Denison Mines Corp.
Wheeler River Operation

Management System Program

Document # 6

Version 2

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Approval for Use

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Version 1	September, 2023	For CNSC Review
Version 2	March, 2025	2 Organization – *added section containing information on organizational charts, roles and responsibilities, business planning, and safety culture.* 1.4.1 Definitions – *added definitions.* 4.7 Non-Conformance Reporting and Management – *updated section.*

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1 Introduction

The *Management System Program* (Program) is the cornerstone document for all other Program documents of the Wheeler River Operation (the Operation). It introduces the key processes and procedures that govern how the Operation is managed and is foundational to the eleven Programs following it in the document framework (as shown in Figure 1).

The processes and procedures included in this Program and supporting documents apply to all phases of the Operation and support development in a manner that is efficient, reliable, safe for workers, the environment, and community.

Consistent with all other Program documents, the *Management Systems Program* is organized according to the 'Plan-Do-Check-Act' iterative process to incorporate continual improvement in all stages of the Program.

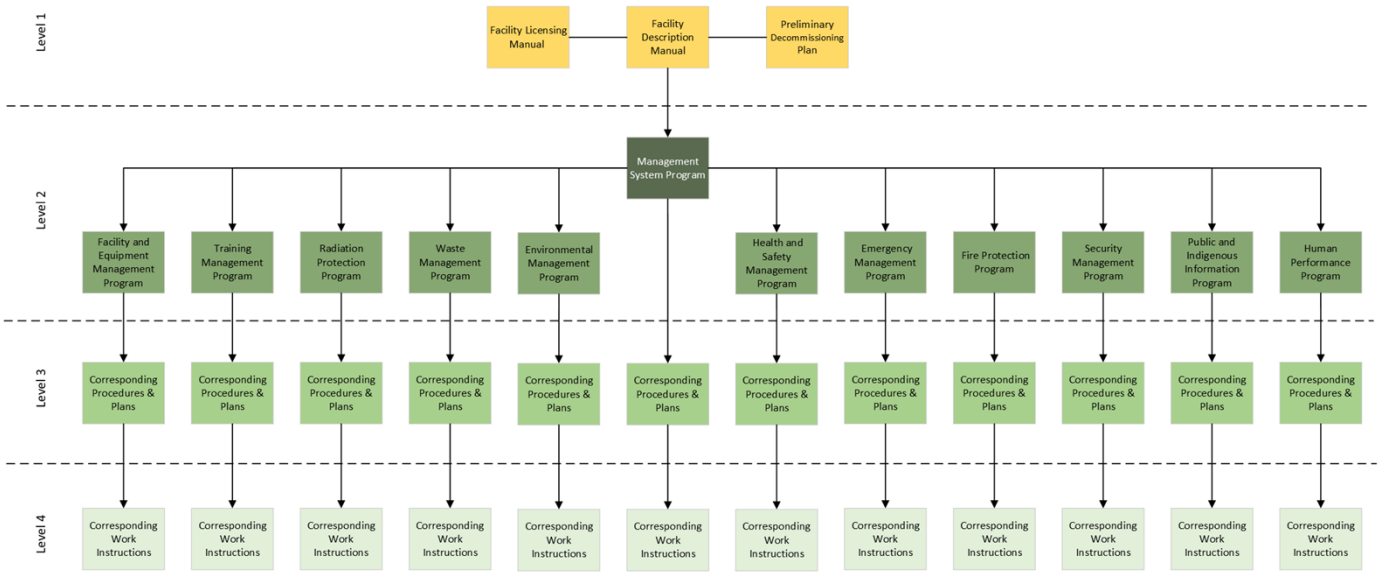

Figure 1: Document Framework for the Wheeler River Operation

1.1 Purpose

This Program provides the structure for the management of licensed activities at the Operation. This Program and the associated supporting programs, plans, procedures, and work instructions describe the systematic management of activities. Activities are managed to achieve consistent product, process, and support services that protect the workers and the environment and comply with legal and other requirements. This Program also describes the organization of the Wheeler River Operation and position responsibility.

1.2 Scope

The *Management System Program* integrates the management practices into a documented, managed, and auditable process, and encompasses:

- Supporting the Operation's commitment to safety, health, and the environment;
- Meeting stakeholder (e.g., local communities, indigenous groups, customers, regulators, shareholders, governments, the public) expectations;
- Supporting activities, processes, and services that consistently meet the needs and expectations of stakeholders in a manner that is integrated with business processes;
- Providing a framework for all programs and underlying processes;
- Following the Plan-Do-Check-Act (PDCA) framework and continually improving processes; and
- Following a risk-based approach which is graded to align the level of risk and control.

1.3 Program Principles and Denison's Environment, Health, Safety & Sustainability Policy

Denison's leadership and employees are committed to managing the Operation in accordance with it's corporate *Environment, Health, Safety & Sustainability (EHSS) Policy*. The *Management System Program* is based on the principles outlined in the EHSS policy, and can be found at Denison's website Environment, Health, Safety & Sustainability Policy.

Policy principles for development, implementation, maintenance, and application of the management system processes include:

- Promoting safety and protection of the environment as the paramount consideration;
- Fostering a strong safety culture;
- Identifying, assessing, documenting, and managing work processes;
- Identifying, assessing, and managing risk;
- Applying controls that are proportionate to the level of risk;
- Checking, assessing, and auditing processes to confirm adherence to requirements;
- Benchmarking and using experience from internal and external sources to improve processes;
- Reporting, recording, and evaluating incidents, near-misses, relevant information, and experience to implement preventive actions, corrective actions, and continually improve the management system;
- Managing information including records and documents;
- Managing contracted work;
- Managing effective and timely internal, external, and regulatory communication;
- Managing physical, process and organizational change; and
- Managing human and physical resources and assets.

1.4 Compliance with Regulatory Requirements

This Program is compliant with the *Nuclear Safety and Control Act* and associated regulations, including the *General Nuclear Safety and Control Regulations,* the *Uranium Mines and Mills Regulations.* The Program also follows guidance and requirements in the Canadian Nuclear Safety Commission (CNSC) REGDOC 2.2.1 *Management Systems.*

Additionally, the Program meets CSA 286-12 *Management system requirements for nuclear facilities.*

1.5 Terminology

1.5.1 Definitions

Term	Definition
Employees	Worker employed directly by Denison Mines
Contractors	Workers employed by a company outside of Denison Mines
Workers	Defines all workers at the Operation, including both Denison employees and contractors
Third Party	Independent evaluations conducted by external organizations

1.5.2 Acronyms and Abbreviations

The following acronyms and abbreviations are commonly used in the Program.

Acronym or Abbreviation	Term
ADDIE	Analysis, Design, Development, Implementation, and Evaluation
ALARA	As Low as Reasonably Achievable
CM	Construction Management
FMEA	Failure Mode and Effects Analysis
FEMP	Facilities and Equipment Management Program
FLRA	Field Level Risk Assessment
HAZOP	Hazard and Operation Study
IAEA	International Atomic Energy Agency
ISR	In-situ Recovery
JHA	Job Hazard Analysis
KPI	Key Performance Indicators
MS	Management System
SAT	Systematic Approach to Training
SMARTER	Specific, Measurable, Achievable, Relevant, Time-Bound, Evaluated, and Reviewed

2 Organization

2.1 Business Planning

Denison's senior management team along with board members meet regularly for the purposes of strategic and business planning, resource planning, dealing with issues and discussing any recent events. Senior management is responsible for:

- Creating vision, values and policies
- Identifying requirements and expectations
- Establishing objectives
- Identifying and controlling risks to the objectives
- Establishes plans, measures and targets
- Measuring and monitoring to achieve planned results

The Corporate Legal Secretary retains minutes of the meetings.

