeship and a Certificate of Qualification.

Training time for a Plumber is 9000 hours including 720 hours of in-school curriculum. The curriculum is delivered in 3 levels, with each level 240 hours in duration.

Two Exemption Tests for Levels 1, 2 and 3 must be developed, each comprising 100 multiple-choice items for a total of six Exemption Tests of 100 questions each. An Exemption Test plan will also be required for each Level. Numerous questions have been previously developed and will be made available for consideration in developing the Exemption Test bank. An electronic copy of the 2007 in-school curriculum standard is available. Maximum project value is \$30,000.

A Plumber is able to:

- lay-out, assemble, install, maintain or repair in any structure, building or site, the piping, fixtures, and appurtenances for the supply of water for any domestic or industrial purpose or for the disposal of water that has been used for any domestic or industrial purpose
- connect to piping any appliance that uses water supplied to it or disposes of waste
- make joints in piping
- read and understand design drawings, manufacturers' literature and installation diagrams for piping and connected appliances

In-school training for Plumber apprentices includes instruction in:

- workplace safety, rigging and hoisting
- plumbing systems
- drains, waste and vents (DWV) piping systems
- Process piping systems
- tools and piping methods
- trade calculations
- trade documentation
- welding

PROJECT 10

Railway Car Technician -268R

A Railway Car Technician inspects repairs, replaces and reconditions mechanical or structural components and systems of freight cars and passenger coaches. These individuals must have a mechanical aptitude and hands on skills and be able to use many different types of power, pneumatic and hydraulic tools or equipment. These individuals work for railway companies or rail car repair facilities.

This is an unrestricted trade under the Apprenticeship Certification Act (ACA) offering a Certificate of Apprenticeship upon successful completion of an apprenticeship. Training time for a Railway Car Technician is 8000 hours including 720 hours of in-school curricula.

Using the 2008 revised Railway Car Technician curriculum standard, this project will create an Exemption Test plan and develop two Exemption Tests for each of Levels 1, 2, and 3 curriculum standard with 100 questions for each test. A total of six individual Exemption Tests will be developed. There are no existing Exemption Tests for this trade. The revised curriculum is available electronically. Maximum project value is \$35,000.

Railway Car Technician is able to:

- protect self and others
- plan and prepare for the job
- perform benchwork
- perform material handling
- service rail trucks
- service underframes
- service brakes
- service car safety appliances
- perform safety and maintenance inspections
- service car bodies
- service coaches

Railway Car Technician is knowledgeable in:

- interpreting engineering drawings to plan the maintenance job
- metric and imperial calculations
- measuring and checking devices
- reference documentation – manufacturers' manuals, technical bulletins, parts bulletins, service or preventative maintenance manuals, fact sheets, American Association of Railways (AAR) field manuals, and government regulations
- work orders – billing repair cards, wheel reporting cards, inspection records and dangerous goods documentation
- hand tools, power tools, pneumatic tools, hydraulic tools
- Shielded Metal Arc Welding equipment
- Gas Metal Arc Welding equipment
- oxy-fuel and plasma-arc cutting equipment
- benchworking practices
- calculate forces and loads
- hoisting and lifting procedures and equipment
- procedures and methods for inspecting and servicing rail trucks
- procedures and methods for servicing underframes:
- procedures and methods for servicing brakes
- procedures and methods for servicing car safety appliances
- procedures and methods for performing safety and maintenance inspections
- procedures and methods for servicing car bodies
- procedures and methods for servicing coaches
- Communication skills
- Occupational Health and Safety Act
- Workplace Hazardous Materials Information Systems (WHMIS)
- Sanitation and Food Safety
- Safety Legislations
- American Association of Railways regulations
- Applicable Acts, Codes, Legislation and Regulation

PROJECT 11

This project includes Refrigeration and Air Conditioning Systems Mechanic 313A and Residential Air Conditioning Systems Mechanic 313D.

The in-school curriculum for both 313A and 313D has been updated and revised to incorporate requirements from the Ministry of Environment and the Technical Standards and Safety Authority including knowledge training for Ozone Depletion Prevention.

