Guidelines for Mill Process Operator—Mineral Ore
Program #810050
Common Core and Specialty Modules

1. Introduction
   - The Mill Process Operator—Mineral Ore, Program #810050, is intended for all mill process operators engaged in milling at an operating mill/mineral processing plant. These workers must be trained and accredited in the Mill Process Operator—Mineral Ore Common Core and in the Specialty Modules that pertain to their work.
   - ‘Workers engaged in mining’ excludes workers registered and accredited under the program #810050.
   - These modular training programs are designed to ensure minimum performance standards for worker training to reduce workplace risk and increase worker safety.
   - The requirements for the Mill Process Operator—Mineral Ore, Program #810050, are defined in Regulation 854, Mines and Mining Plants, made under the Occupational Health and Safety Act. In accordance with Section 11 of the Regulations, employers of mines and mining plants shall establish modular training programs.
   - Employers shall ensure that a mill process operator completes all of the modules of the appropriate basic common core program, before assigning work in the environment covered by that program. This means that the modules of the Common Core for Program #810050 must be completed before a worker is permitted to work in an operating mill.
   - Employers shall ensure that a mill process operator completes a specialty module within 12 months after the worker begins performing work covered by that module.
   - Employers shall ensure that workers are registered with the Ministry of Training, Colleges and Universities (MTCU) at the beginning of training in the program and that a signed Modular Training Report is sent to MTCU upon the worker’s completion of any module.

2. Background
   - The Mining Tripartite Committee (MTC) updated the Common Core modular training in the Mill Process Operator—Mineral Ore program to reflect current practices in the mining industry in Ontario today.
   - In order to update the Common Core, the MTC struck a subcommittee of hands-on experts from the mining sector. Representatives from the Ministries of Training, Colleges and Universities (MTCU) and of Ministry of Labour (MOL) were also part of the subcommittee.
Changes to the Common Core were proposed by industry, have been endorsed and recommended by the MTC and have been supported by the Mines Legislative Review Committee (MRLC). The following points highlight the reasons for this change:

- The evolution of technology and mining methods has made some required elements of the former Common Core not relevant for the training of mill process operators and, in some cases, redundant in the workplace today.
- In order to be in compliance, companies were being obligated to train workers in tasks (training modules) that they are not required to perform in the workplace.
- The intent of this restructuring is to reaffirm a standard training for mill process operators in operating mill/mineral processing plants to continue improvements in the performance of safe work.
- Elements of the four modules that now make up the Common Core have been realigned and strengthened to stress improved hazard awareness, reduction of risk while performing tasks and a practical introduction in the workplace environment.
- Further task proficiency and competency of mill process operators are addressed in the specialty modules in the respective programs for the work a worker is performing.
- The training workers will now receive is specifically for the work they will perform.

3. Program #810050: Common Core
   - The Common Core has been reduced from 8 modules to 4. The modules are:
     - U3430 Follow Mill Induction Procedures
     - U3352 Work Safely in a Mill Environment
     - U3358 Handle Reagents, Chemicals and Designated Substances
     - U3431 Perform General Lock Out and Tag on Prime Movers and Other Related Equipment.

   The other modules, which were part of the Common Core, have now been incorporated as a subsection of the common core modules, made into specialty modules or archived.

   - To be accredited in the Common Core, for Program #810050, the mill process operator must have demonstrated competency in each of these four modules.
   - Performance objectives must be signed off by the trainer when the trainee has achieved competence in the skill. For the purposes of MTCU programs, competence is achieved when the trainee is able to perform the skills repeatedly and without assistance in the workplace to the standard set out in the Training Standard document.

4. Program #810050: Specialty Modules
   - Workers must be trained and accredited in ministry-approved specialty modules for the work they are performing.

   The MTC recommends that the start of training is recognized by the signing and dating of a performance objective in the specific specialty module. Accreditation must be completed within one year from the start of the training, in accordance with Regulation 854, Mines and Mining Plants, made under the Occupational Health and Safety Act. The process for accreditation starts when the employer provides MTCU with the required documentation to signal that training is complete. The MTCU will then send documentary proof to the person who has been trained, confirming that the training has been completed.
• The trainer must sign off a performance objective when the trainee has achieved competence in the skill. Competence is achieved when the trainee is able to perform the skills repeatedly and without assistance in the workplace to the standard set out in the Modular Training Standard.

