Denison Mines Corp.
Wheeler River Operation

Training Management Program

Document # 8

Version 2

March 2025

Approval for Use

Version	Date	Description of Activities	Author	Reviewer	Approver
Version 1	29-Sept-2023	For CNSC Review			
Version 2	04-Mar-2025	Content Updates	Logan McKay, Training Lead		

Revision History

Version	Date	Description of Revision
Version 1	29-Sept-2023	For CNSC Review
Version 2	04-Mar-2025	1.3 Program Overview and Principles – *updated wording and added detail.* 1.6.1 Definitions – *added definitions.* 2.5.1. Training Records – *added detail.* 3.3 Contractor Management – *added reference.* 4.2 Assessment Tools – *added detail.* 6.2 External Reference – *added references.*

Table of Contents

Figures

Introduction

The *Training Management Program* (the Program) is one of twelve Program documents that comprise the Management System for the Wheeler River Operation (the Operation). The *Training Management Program* is preceded by the *Management System Program* within the document framework for the Operation as shown in Figure 1. Consistent with all other Program documents, the *Training Management Program* is organized according to the 'Plan-Do-Check-Act' iterative process to incorporate continual improvement in all stages of the Program.

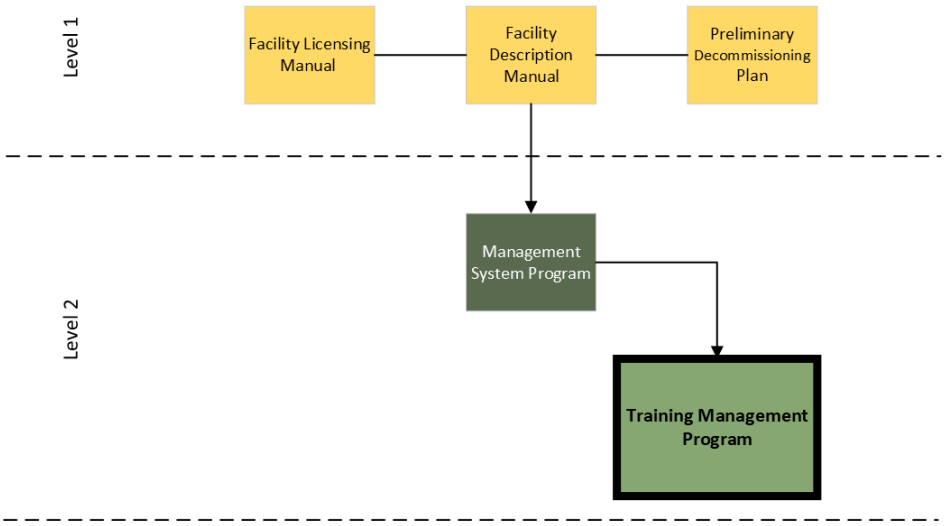

Figure 1: Program shown within Document Framework for the Wheeler River Operation

1.1 Purpose

The purpose of the Program is to describe and document Denison's framework for training management in a systematic and effective process.

The Program verifies that all workers have been deemed competent and qualified to perform duties related to the licensed activity being performed.

1.2 Scope

This Program applies to workers including contractors performing work at the Operation, and includes planning, delivering, evaluating, and improving processes to effectively manage and improve training-related licensed activities.

1.3 Program Overview and Principles

Denison recognizes the value of properly trained and fully competent workers to construct, commission, operate, and decommission the Project safely and reliably. This Program is designed to align with Denison's overall goal of protecting and promoting the health, safety, well-being of people, and environment through all phases of the project.

The Program confirms workers obtain the essential knowledge, skills, and tools to safely perform their duties through:

- Systematically defined, developed, and managed training;
- Compliance with applicable requirements; and
- Adopting a continual improvement approach to Program performance.

This Program will ensure all positions are systematically analyzed using the Systematic Approach to Training defined below. This ensures that positions where the consequence of human error poses a risk to the environment, the health and safety of persons, or to the security of the nuclear facilities and of nuclear substances receive appropriate training.

1.4 Systematic Approach to Training

The Systematic Approach to Training (SAT) identifies the learning outcomes required to complete a task, designing competent performance to complete the task, develops and delivers learner-focused training and evaluations for competent performance and consistent results.

The Operation follows the analysis, design, development, implementation, and evaluation (ADDIE) model of training development as illustrated in Figure 2. Each step of the model provides feedback for the training design team to support continual improvement.