Senior management along with board members will ensure that the Wheeler River Operation has the resources necessary to carry out the business plan.

2.2 Wheeler River Operation Management Team

The Vice President, Operations is the most senior person related to the Wheeler River Operation, having authority over all operational activities at the Wheeler River Operation. All site personnel will report to the Vice President, Operations, who reports to the President & CEO for Denison Mines Corp. The Vice President, ESR is responsible for managing work affecting the Management System Program at the Wheeler River Operation.

Each of the Vice Presidents are responsible within their own department for:

- The work being carried out safely by personnel within their own department
- Ensuring that personnel are competent, adequately qualified, experienced and trained to perform the duties of their position
- That expectations for performance shall be established and employees tested against them
- Workers will be provided feedback on their performance
- Ensuring that employees understand the Management System, and this Program which includes procedures and work instructions necessary for their position
- Ensuring that employees and contractors understand and work to the Environment, Health, Safety & Sustainability policy

The senior management team has the authority for implementing the requirements set out in the Management System Program and the other Programs mentioned in Section 3.5 Work Planning.

2.3 Leadership

Safety of workers, the public and the environment is of paramount consideration guiding decisions and actions. A primary responsibility of leadership is promoting a strong safety culture and providing the resources and processes to support work practices that demonstrate the commitment to safety. Safety Culture processes are outlined in the *Health and Safety Management Program*.

Leadership provides the purpose and direction for the Operation and work performed. Leadership is committed to implementing and maintaining this Program and its associated processes to define, plan, and control of the Operation activities. Leadership actively promotes Program requirements to employees and contractors to support excellence in work performance through its Leadership suite of documents.

Leadership provides direction to workers through the use of daily toolbox meetings, weekly and monthly safety meetings where a variety of Health & Safety topics are discussed.

Safety culture throughout Denison is periodically assessed through the use of anonymous safety culture surveys. Safety culture is assessed by key performance indicators and leading indicators such as near miss reporting and hazard reporting.

2.4 Wheeler River Operation

The Wheeler River Operation consists of four main departments:

Operations Department:

- Design and construction of the Wheeler River Operation and support facilities;
- Site wide training programs, along with Health & Safety and Radiation Protection programs; and
- The Integrated Project Team.

Environment, Sustainability & Regulatory Department:

- Gain regulatory approvals necessary for construction and eventual operation;
- Responsible for Environment, Sustainability and Governance (ESG) reporting as well as public and Indigenous engagement processes; and
- Monitor and report the effects of the operation on the environment.

Technical Services & Project Evaluation Department:

- Design of the In-Situ Recovery Wellfield and Freeze Wall.

Supply Chain Management Department:

- End to end cycle of sourcing goods or services through payment, logistics, warehousing and procurement of materials.

2.4.1 Staff responsibilities

Personnel, regardless of their position (contractor or employee) are responsible for the following:

- The function of their position
- Environmental management

- Radiation protection
- Occupational health and safety

2.5 Overview of Organization

2.5.1 Operations

The Operations Department concentrates on the construction of the Wheeler River Operation. This includes civil works of the site, engineering design and construction of the plant and its auxiliary facilities, operational readiness in preparation for Operation and oversight on conventional health and safety and radiation protection measures.

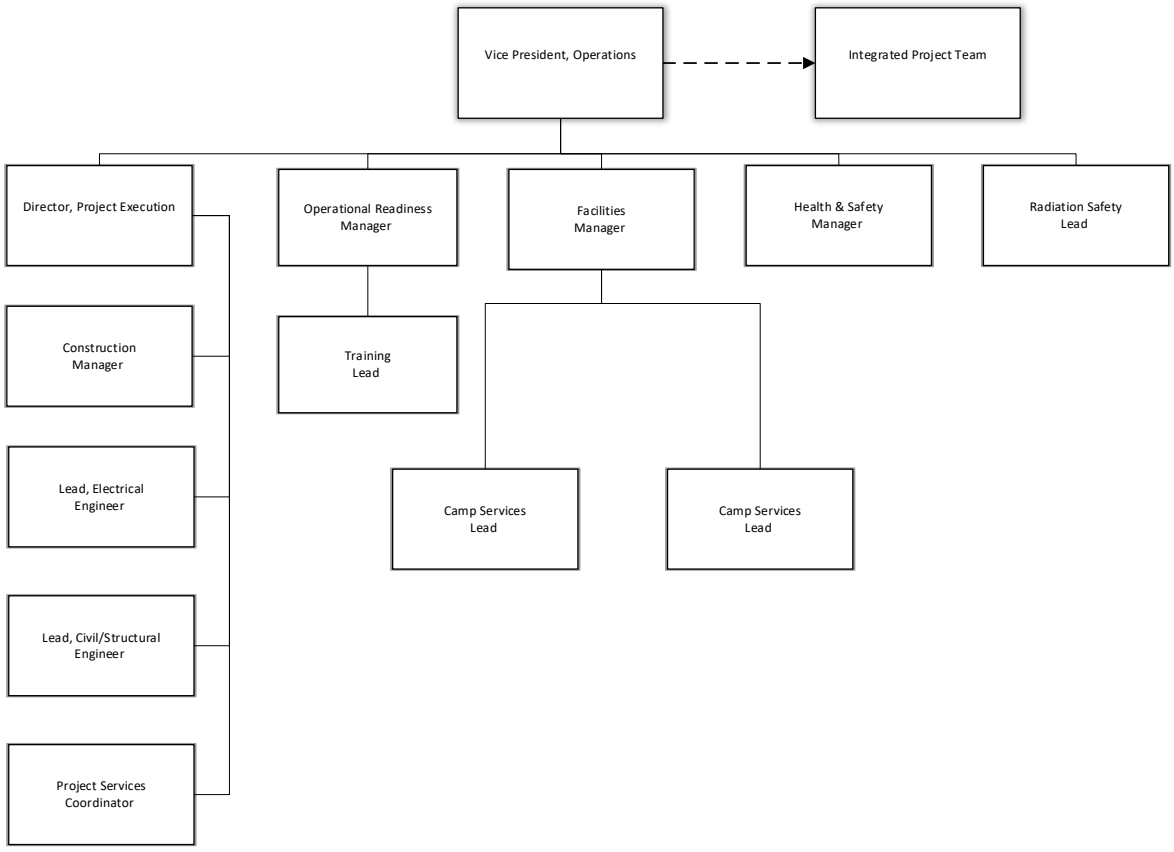

Figure 2 Operations Group

Vice President, Operations

Responsible for the overall construction and operation of the Wheeler River Project, including the wellfield, process plant and other auxiliary facilities.