• Two specialty modules, U3401 and U3424, have prerequisites which the mill process operator must have completed before starting training in that module. These specialty module prerequisites have also been modified as part of the program revision.

• During the review of the common core program and specialty modules, an effort was made to clarify and reduce some of the duplication that had occurred over the years. The following highlight examples of these changes:
  o Module U3429 Operate Feeder now includes vibratory feeder, feeder pan, and apron feeder as a single module.
  o Module U3416 Operate Grinding Mill combines three former modules (Rod Mill, Ball Mill and Pebble Mill) into one module.

• Persons, who were originally accredited in a specialty module that has now been divided into multiple parts, will be eligible to train mill process operator in any of these newly divided modules. This means that, if a training instructor has the former U3364 (Operate Vibratory Feeder), then he or she can also train in the new U3429.

5. Certification
• For recognition and enforcement purposes, workers will be issued a transcript of completed modules.

• Certificate(s) of Achievement and Certificate of Qualification have been removed from the revised program and will no longer be issued.

• It was recognized that employers do not require or review these collections of specialty modules when assessing the experience of a potential future employee and instead require only the person’s transcript of training which provides a detailed record of the training a worker has received. It is the transcript that both employers and workers use for proof of accreditation consequently this additional level of administration has been removed.

6. Interpretation of Equivalency
• In accordance with section 11.3 of Regulation 854, made under the OHSA, and with the Agreement on Internal Trade, 1995 and the Protocols of Amendment, there may be recognition of equivalent training completed by workers in other jurisdictions. Employers should contact their local Apprenticeship Office for details about equivalencies for programs from other jurisdictions.
7. Training Guidelines

- An operating mill/mineral processing plant is a plant where the beneficiation or disposition of minerals from raw to final product takes place. Beneficiation can include conveying, crushing, grinding, classification, sampling and testing, dewatering, extraction and tailing disposition.

- New trainees and experienced mill process operators—mineral ore must obtain accreditation in the same way. Each must demonstrate the skills specified in each module. These demonstrations must be administered in an operating mill/mineral processing plant by a trainer designated by the employer’s Signing Authority who shall follow the guidelines approved by the MTC.

- It is the responsibility of the Signing Authority to confirm that the employees of their company have met the prerequisites for the Program #810050.

- The Signing Authority has ultimate accountability for trainers and the quality of the training programs for their company, in accordance with the requirements for the Common Core and specialty modular training program. This accountability applies whether the trainer being used is in-house or external to the company.

- The Signing Authority cannot sign themself off on the MTCU Training Report. In accordance with the Trainer Qualification and Criteria Requirements, the Signing Authority’s signature on the Training Report must be co-signed by a qualified trainer, other than themself.

- Signing Authority is not transferable without due process by the local MTCU Apprenticeship Office and may be suspended or revoked by MTCU with due cause.

- The Modular Training Standard book is the property of the worker. The Signing Authority is encouraged to maintain a copy of the worker’s signed-off training standard document in the company records. If the worker ceases to work for the company, the employer must give the worker back their training standard document.
Signing Authority Guidelines

For the Mill Process Operator—Mineral Ore, Program #810050 (Common Core and Specialty Modules), a Signing Authority is:

A person designated by their employer, and authorized by the Ministry of Training, Colleges and Universities, to be accountable for the quality of training, maintenance of training records and determining the competency of company workers for modular accreditation.

Responsibilities:

- Determines, for accreditation, the company workers who have demonstrated competency in the training modules as outlined in the MTCU Training Standards
- Signs training reports and maintains training records for the company workers
- Ensures and maintains quality training for company workers
- Evaluates/audits trainers at least once a year
- Submits original training reports and training applications to the local Apprenticeship office;
- Ensures company workers work in compliance with the Occupational Health and Safety Act (OHSA) and related legislation
- May be called on to describe the training received by company workers and provide evidence of its adequacy in a court of law.

Approval Criteria:

Only one person per program can have signing authority for their company. That person must:

- Know the training requirements for the specific modular program under the Occupational Health and Safety Act
- Be the company’s owner, or be an worker designated by the company as the signing authority
- Be highly skilled or knowledgeable in mining operations
- Be knowledgeable of training or be directly involved in training
- Identify which approved trainer/training agency will be used to train company workers.