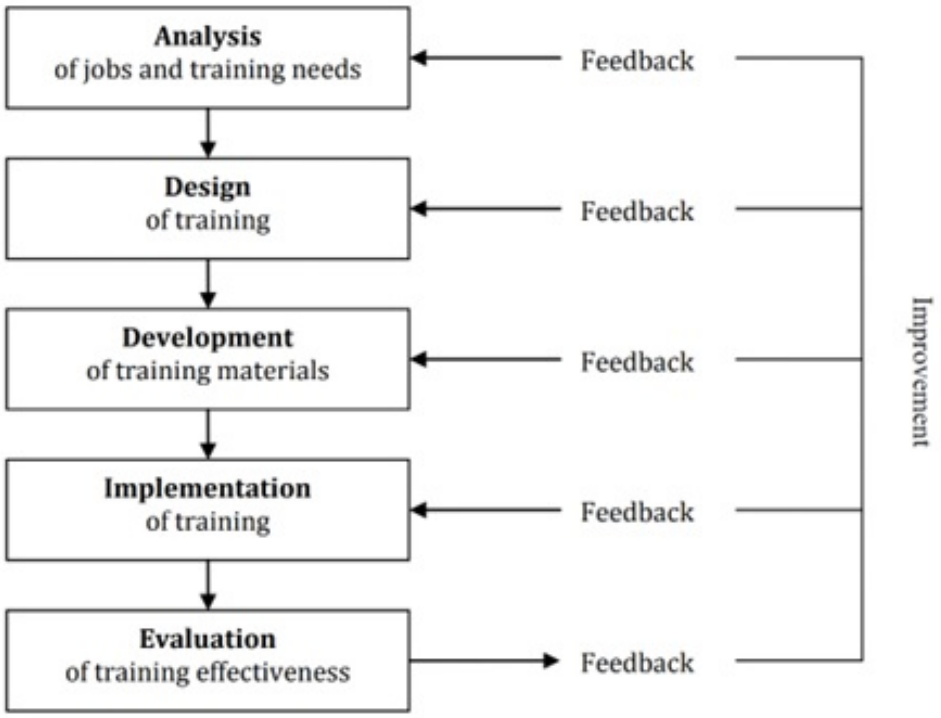

Figure 2: Systematic Approach to Training

1.5 Compliance with Regulatory Requirements

This Program is compliant with the *Nuclear Safety and Control Act (SC 1997, c.9)* and associated regulations, including the *General Nuclear Safety and Control Regulations (SOR/2000-202),* the *Uranium Mines and Mills Regulations (SOR2000-206).* The Program also follows guidance and requirements in the Canadian Nuclear Safety Commission (CNSC) REGDOC 2.2.2, *Personnel Training.*

Additionally, the Program meets provincial requirements from the *Occupational Health and Safety Regulations, 2020,* and *The Mines Regulations, 2018.*

1.6 Terminology

1.6.1 Definitions

Term	Definition
ADDIE	A generic process traditionally used by instructional designers and training developers. The five phases—Analysis, Design, Development, Implementation, and Evaluation—represent a dynamic, flexible guideline for building effective training and performance support tools
Hazard analysis	The process used to systematically identify and assess hazards to evaluate the potential internal, external, human-made, and natural events that can cause the identified hazards to initiate faults that develop into accidents
Instructional strategies	The combination of media, methods and environment used in the delivery of training
Instructional material	Any material (handouts, manuals, presentations, videos, etc.) created to facilitate learning
Lesson plan	A guide that instructors use to ensure that training is specific and goal oriented
Employees	Worker employed directly by Denison Mines
Contractors	Workers employed by a company outside of Denison Mines
Site Management	Supervisory roles and above are considered management
Workers	Defines all workers at the Operation, including both Denison employees and contractors
Enabling Learning Objective	A specific, measurable statement that breaks down a broader learning goal (known as a terminal learning objective) into smaller, more manageable parts
Terminal Learning Objective	Clear statements that describe what learners should know or be able to do after the training

1.6.2 Acronyms and Abbreviations

Acronym or Abbreviation	Term
ADDIE	Analysis, Design, Develop, Implement, Evaluate
CA	Corrective action
CNSC	Canadian Nuclear Safety Commission
ELO	Enabling learning objectives
FLRA	Field Level Risk Assessment
JDA	Job Duty Analysis

JHA	Job Hazard Analysis
JO	Job Observation
JTA	Job task analysis
OJB	On the job training
PDCA	Plan, Do, Check, Act
SAT	Systematic Approach to Training
SME	Subject Matter Expert
TAA	Target audience analysis
TCA	Trainee Characteristic Analysis
TLO	Terminal learning objectives
TNA	Training Needs Analysis

Plan

2.1 Training Analysis and Design Phases

In accordance with SAT methodology, training analysis and design phases are initiated based on triggering events such as new or revised regulatory requirements, engineering design and equipment changes, operational changes, revised procedures, modifications, and operating experience feedback.