Director, Project Execution

Responsible for overall engineering and project execution deliverables.

Construction Manager

Responsible for ensuring construction activities are consistent with Project Execution Plan.

The intermediary between Denison and the Construction Management Contractor.

Lead, Electrical Engineer

Responsible for the design of electrical components of the Project

Lead, Civil/Structural Engineer

Responsible for planning and design of civil grading, buildings and infrastructure.

Operational Readiness Manager

Responsible for operational planning.

Training Lead

Responsible for the Training Program for the operation.

Facilities Manager

Responsible for overseeing Wheeler River camp and its facilities.

Camp Services Lead

Oversee the day-to-day operations of camp, hospitality staff and guests at Wheeler River.

Health & Safety Manager

Responsible for the Health & Safety Program, as well as training related to Health & Safety.

Radiation Safety Lead

Responsible for the Radiation Protection Program.

2.5.2 Integrated Project Team (IPT)

This Project is a large-scale project and involves a contracted Construction Management team integrated with Denison's project team to ensure the safe and efficient execution of the project deliverables.

The Project Sponsor has overall responsibility for the efficacy of the Project. The Project Sponsor authorizes the execution of the Project, including the scope, budget, schedule and contractual arrangements. The Project Sponsor for the construction of the Project is the Vice President, Operations.

Note: the organization chart showing in green are Denison employees that will be a part of the IPT. Their roles and responsibilities can be found in: Section 2.5.3, ESR & Section 2.5.1, Operations.

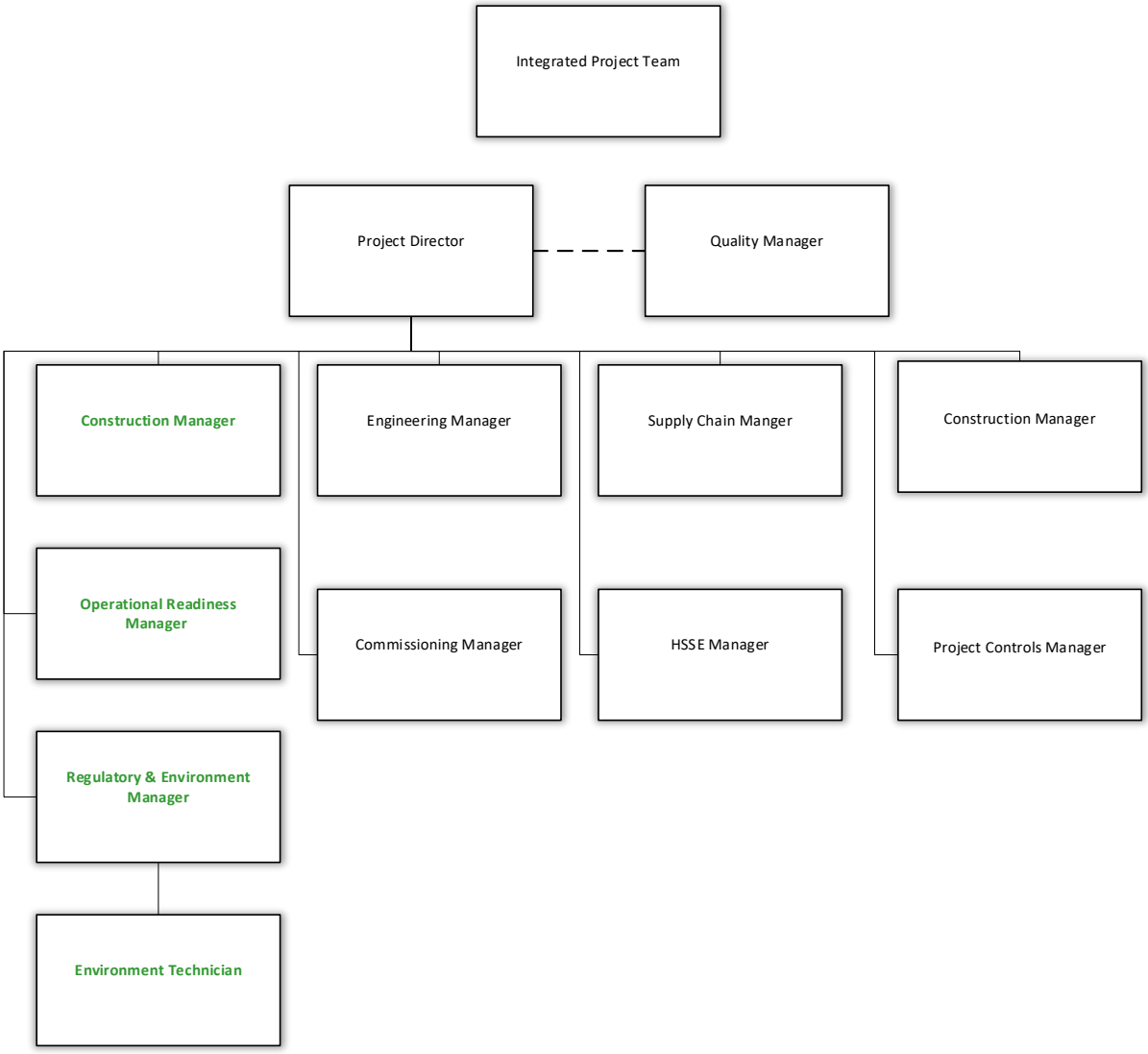

Figure 3 Integrated Project Team

Project Director

Provide leadership to the project team on all matters and ensure employees carry out their duties and responsibilities. Includes providing adequate resources to achieve desired outcomes.

Quality Manager

Responsible for leadership and execution on all matters pertaining to quality management with respect to pertinent requirements.

Engineering Manager

Reports directly to Project Director, is responsible for managing the disciplines Lead Engineers.

Responsible for safe design and implementation of the facility.

Commissioning Manager

Responsible for testing and operating of equipment and systems for the first time after electrical and mechanical completion.

Ensures the design criteria is followed.

Supply Chain Manager

Deals with project requirements for contracts and supplies. Develop RFP packages, and ensures efficient warehousing of goods ordered for the project.

Construction Manager

Responsible for management of all onsite activities required to successfully complete construction.

HSSE Manager

Responsible for the Health, Safety, Security and Environment of the construction site.

Assist and advice the Project Director and Construction Manager in meeting HSSE objectives and targets.

Project Controls Manager

Ensures the cost control of the project. Creates and maintains project controls file, monitors progress of the project according to schedule.

Ensures the coordination and management of all work interfaces with engineering, supply chain management, construction, commissioning, information management, finance, quality and the Denison project team.

2.5.3 Environment, Sustainability & Regulatory (ESR)

The ESR Department is working towards gaining the licenses required to begin construction and the eventual operation of the Wheeler River Operation. The department also monitors and reports on the environment, as well as environment, sustainability and governance reporting. The department is also involved in community engagement, and corporate social responsibility. The ESR Department champions the management system, continual improvement activities and ensures that construction and eventual operation will be in compliance with regulatory requirements.