This project requires revisions to all existing Exemption Tests including two Exemption Tests for the current common core (Level 1) of both 313A and 313D and two Exemption Tests for each of Levels 2 and 3 for 313A and Level 2 of 313D. Each Level requires an Exemption Test plan and each Exemption Test will require 100 questions per test. A total of eight different Exemption Tests are required. Exemption Tests currently exist for both trades and are available. An electronic copy of the current curriculum standard for each trade is also available. Maximum project value is \$45,000.

A Refrigeration and Air Conditioning Systems Mechanic works on any cooling system or heating-cooling combination that is installed and used in a residential, industrial, commercial, or institutional setting. Individual must have good mechanical aptitude and skills. This individual works in companies that design, build, install, service, and maintain any cooling or heating-cooling system.

This is a compulsory trade with a Certificate of Apprenticeship upon successful completion of an apprenticeship and a Red Seal Certificate of Qualification upon successful completion of a certificate examination. The training time for Refrigeration and Air Conditioning Systems Mechanic is 9,000 hours which includes 720 hours of in-school curriculum.

Refrigeration and Air Conditioning Systems Mechanic - 313A:

- plans, prepares, and lays out any cooling system or heating-cooling combination system that is installed and used in a residential, industrial, commercial or institutional setting;
- installs and starts up refrigeration and air cooling systems and verifies the operation and function of the systems;
- installs and connects piping for the purpose of conveying all types of refrigerant used for both primary and secondary cooling;
- maintains, services, repairs, and replaces refrigeration and air cooling systems components and accessories;
- services, tests, adjusts, commissions, and decommissions any refrigeration and air cooling system.

Refrigeration and Air Conditioning Systems Mechanic must be knowledgeable in:

- workplace health and safety
- applied trade mathematics
- engineering drawings and documentation
- trade practices
- mechanical cooling cycle fundamentals
- mechanical cooling cycle components and accessories
- electrical and electronic fundamentals
- pipe joining, welding, brazing, and soldering
- installation and system start up procedures
- applied psychometrics
- prints and heat load calculations
- air conditioning systems
- air distribution systems and accessories

- electrical and electronic control systems
- pressure enthalpy and refrigerants
- cooling systems and components
- system design and installation
- installation procedures
- rigging and hoisting

A Residential Air Conditioning Systems Mechanic works on any air conditioning system which is installed as an independent unit in a residential family dwelling. This equipment operates at less than 240V single-phase power with a maximum cooling capacity of 5 tons. This person has advanced knowledge of air conditioning technology and mechanical systems as well as basic knowledge of electricity and electronics. Individual must have good mechanical aptitude and skills. This individual works in companies that design, build, install, service, and maintain residential air conditioning systems. This is a compulsory trade with a Certificate of Apprenticeship upon successful completion of an apprenticeship and a Red Seal Certificate of Qualification upon successful completion of a certificate examination. The training time for Residential Air Conditioning Systems Mechanic is 4,500 hours which includes 480 hours of in-school curriculum.

Residential Air Conditioning Systems Mechanic – 313D:

- plan, prepare, and lay out any residential air conditioning system
- install, start up, and verify any residential air conditioning system
- Install and connect piping for the purpose of conveying all types of refrigerant used for both primary and secondary cooling
- maintain, service, repair, and replace any residential air conditioning components and accessories, including the electrical and electronic components of the system
- service, test, adjust, commission, and decommission any residential air conditioning system

Residential Air Conditioning Systems Mechanic must be knowledgeable in:

- applied trade mathematics
- engineering drawings and documentation
- trade practices
- mechanical cooling cycle fundamentals
- mechanical cooling cycle components and accessories
- electrical fundamentals
- pipe joining, installation and system start up procedures
- welding, brazing, and soldering
- applied psychometrics
- prints and heat load calculations
- air conditioning systems
- air distribution systems and accessories
- electrical and electronic control systems
- installation procedures