2.1.1 Training Analysis Phase

Analysis is the first phase of SAT and is the foundation of any training course or training program, and. specifies required outcomes of training in terms of essential on-the-job performance. Analysis includes input from workers, end-users, subject-matter experts, and training development experts.

Components of the training analysis phase include:

- Completing a training needs analysis that reviews existing training, identifies knowledge gaps, and establishes priorities to aid in design and development phase;
- Quantifying if training is required (no train), required (train), or ongoing (re-train);
- Performing a job task analysis to develop an overview of the knowledge, job tasks, and responsibilities required by specific roles that workers must master to be successful; and
- Performing a target audience analysis to determine the numbers and categories of workers to be trained and, where possible, the characteristics of workers who will receive the training.

2.1.2 Training Design Phase

The design phase of SAT selects and describes training and the environment that will enable trainees to achieve requirements determined in the analysis phase. It includes:

- Assessing and documenting trainee characteristics;
- Determining the knowledge, skills, and attributes required to perform a task for completing instructional program design; and
- Creating a learning assessment plan that uses formal evaluations to verify trainees successfully achieve required outcomes.

2.2 Risk Management

Risk management identifies, assesses, and controls risks to workers, the environment, systems, facilities, and equipment associated with a task or process. The Operation adopts a consistent and integrated approach to risk management to identify, manage, and mitigate risk. Training forms an integral part of the risk mitigation process.

2.2.1 Hazard Identification

Health and safety hazards are conditions or agents that can potentially cause harm in the form of physical injury, illness, or disease from differing work environments, conditions, circumstances, or the characteristics of physical, chemical, biological, or psychosocial agents.

Hazards are identified using appropriate types of assessment which are documented and tracked. Typical assessments include job hazard analyses (JHAs) and field level hazard assessments (FLHAs).

Ensuring workers have the proper skills and abilities to safely execute the required tasks is accomplished through training and experience.

2.2.2 Risk Register

Denison uses a risk register to proactively identify and address significant training and performance aspects, prioritize resources, and continuously improve its training management practices. The risk register is a central repository for recording and tracking information related to the significant training aspects.

The risk register may include information such as: risk identification, risk assessment, risk analysis, risk evaluation, risk prioritization, risk mitigation, risk monitoring and review. Further details on the risk register are provided in the *Management System Program*.

2.3 Objectives and Targets

Objectives and targets are documented actions resulting in advances to Program outcomes, and are identified within the Analysis Phase, defining safety and operational concerns. Training addresses learning objectives specific to safety critical and associated tasks.

Objectives and targets of this Program will be measurable, documented, and tracked. Performance against the objectives and targets will be communicated at regular intervals (i.e., during Management Review), and opportunities for continual improvement will be identified.

The process for setting overall objectives and targets is outlined in the *Management System Program* and supporting procedure.

2.4 Resources

Denison is committed to providing the necessary resources to support effective development, implementation, maintenance, and continual improvement of the Program, including achievement of its objectives and targets.

2.4.1 Roles and Responsibilities

This subsection outlines the specific roles and responsibilities within the Program, including Site Management positions, Training Specialist, Training Coordinator, Department Supervisors, and other workers with various levels of responsibility.

Denison's Vice President of Operations is responsible for implementation of this Program. For effective implementation of this Program, workers are informed of their roles and responsibilities and are accountable for comprehending and performing them. Executive and Leadership level roles and responsibilities are specified in the *Management System Program*.

<u>Site Management</u>

- Approving annual objectives and targets for this Program;
- Allocating adequate and appropriate resources to fulfill Program implementation;
- Confirm integration of the program requirements into Operation processes;

- Communicating the importance of effective management and of conforming to program requirements;
- Confirm program achieves intended results;
- Ensuring the operation has developed appropriate site-level documentation to implement this Program effectively, and
- Confirm independent oversight of processes through monitoring and auditing activities.

Training Specialist

- To oversee the development and implementation of this Program; and
- Setting program objectives and targets, monitoring performance, and preparing internal and external reports regarding program activities and outcomes.

Training Coordinator

- Deliver all training programs according to internal and external requirements;
- Securely maintaining all training materials and records;
- Confirm oversight of processes through monitoring and auditing activities;
- Reporting on Program performance and effectiveness to site management;
- Facilitating management review of this Program and maintaining associated records, including workers:
  - Performing assigned work duties; and
  - Monitoring compliance with their training requirements.