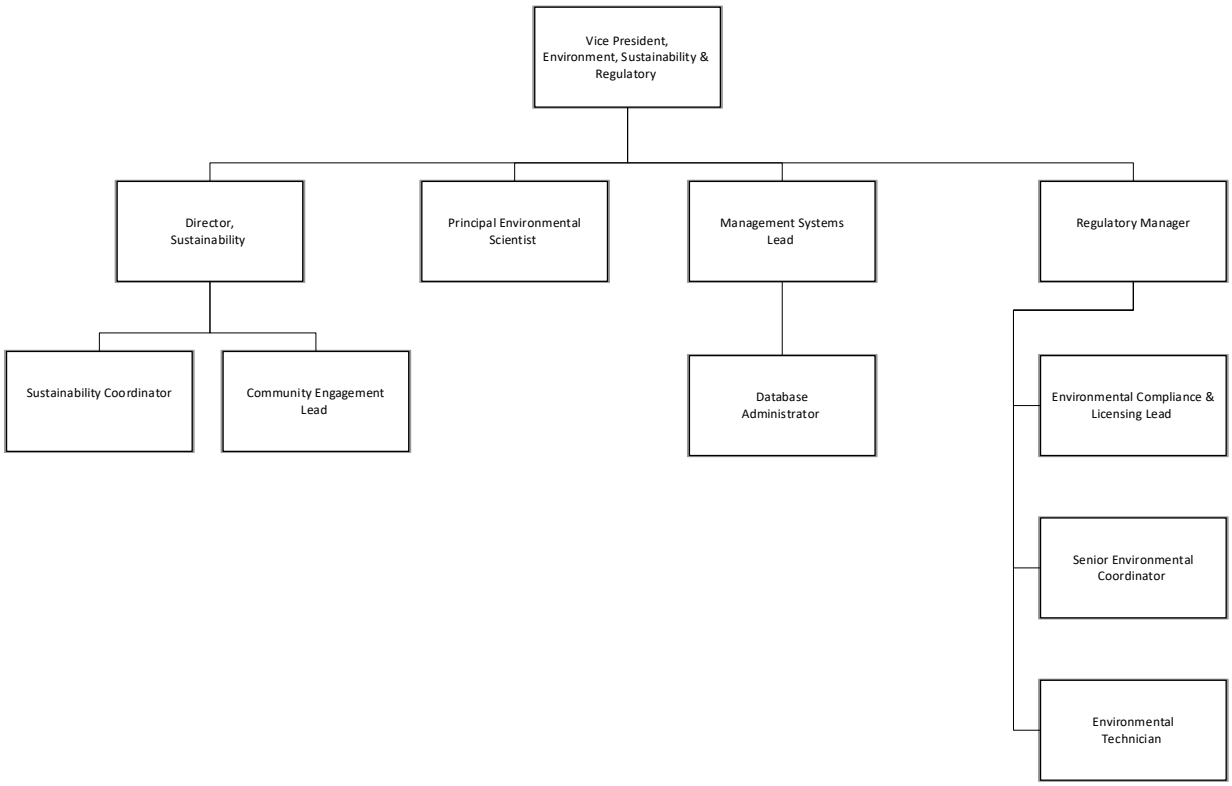

Figure 4 Environment, Sustainability, Regulatory Group

Vice President, Environment, Sustainability & Regulatory

Responsible for overall project permitting and licensing, including adherence to management system programs, environmental program, as well as public and Indigenous engagement.

Director, Sustainability

Oversees public and Indigenous engagement and ESG reporting.

Sustainability Coordinator

Responsible for ESG reporting.

Community Engagement Lead

Responsible for community engagement with communities of interest and stakeholders.

Principal Environmental Scientist

Provide scientific knowledge and lead environmental policy implementation.

Management Systems Lead

Responsible for the Management System Program.

Database Administrator

Responsible for the administration of Denison databases related to environment, health & safety, document control, compliance tracking module.

Regulatory Manager

Responsible for CNSC & SMOE licensing, as well as oversight of the Environmental Monitoring Program.

Senior Environmental Coordinator

Assist with SMOE licensing and permitting for the project and ancillary facilities.

Manage consultants and assist with collection of baseline environmental data.

Environmental Technician

Conduct field work duties of the environmental monitoring program.

Assist with regulatory reporting.

Environmental Compliance and Licensing Lead

Responsible for CNSC licensing.

2.5.4 Technical Services and Project Evaluation

The Technical Services Group is responsible for providing technical aspects of the Wheeler River Operations wellfield.