Note: When a company representative first contacts the local MTCU Apprenticeship Office field staff, the following is done:

- MTCU field staff complete the Signing Authority Request Checklist form with the representative of the company that wants to train
- The company representative is given a copy of the training standard for the modular program where applicable
- The company representative is given a copy of the guidelines on definition of signing authority and the related responsibilities and accountability
- The company representative is given a copy of the list of trainers and/or trainer guidelines, train-the-trainer program guidelines and trainer audit guidelines.
An MTCU signing authority is a mining company/plant or mining contractor that must meet the following criteria:

- Own or lease a milling operation or perform mill process contracting work within a milling operation where mineral ore is sized, classified and extracted from raw material to final product of the milling process with the intent of turning a profit
- Controls and directs the day-to-day work of the workers in the mill environment
- Employ workers in the mill environment
- Be able to provide functional training in the appropriate mineral ore program to employees.

The following definitions meet the criteria for MTCU signing authority for Program #810050:

- Mining company/plant: Owns a mining property and employs workers who are working directly in milling operations where mineral ore is processed with the intent of turning a profit. This includes workers within the mill and all support personnel who are directed by workers of the company in management roles. This organization also employs training instructors who are trained to perform the functional training for the workers of this company.
- Mining plant contractor: Does not own a mining property though employs workers who are working directly in mineral ore processing operations where mineral ore is processed with the intent of turning a profit. This includes workers within the mill and all support personnel who are directed by workers of the contracting company in management roles. They also employ training instructors who are trained to perform the functional training for the workers of this company.

The following definitions do not meet the criteria for MTCU signing authority for Program #810050:

- Mining supplier: A company that builds, brokers or provides equipment or products to a mining company/plant or mining plant contractor and can supply subject matter experts to these organizations on a temporary basis for the process of initial training of instructors employed by these organizations. A mining supplier remains the employer for the subject matter experts and does not necessarily have instructors trained to the provincial criteria.
- Mining consultant: A company that provides advice or services for a fee to a mining company/plant or mining plant contractor. A mining consultant remains the employer for the subject matter experts.
- Temporary employment agency: Supplies workers to a mining company/plant or mining plant contractor. A temporary employment agency does not control and direct the day-to-day work of the workers in a mine/operating mill/mineral processing plant environment or is capable of training their workers to the provincial criteria and does not own a mining property, have access to a mining property or have any qualified instructors capable of functional training at a mining property.
Trainer Qualification and Criteria Requirements

A trainer in the Mill Process Operator—Mineral Ore Program must:

- Be highly skilled in the area of expertise he/she will be instructing
- Be certified and accredited in the Mill Process Operator—Mineral Ore Common Core Program and the any specialty he/she will be instructing
- Take a Train-the-Trainer (T-T-T) Program
- Be trained in application of the Act and the regulations pertaining to the specific modules being instructed
- Be trained in the company standards
- Prepare lesson plans and outline course materials to be used
- Have an appreciation of the serious nature of issues/concerns addressed at an inquest.(video, presentation, etc.).

Train-the-Trainer (T-T-T) Program Requirements:

Objectives of the T-T-T program are to train-the-trainer in:

- Applying adult learning principles to specific training projects
- Developing sound learning objectives
- Developing content material that addresses the learning objectives
- Developing learning activities that are consistent with both the learning objectives and the content material
- Selecting the most appropriate delivery medium
- Applying presentation techniques (e.g., making verbal presentations, using overheads or flip chart)
- Developing and practicing group facilitation skills
- Developing and applying evaluation techniques.

The Train-the-Trainer Program should cover the following areas:

- Adult Learning
- Designing Training
- Presentation Skills
- Facilitation Skills
- Leading Discussions
- Putting It All Together—on-the-spot presentations
- Evaluation Techniques—of trainee and self/trainer.
**Trainer Audit Guidelines:**

The audit of trainers/instructors shall be performed by the company signing authority who is, designated by their employer and authorized by MTCU, to be accountable for the quality of training, maintenance of training records and determining the competency of company workers for modular accreditation.

**The audit will include:**

- Annually auditing trainers/instructors to determine their effectiveness and compliance with standards for safety, quality and performance
- Evaluating the quality of lesson plans
- Observing the trainers/instructors’ teaching techniques for the four (4) basic criteria:
  - Learning
  - Behaviour
  - Delivery
  - Evaluation.
- Auditing trainee performance, including “hands-on” approach.