Department Supervisor

- Providing appropriate personnel for participation in the SAT process;
- Confirm workers are properly trained and qualified before being assigned work;
- Supporting the program objectives and targets; and
- Identify and supporting opportunities for continual improvement.

Workers

- Perform assigned work duties;
- Participating in training sessions as required; and
- Confirm compliance with their training requirements and report expiring or expired qualifications to their supervisor.

2.4.2 Facilities and Equipment

Training facilities and equipment to support the effective implementation of the Program and its related practices are provided to Program staff and applicable workers. Facilities are designed, constructed, operated, and maintained with consideration for worker health, safety, wellbeing, and compliance with legal requirements.

2.4.3 Legal and Other Requirements

Denison is committed to complying with all applicable legal and other requirements related to training management. Types of legal requirements applicable to the Operation include:

- Federal and provincial acts and regulations; and

- Licensing obligations and commitments.

The process for managing legal and other requirements is outlined in the *Management System Program*. Denison has established procedures to ensure compliance with these requirements and that compliance obligations are regularly reviewed. Any changes relevant to training compliance obligations are monitored and evaluated to determine if updates to the *Training Management Program* and its supporting Plans, Procedures, and Work Instructions are required.

2.5 Documentation and Records Management

Denison will establish and maintain documented Plans, Procedures and Work Instructions to ensure effective implementation of the Program. Documentation will be controlled, reviewed, and updated as necessary in accordance with the requirements in the *Management System Program*.

Documents and records will be generated as a result of implementation of the Program and completion of licensed activities. Examples of records generated specific to this Program include but are not limited to:

- Job task analysis;
- Course outlines;
- Course evaluations; and
- Records of worker qualifications.

Further information on documentation and records management is provided in the *Management System Program.*

2.5.1 Training Records

Denison will retain all training records of workers of the Wheeler River Operation within our Learning Management System. This system will ensure workers, supervisors, and managers have immediate access to training records related to work being assigned or performed, and that Program processes are followed.

Training records specific to the operation may include, but are not limited to:

- Qualifications and certifications granted or used by the operation to fulfill Program requirements;
- Expiration dates for time-sensitive qualifications and certifications;
- Requalification or recertification requirements;
- Developed courses; and
- Course evaluations.

2.6 Communication

Communication both with internal and external stakeholders is a critical element of the Program to promote a strong safety work culture. Relevant training information such as training requirements, expiring qualifications, training opportunities, and training results will be shared.

Internal and external communication principles and processes are further outlined in Denison's *Management System Program*. Avenues of internal communication will be established within relevant

departments to ensure that the flow of information from the field reaches those in coordinator or management roles and vice versa.

2.7 Change Management

Change is managed at the operation to protect workers, the environment, and property, and to ensure that regulatory requirements are met. The operation's change management process is outlined in the *Management System Program.*

Examples of changes captured by the process could include, but is not limited to changes to the:

- *Training Management Program* and supporting plans, procedures, and work instructions;
- Structures, systems, and components;
- Training regulatory requirements;
- Emerging operational risks; and
- Organizational changes.

Do

3.1 Training Development Phase

The Program develops training based on outcomes of the design phase. Instructional strategies are assessed and examined to verify the most effective and practical solution is selected to produce required training as determined in the analysis and design phases. On-the-Job Training

3.1.1 Instructional Materials Production and Procurement

The Program follows SAT processes in producing training materials at the Operation as well as procuring services through external vendors. Training obtained by workers through external vendors prior to arrival at the Operation must be verified by Denison to meet requirements.

Training development at the operation includes developing instructional materials to support the learning activities. Instruction materials include, but are not limited to:

- Instructor lesson plans;
- Interactive courseware (e.g., computer-based training); and
- Training aids (e.g., equipment, references, job aids, testing materials).

3.2 Training Implementation Phase

The fourth phase of the ADDIE model implements developed training so that trained workers can successfully perform required tasks to the described standards. Implementation of training will be monitored to verify learning has occurred, and arrangements for follow-up or additional training will be implemented when necessary.

3.2.1 Qualification Verification

Qualification verification is used to review and evaluate whether previous training and experience is adequate to grant qualification for a specific set of responsibilities or tasks.

3.2.2 On-the-Job Training

On-the-job training (OJT) is considered when one or more of the determined learning objectives is not suitable for traditional training methods (e.g., instructor-led, classroom). If OJT is necessary, then OJT learning objectives including performance statements, conditions, and standards.