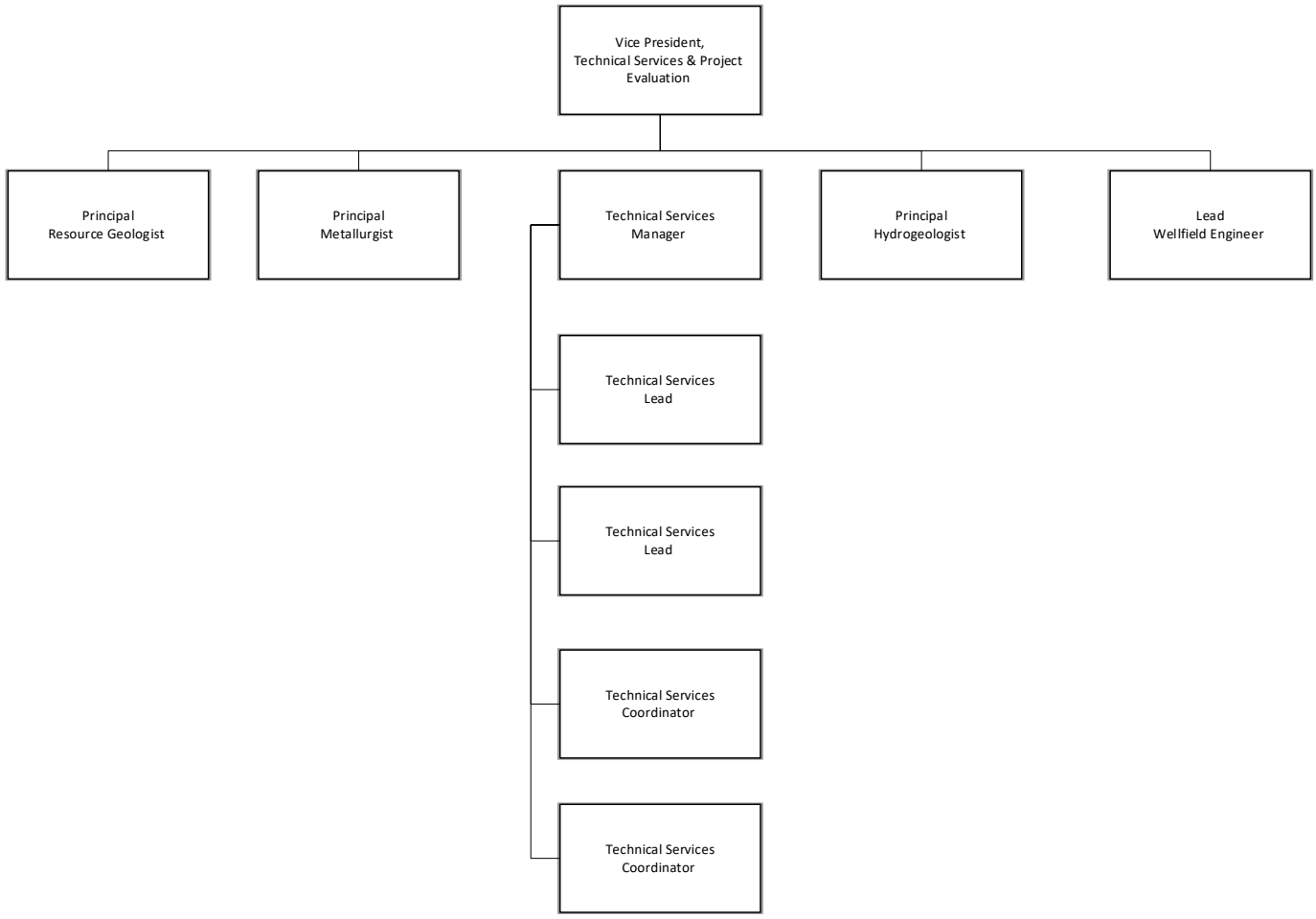

Figure 5 Technical Services and Project Evaluation Group

Vice President, Technical Services and Project Evaluation

Provides technical oversite of the construction and operation of the wellfield.

Principal Resource Geologist

Responsible for providing mineral resource models and geological oversight for Wheeler River and data collection in support of technical studies, mine designs and productive decisions.

Principal Metallurgist

Responsible for metallurgical oversight of Wheeler River, including test work to support process design and optimization.

Technical Services Manager

Responsible for managing assessment of development stage and technical services for assessment of mining method for Wheeler River.

Technical Services Lead

Responsible for executing program to assess development stage and technical services for assessment of mining method for Wheeler River.

Technical Services Coordinator

Responsible for collecting field data to assess development stage and technical services for assessment of mining method for Wheeler River.

Principal Hydrogeologist

Responsible for hydrogeological oversight of Wheeler River, including test work, modeling to support process design and optimization.

Lead Wellfield Engineer

Responsible for the design of the wellfield and associated equipment that satisfies the requirements of the technical services team.

2.5.5 Supply Chain

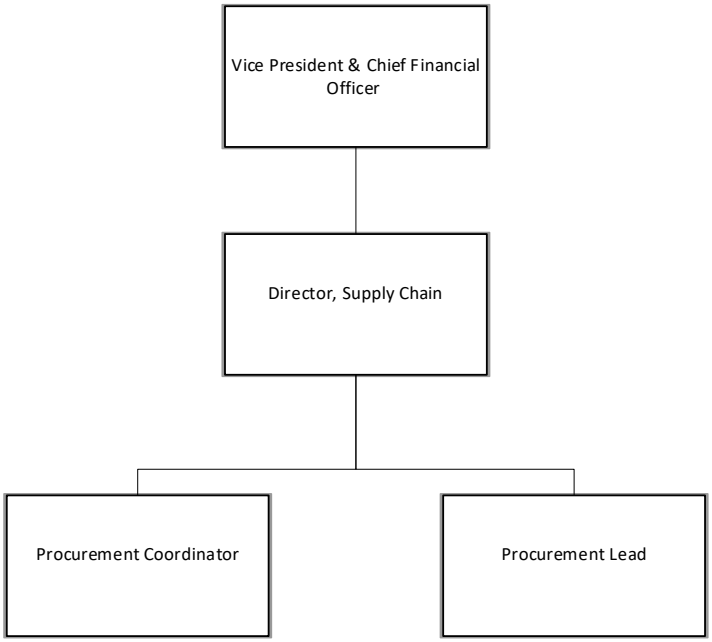

Figure 6 Supply Chain Group

Vice President, Finance & Chief Financial Officer

Ensures the project has the adequate resources to achieve desired outcomes.

Director, Supply Chain

Responsible for the procurement and delivery of materials and services, in addition to logistics and materials management, within the established project budget and schedule. Oversight of Denison's supply chain group.

Procurement Lead

Responsible for development and release of RFP packages, creating purchase orders, negotiating terms and contracts, strategic sourcing of goods and services.

Procurement Coordinator

Responsible for the development of supply chain reports and analysis, coordination of NDAs, issuing of purchase orders, setting up vendors, strategic sourcing of goods, expediting.

3 Plan

3.1 Objectives and Targets

Objectives and targets consistent with strategic plans, EHHS policy and the management system are developed and documented to support alignment of activities.

Objectives are specific, measurable, achievable, relevant, time-bound, evaluated, and reviewed (SMARTER). Targets and associated processes are developed where required to support objectives and mitigate associated risks.

Progress is monitored, measured, and key performance indicators (KPIs) are developed and adjusted as required for critical indicators to mark progress toward completion.

Processes related to objectives and targets are described in the procedure *Objectives and Targets*.

3.2 Resources

The Operation provides, manages, and assesses workers, equipment, facilities, and supporting services required to conduct activities in a safe, reliable manner that protects workers and the environment. Financials are managed to provide assets and competent workers to meet Operation obligations and objectives.

Resources to support the Management System are required by the Operation to ensure the effective and efficient application of the policies, processes and procedures used to achieve its objectives.

3.2.1 Roles and Responsibilities

The roles and responsibilities of workers are defined to provide for alignment with the requirements to safely and efficiently execute the duties and expectations.

Denison management is responsible for:

- Promoting and supporting a safety culture throughout operation activities;
- Providing resources needed to comply with requirements; and
- Following and promoting the requirements of the management system.

Operation management is responsible for:

- The effectiveness of the management system;
- Establishing processes and practices so that workers take responsibility for their safety and safety of others;
- Fostering a healthy safety culture;
- Verifying workers have access to tools, equipment, and required training for performing tasks; and
- Establishing that workers conducting licensed activity are provided with equipment, devices, clothing and procedures in accordance with requirements.

Operation supervisor is responsible for:

- Supervising workers in the area of responsibility in a manner that conforms to management system requirements;

- Promoting and supporting the expectation established by Operation management;
- Assigning tasks to competent workers;
- Require that every person at the site of the licensed activity uses equipment, devices, clothing and procedures in accordance with requirements; and
- Verifying quality of work conducted in their area of responsibility.

Workers and contractors are responsible for:

- Adhering to the management system, legal and other requirements;
- Adhering to Operation training requirements;
- Mitigating the effects of an incident or deviation, if safe to do so;
- Reporting incidents and deviations to supervisor as soon as practicable;
- Performing work safely to protect self and others;
- Checking work inputs, processes and outputs for conformance to requirements and quality of product; and
- Using equipment, devices, clothing and procedures in accordance with requirements.

3.2.2 Legal and Other Requirements

Denison is committed to complying with all applicable legal and other requirements. Internal and external requirements applicable to the Operation are identified, assessed, and managed. External requirements include legal, regulatory, and other requirements with which the Operation chooses to comply. Internal requirements that arise from the management system process requirements and stakeholders (e.g., workers, contractors).

Requirements are regularly monitored, reviewed, and identified changes are managed through the change management process. Legal and other requirements, including identified changes, are communicated to those responsible for managing conformance and compliance.

Processes associated with identifying, assessing, and managing legal and other requirements are described in the procedure *Legal and Other Requirements*. Processes associated with change management are described in the procedure *Change Management*.