3.3 Contractor Management

Documentation and verification of training records are required for all site workers. The qualification verification process applies to contractors and is performed after a contract is awarded and before beginning work. Contractors hired for their specialized training and knowledge provide documentation of these qualifications prior to work initiation. Further details are outlined in the *Contractor Management Plan.*

3.4 Incident and Deviation Reporting

Incidents include identified non-conformances, non-compliances, near misses, and opportunities for improvement. Workers and visitors are required to report information regarding health, safety, environment, process incidents (including near misses), and deviations.

Additional details on incident and deviation reporting can be found in the *Management System Program.*

Check

4.1 Training Evaluation Phase

The final phase of the ADDIE model evaluates implemented training by monitoring, measuring, and verifying trainees have acquired the knowledge, skills, and attributes required to perform the job.

The evaluation phase includes:

- Formal evaluations (i.e., tests and assessments) of trainee ability to perform required tasks;
- Assessment and monitoring of instructional strategies and methodologies, course content, course training delivery and activities, and trainee evaluations so that corrective actions can be taken if required; and
- Assessment of training effectiveness by evaluating trainee ability to perform the tasks for which they were trained through information from trainees and supervisors.

4.2 Assessment Tools

Assessment tools appropriate for specific training are developed or procured in accordance with SAT processes. Assessments can be paper-based, verbal, practical demonstrations, or a combination of all.

Effectiveness of training and training materials is through review by subject matter experts, testing with workers representative of the target training audience, and feedback from supervisors after workers have completed the training.

The site Occupational Health & Safety Committee (OHC) will be notified and provided with new copies of the Program and Procedures when updates or changes are made.

4.3 Inspections and Audits

Denison will conduct internal audits of the *Training Management Program* to assure compliance with the requirements set out in the Program and to determine if the Program is effectively implemented and maintained.

The internal audits will follow the process and procedures outlined in the *Management System Program.*

4.4 Management Review

The *Training Management Program* will be reviewed by Denison management in accordance with a defined frequency to assure the defined Program is meeting its objectives, is effective, or needs adjustment. The types of items related to training and performance that Denison management will review may include:

- Suitability, adequacy, and performance of training objectives and targets;
- Upcoming or new legislation related to training;
- Results of audits in relation to Program performance objectives and targets;
- Identified opportunities for improvement based on incident reports and other sources;
- Adequacy of resources; and

- Need for program adjustment.

Where necessary, Denison management will identify opportunities for improvement and establish action plans to implement change in accordance with the process outlined in the *Management System Program.*

4.5 Reporting

Denison will routinely report both internally and externally on the performance of the *Training Management Program*. External reporting can include reporting to regulators, the public, and Indigenous and local communities.

External reports to regulators will be produced in accordance with regulatory requirements.

Act

5.1 Corrective Action

Non-conformities or areas for improvement are identified following the process outlined in the *Management System Program* and the supporting procedures. These non-conformities can include training incidents, near-misses, and deviations from the *Training Management Program.* Non-conformities can also be identified during inspections and audits.

Responses to identification of non-conformities include investigation of cause, and corrective action if appropriate. Corrective actions are planned, implemented, verified, and reviewed for effectiveness based on the process identified in the *Management System Program.*

5.2 Continual Improvement

Opportunities for improvement of this Program will be identified and addressed to enhance training performance. The continual improvement process for this Program follows the overall continual improvement process outlined in the *Management System* and the supporting procedures. Continual improvement may also include updating Program objectives and targets based on changing circumstances or new information. Improvement may involve benchmarking performance against other similar projects and facilities. Any changes identified through the continual improvement process will be implemented in a systematic and controlled manner.

With respect to training management, opportunities for continual improvement may be identified through review of training suitability, adequacy, and effectiveness.

References

6.1 Internal

Document Name
Management System Program
Training Analysis Procedure
Training Design Procedure
Training Development Procedure
Training Implementation Procedure
Training Evaluation Procedure
Contractor Management Program
Radiation Protection Program

6.2 External

Canadian Nuclear Safety Commission (CNSC) REGDOC-2.2.2, Personnel Training

General Nuclear Safety and Control Regulations (SOR/2000-202 under NSCA)

Uranium Mines and Mills Regulations (SOR/2000-206 under NSCA)

Occupational Health and Safety Regulations, 2020 (RRS c S-15.1 Reg 10 under the Saskatchewan Employment Act)

The Mines Regulations, 2018 (RRS c S-15.1 Reg)