3.3 Risk Identification and Assessment

Risks are systematically identified and assessed to prepare appropriate mitigation and control measures. Risk is managed to acceptable levels in alignment with Denison's EHSS Policy and other Corporate Policy expectations.

3.3.1 Hazard and Risk Identification and Analysis

A systematic approach to hazard and risk identification is applied to all licensed activities. Actual and potential hazards and risks are identified using a variety of methods including, but not limited to:

- Use of experience;
- Audits and inspections;
- Process identification and description;
- Incident reporting and cause analysis;
- Workplace observation reporting;

- Monitoring and measurement processes; for example:
  - Noise monitoring;
  - PPE effectiveness monitoring;
- Formal methodologies which may be applied:
  - Job hazard analysis (JHA);
  - Field level hazard assessment (FLHA);
  - What-if analysis;
  - Hazard and operational study (HAZOP); and
  - Failure mode and effects analysis (FMEA).

Following identification, hazards and risks are analyzed in a systematic manner to determine the risk ranking. Risk rankings are numeric values which represent the priority of the risk. Risk ranking are determined using a risk matrix which considers the likelihood and severity of an actual or potential occurrence. The results of this identification and assessment are documented in a risk registry.

3.3.2 Risk Registry

Identified hazards and risk are documented in a risk registry that includes a record of identified controls to mitigate the risk to an acceptable level. The risk registry is a controlled record, updated regularly, and maintained in accordance with the records management process.

The risk registry is consulted during management decision-making, analysis of proposed changes, and to assist in identification of opportunities for improvement.

Processes related to risk registry and risk management are described in the procedure *Risk Management*.

3.4 Work Planning

Work is planned to maintain the health of the Operation including the protection of the health and safety of workers and the environment. A series of approved Programs with supporting documentation describe the processes and controls used to manage work. The programs describe the processes followed for licensed activities at the Operation.

Work is planned to conform to the management system and regulatory requirements. Work plans include a description of the work, requirements for completion, materials, tools, resources, critical steps, plus sequencing, and scheduling. Approved work plans are assigned to trained competent workers and completed using approved processes, resources, and material. The final product of this work is verified as acceptable prior to the work being considered complete.

The *Management System Program* establishes the basis to which all other safety and control area programs are planned to ensure a consistent and efficient application of program elements. The objectives of each program are summarized in the following subsections.

3.4.1 Training Management Program

The *Training Management Program* and associated processes confirm workers are competent and qualified to perform required duties through use of a systematic approach to training (SAT).

The Program establishes and maintains documented procedures for identifying the training needs of the company, provides training to personnel performing activities affecting quality management, qualifies

personnel performing specific assigned tasks based on appropriate education, documents and maintains appropriate training and qualification records, and verifies that all workers have been trained to ensure they are fully qualified to perform their duties in accordance with the current regulatory requirements.

3.4.2 Facilities and Equipment Management Program

The *Facilities and Equipment Management Program* ensures that work activities are identified, planned, and controlled, and to ensure that design, selection, procurement, onboarding, and maintenance of site facilities and equipment are carried out under controlled, optimized conditions in a consistent manner.

The Operation confirms that required equipment, facilities, infrastructure, and supporting services are adequate and assessed to verify conformance to quality requirements. Processes related to facilities and equipment include, but are not limited to:

- Asset control;
- Supply chain management;
- Facilities management;
- Equipment management;
- Construction management;
- Commissioning management;
- Design control; and
- Contractor management.

3.4.3 Security Management Program

The *Security Management Program* defines the requirements and framework to promote employee safety, property protection and effectively manage security risks of workers, the public, and the environment.

The Program integrates Denison's security measures into a documented, managed, and auditable process. Key approaches include:

- Identifying, mitigating, and managing security risks;
- Identifying, implementing, and maintaining controls of security risks; and
- Maintaining a safety culture focused on continual improvement of the Program.

3.4.4 Health and Safety Management Program

The *Health and Safety Management Program* defines the requirements, processes, and framework used to promote the health and safety of workers and establish a strong safety culture. The Program integrates Denison's health and safety measures and processes into a documented, managed, and auditable process.

The Program promotes a risk-based, systematic approach to managing risk and occupational health and safety hazards at the Operation.

3.4.5 Emergency Preparedness and Response Program

The *Emergency Preparedness and Response Program* provides processes and structure for overall crisis planning efforts. It further provides a framework for development of the site emergency response plan,

processes, work instructions, and further supporting documentation. The EPRP also identifies the plans, outlining specific requirements for emergency response, Wheeler River transportation emergency response, and corporate crisis management.

3.4.6 Fire Protection Program

The *Fire Protection Program* establishes the fire protection goals and associated safety performance criteria. The Operation is designed, operated, inspected, tested, and maintained so that the fire protection goals, and safety performance criteria are achieved.

The Program adheres to a defense-in-depth principle which is used to achieve a high degree of fire protection by providing redundancy, diversity, and balance in fire protection measures.

3.4.7 Environmental Management Program

The *Environmental Management Program* describes and documents Denison's framework for environmental protection in a systematic and effective process which promotes improved environmental performance. It utilizes a risk-based approach to identify environmental protection measures, which is informed by and commensurate with the nature and complexity of the potential interactions of the Operation with the environment.

The Program encompasses:

- Identifying and managing environmental risks;
- Identifying, implementing, and maintaining pollution control activities;
- Effluent and emissions monitoring; and
- Environmental monitoring.

3.4.8 Radiation Protection Program

The *Radiation Protection Program* defines the requirements, and framework to promote radiation safety and effectively manage radiation risks of workers, the public, and the environment.

This Program integrates Denison's radiation protection measures into a documented, managed, and auditable process. Key approaches include:

- Identifying, mitigating, and managing radiation risks;
- Identifying, implementing, and maintaining controls on radiation exposure;
- Keeping exposures in the workplace and the environment ALARA considering social and economic factors;
- Ensuring that workers have the necessary tools, qualifications, and training to perform their work safely in a manner that protects the environment; and
- Maintaining a safety culture focused on continual improvement of the *Radiation Protection Program*.

3.4.9 Waste Management Program

The *Waste Management Program* describes and documents Denison's waste management which governs the waste management practices and proposes effective strategies for minimizing waste generation, improving waste segregation, and implementing sustainable waste management techniques.

The primary goal of this program is to establish a practical roadmap that effectively mitigates the environmental consequences associated with waste, optimizes resource allocation, fosters recycling and reuse initiatives, and improves overall waste management efficiency.

3.4.10 Public and Indigenous Information Program

The *Public and Indigenous Information Program* outlines Denison's policy, principles, and plan to communicate with Indigenous groups and members of the public in support of the development and maintenance of meaningful relationships in relation to the Operation, while also ensuring that information related to the health, safety and security of persons and the environment, and other issues associated with the lifecycle of nuclear facilities are effectively communicated more broadly. The Public Disclosure Protocol is defined within this Program.

The Program will be commensurate with the public perception of risk and the level of public interest in the Wheeler River Operation.

3.4.11 Human Performance Management Program

The *Human Performance Management Program* outlines and describes processes and frameworks for verifying and upholding active workforce participation, regulatory compliance, and continual improvement while creating a workforce culture of support.

Management of human factors within this Program includes, but is not limited to:

- Employee performance and evaluation;
- Discipline processes;
- Fitness for duty;
- Staffing complement;
- Absenteeism; and
- Administration of time-off.

4 Do

4.1 Risk Management

Risks and hazards are identified and managed through the application of controls which reduce the risk of real and potential harm to acceptable levels. Controls are applied using a graded approach which aligns the level of control with the level of risk (safety significance and complexity of work).

The level of risk is quantified using a risk matrix to assign values of likelihood and consequence to determine the risk ranking before and after assignment of controls. Controls serve to reduce the risk ranking to an acceptable level.

Controls are categorized in order of most to least preferred from:

- Elimination;
- Substitution;
- Engineering;
- Administrative; and
- Personal protective equipment.

The risk registry is reviewed at regular intervals to evaluate the risk ranking and the effectiveness of controls.

Processes associated with documenting risks and controls are further described in the *Risk Management* procedure.

4.2 Work Control

Planned and approved work is assigned to trained, competent workers and is completed using approved processes, resources, methods, and controlled documents (e.g., plans, procedures, work instructions and forms). Workers use materials, software, and tools that conform to and were acquired in accordance with management system requirements.

4.3 Change Management

Change from established processes, components, structures, systems, requirements, or organizational structure is managed in a systematic manner following the change management process. The change management process includes identifying the change and providing the reason for the change. Subject matter experts then review the justification, the plan to accomplish the change, and if needed, identify controls for any risks created. Changes are approved and assessed for associated regulatory requirements prior to implementation. Following implementation, the change is reviewed to verify that it is effective and does not create any unforeseen risk.

Change is managed to protect workers, the environment, and property, and to ensure that regulatory requirements are met.

Processes associated with managing change are described in the procedure *Change Management*.

4.4 Document Management

Documents generated for, or as a result of, licensed activities or to support the management system are identified, assigned a unique designation, and controlled in a systematic manner. Controlled documents include, but are not limited to:

- Licenses;
- Policies;
- Programs;
- Plans;
- Procedures;
- Work instructions;
- Forms; and
- Other instructional information.

Documents are controlled to verify current versions are properly presented, accurate, adequate, secure, accessible where and when needed, and confirm obsolete versions are archived. Controlled documents are approved and posted for accessibility. The creation of documents follows a process that includes authoring, reviewing, and approving prior to addition of the document as a controlled document. A database of the documents identified as part of the management system is maintained.

Processes associated with document management are described in the procedure *Document Management*.

4.5 Records Management

Records generated as a result of licensed activities or management system requirements are controlled and protected so that the records are, and remain, readable, complete, and identifiable. Records are traceable to the work activity or item associated with the record. Managed records are retrieved as needed during the specified retention period. Records relevant to licensed activities are made available to regulators as required.

A database of records identified as important to the management system is maintained.

Records are managed in accordance with the processes described in the procedure *Records Management*.

4.6 Communication Management

Communication processes confirm that the appropriate information is shared with appropriate recipients in a timely manner. This information is shared with internal and external stakeholders as required with consideration of confidentiality, business, and regulatory concerns. Incoming and outgoing communication with real or potential impact on licensing, business, and regulatory issues is managed, and a record of the communication is maintained following the records management process.

Workers are made aware of the relevance and importance of their work as it relates to objectives established for the Operation.

Communication with the public and the indigenous communities is managed as outlined in the *Public and Indigenous Information Program*, as well as the procedure *Communications.*

4.6.1 Regulatory Reporting

Regulatory reporting is a specialized communication between the Operation and regulatory bodies. This communication is largely prescribed by regulation. Regulatory communication is a crucial aspect of compliance with licensing requirements.

Processes associated with regulatory reporting are described in the procedures *Communication*, and *Regulatory Reporting*.

4.7 Non-Conformance Reporting and Management

Non-conformances include identified incidents, near misses, and opportunities for improvement. Non-Conformances are identified, documented, and classified so that action is taken to address the problem, eliminate the same or similar incident causes, or address the opportunity for improvement.

Workers and visitors are required to immediately report non-conformances to a supervisor. Non-conformances may result in unwanted outcomes, including, but not limited to, injury, illness, radiation exposure, unplanned discharge to the environment, damage to assets or infrastructure, disruption to work, failure to comply with a regulatory requirement, or a security breach.

When a near-miss, non-conformance, or deviation from the management system, legal or other requirement is identified and if safe to do so, the situation is controlled to the extent possible and reported to a supervisor or management representative. Data collection, and preliminary investigative details are collected and followed by investigation, if needed, to determine the cause and develop the appropriate preventive or corrective actions. Preventive and corrective actions are evaluated to ensure effectiveness in addressing causes of the incident prior to closing an incident report.

A record of each incident is initiated as soon as practicable and updated with relevant information throughout the incident management process. In addition, data from incident records is used for trend analysis to support continual improvement. Records of the incident and associated actions are maintained as described in the procedure *Records Management*.

Regulatory requirements for reporting specific types of incidents to regulatory bodies are managed through the regulatory reporting process as described in the procedure *Communication*.

Processes related to non-conformance reporting and management are described in the Non-Conformance Procedure. Processes related to non-conformance investigations are described in the work instruction *Investigation*.

4.8 Construction, Commissioning, and Turnover

The processes for control of construction and commissioning of structures, systems, and components are established and described in the *Facilities and Equipment Management Program*. Construction and commissioning outputs are controlled to confirm design requirements are met.

The turnover of structures, systems, components, and supporting documentation to the Operations phase is controlled following processes described in the *Facility and Equipment Management Program*.

4.9 Contractor Management

Management system processes apply to contractors working for the Operation on licensed activities. Contracted services are controlled using the graded approach to align with the risk and complexity of the tasks being performed.

The processes associated with contractor management are described in the *Facility and Equipment Management Program* and the *Contractor Management Plan*.

4.10 Supply Chain

The supply chain process applies to procurement of materials and services required for safe, reliable production, support, and management functions.

The processes and controls for the procurement of goods and services and supply chain management are described in the *Facility and Equipment Management Program* and the *Supply Chain Management Plan*.

The processes associated with supplier audits are described in the procedure *Audits* and *External Audits*.

4.11 Training and Competence

Training processes are implemented to provide workers with the required training to support safe and efficient completion of assigned work. Training records are maintained in accordance with the *Records Management Procedure.*

Training processes follow the SAT standards and use the analysis, design, development, implementation, and evaluation (ADDIE) model.

Processes associated with training activities are outlined in the *Training Management Program.*

4.12 Design Control

Initial design control occurs in the early stages of project development including site selection, and is addressed through feasibility studies, environmental assessments, licensing, and permitting processes.

Subsequently, processes are followed to establish design inputs, define requirements, and carry out design. The creation and maintenance of design documents used during construction, commissioning, operation, and decommissioning are managed in accordance with the *Facility and Equipment Management Program* and the *Engineering Design Control Plan*.

5 Check

5.1 Monitoring and Measurement

Monitoring and measurement of the management system processes are conducted on a continuous basis to verify the processes are implemented, operating efficiently and in accordance with requirements and objectives.

Monitoring and measurement processes serve to assess the effectiveness of the management system and identify areas that may benefit from change or improvement.

Monitoring and measurement testing activities and outputs are of value to management and regulatory bodies to verify that processes are operating effectively and to the expected standard, particularly as it may impact safety of workers and protection of the environment.

Monitoring of structures, systems, and components includes performance monitoring, periodic testing, inspection, calibration, and verification. Monitoring and measurement activities specific to construction, commissioning, procurement, maintenance, and contractor management are described in the *Facility and Equipment Management Program*, *Supply Chain Management Plan,* and *Contractor Management Plan*. Other Programs include specific monitoring and measurement activities, for example, radiation monitoring and environmental monitoring are described in the *Radiation Protection Program* and *Environmental Management Program* respectively.

Key performance indicators may be developed for monitoring and measurement of critical indicators, particularly, but not limited to, areas such as safety of workers, environmental protection, high-risk activities, and regulatory interest.

Processes associated with monitoring and measurement are described in the procedure *Monitoring and Measurement*.

5.2 Inspections

Inspections are conducted by internal and external groups to assess conformance to management system requirements and compliance to legal and other requirements.

External inspections include regulatory inspections conducted on behalf of regulatory agencies to assess activities for level of compliance. Other external inspections may be initiated by customers, associations of which the Operation is a member, and potentially international agencies.

Internal workplace inspections are conducted to assess compliance with regulatory requirements and conformance to management system requirements. Inspection schedules, plans, and findings are recorded. Inspection findings are recorded in the incident reporting system and investigated and addressed accordingly following the corrective actions process.

Processes associated with inspections are described in the procedure *Inspections*.

5.3 Audits

Audits are used to monitor and verify conformance to management system requirements, effectiveness of the management system, and compliance to legal and other requirements, as well as identify opportunities for improvement.

Audits may be initiated:

- Internally to provide an independent assessment on behalf of management to confirm the management system process meets requirements and is effective; or
- Externally on behalf of regulators, customers, registrars for recognized organizations, or groups to verify compliance to requirements.

Auditors are provided access to the work site, the work, documents, and records.

Internal audits are planned and conducted following a documented audit plan, which includes the schedule and scope of audits to be conducted. Audit plan considerations include, but are not limited to, regulatory requirements, management system requirements, and risks associated with licensed activities.

Audits are conducted by auditors independent of processes being audited and follow the audit process and protocols as described in the procedure *Audits* and *External Audits*.

Internal audits may be conducted by specialists within the organization or may be contracted following the supply chain process. External audits may be conducted by auditors representing customers, regulators, or other associations to which the Operation chooses to belong.

Regarding supply chain processes, the Operation conducts audits of suppliers to confirm the initial and ongoing acceptability of suppliers' management systems. If supplier audits are conducted by a third party, the Operation audit process owner is responsible to verify audit results are acceptable, and the process conforms to the procedure *Audits* and *External Audits*.

Workers are required to cooperate with auditors during the audit process.

Audit findings are recorded in the incident reporting system and addressed accordingly through the corrective action process. The responsible party initiates the corrective action process to resolve identified deficiencies or address opportunities for improvement.

Processes and protocols associated with audits are described in the procedure *Audits* and *External Audits.*

5.4 Self-assessment

Workers conduct self-assessments to confirm that approved processes are followed, and their work meets established requirements.

Management is responsible for conducting self-assessments to identify opportunities for improvement and confirm that the work meets management system requirements.

Processes associated with self-assessment and management review are described in the procedure *Self-assessment and Management Review*.

5.5 Management Review

At regular intervals, management reviews management system operations to determine its continuing suitability, adequacy, effectiveness, and alignment with Operation objectives.

Management reviews include, but are not limited to, monitoring and measurement results, change management processes, incident reports and trends, opportunities for improvement, customer and supplier interactions, resources, and risk management activities.

The review is documented, and outputs include, but are not limited to, identified opportunities for improvement, change recommendations, and resources adjustments.

Processes associated with self-assessment and management review are described in the procedure *Self-assessment and Management Review*.

6 Act

6.1 Preventive and Corrective Action

Preventive and corrective actions are determined based on the outcomes of reporting, analyzing, and investigation of incidents, near misses, and opportunities for improvement.

Corrective and preventive actions are taken to:

- Prevent injuries and illness to workers, contractors, and visitors;
- Protect the environment;
- Prevent and mitigate damage to equipment and property; and
- Achieve efficient process and optimize its costs.

Processes associated with preventive and corrective actions are described in the procedure *Preventative and Corrective Action.*

6.2 Use of Experience

Experience gained from activities at the Operation or from outside sources is documented and reviewed by Operation subject matter experts to determine whether there is value in applying this experience to prevent a problem or improve efficiency of a process. If it is determined the application of the experience is of value, action is taken to initiate the improvement.

Experiences that are not considered confidential or sensitive are made available to others.

Processes associated with use of experience actions are described in the procedure *Use of Experience and Continual Improvement*.

6.3 Continual Improvement

Ongoing efforts are made to seek opportunities to improve the suitability, adequacy, and effectiveness of the management system. This effort includes, but is not limited to consideration of:

- Trend analysis of incidents and identified causes;
- Audit, and inspection findings;
- Changes in the business environment;
- Benchmarking the performance and experience of comparable operations; and
- Periodic assessments against the planned outcomes and objectives.

Results of this evaluation and analysis indicate needs and opportunities for improvements that are addressed through the continual improvement process. If it is determined an improvement action is to be initiated, the change management process is used to implement the change in a systematic and controlled manner.

Processes associated with continual improvement are described in the procedure *Use of Experience and Continual Improvement*.

Outputs from the Act elements form inputs to the Plan elements of the Plan-Do-Check-Act cycle to systematically address recommendations and improve the operation of the management system.

6 References

6.1 Internal

Document Name
Audits (procedure)
Change Management (procedure)
Communication (procedure)
Contractor Management Plan
Document Management (procedure)
Emergency Preparedness and Response Program
Engineering Design Control Plan
Environment, Health, Safety, and Sustainability (EHSS) Policy
Environmental Management Program
External Audits (procedure)
Facilities and Equipment Management Program
Fire Protection Program
Health and Safety Management Program
Incident and Deviation Management (procedure)
Incident and Deviation Management (procedure)
Inspections (procedure)
Investigation (procedure)
Legal and Other Requirements (procedure)
Monitoring and Measurement (procedure)
Objectives and Targets (procedure)
Preventative and Corrective Action (procedure)
Process Identification (procedure)
Public and Indigenous Information Program
Radiation Protection Program
Radiation Protection Program
Records Management (procedure)
Regulatory Reporting (procedure)
Risk Management (procedure)
Risk Matrix (procedure)

Document Name
Risk Registry (Form)
Security Management Program
Self-assessment and Management Review (procedure)
Supply Chain Management Plan
Training and Performance Management Program
Use of Experience and Continual Improvement

6.2 External

6.2.1 Federal

Canadian Nuclear Safety Commission (CNSC). REGDOC-2.2.1, Management Systems

CSA 286-12 Management system requirements for nuclear facilities

General Nuclear Safety and Control Regulations

Nuclear Safety and Control Act

6.2.2 Provincial

The Saskatchewan Employment Act