Denison Mines Corp.
Wheeler River Operation

Environmental Management Program

Document #9

Version 1

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Approval for Use

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Version 1	15-Sept-2023	For CNSC Review

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1 Introduction

The *Environmental Management Program* (the Program) is one of twelve Program documents that comprise the Management System for the Wheeler River Operation (the Operation). The *Environmental 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 *Environmental Management Program* is organized according to the 'Plan-Do-Check-Act' iterative process to incorporate continual improvement in all stages of the Program.

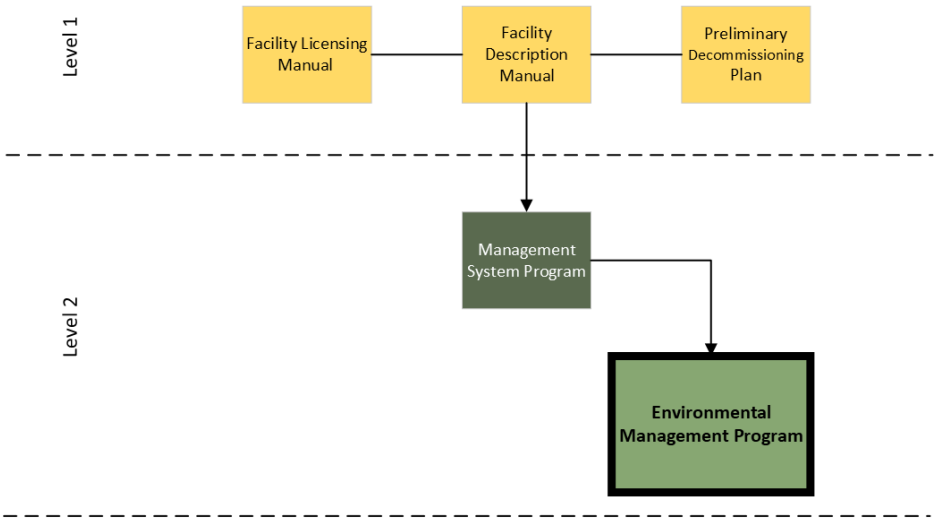

Figure 1: Program shown within Document Framework for the Wheeler River Operation

1.1 Purpose

The purpose of the Program is to describe and document Denison's framework for environmental protection in a systematic and effective process which promotes improved environmental performance.

The Program uses 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 Wheeler River Operation with the environment.

1.2 Scope

The *Environmental Management Program* is used to integrate Denison's environmental protection measures into a documented, managed, and auditable process, and encompasses:

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

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

Denison's commitment to environmental protection is communicated in its corporate Environment, Health, Safety & Sustainability Policy, applicable to all its facilities. The *Environmental Management Program* is based on the principles outlined in that policy, and can be found in the *Management System Program* as well as at the following website:

https://denisonmines.com/about-us/corporate-governance/corporate-policies/

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 2.9.1 *Environmental Principles, Assessments and Protection Measures*, and REGDOC 2.9.2 *Controlling Releases to the Environment.*

Additionally, the Program meets provincial requirements from the Environmental Management and Protection (Saskatchewan Environmental Code Adoption) Regulations under the *Environmental Management and Protection Act* and the Regulations stemming from it.

The Program was created in accordance with ISO 14001:2015, *Environmental Management Systems – Requirements with Guidance for Use*.

1.5 Terminology

A list of common terms applicable to this Program and the *Management System Program* is available in the *Wheeler River Project Glossary*.

1.5.1 Definitions

Term	Definition
ALARA	A principle of radiation protection that holds that exposures to radiation are kept as low as reasonably achievable, social, and economic factors taken into account. Section 4 of the *Radiation Protection Regulations* stipulates licensee requirements with respect to ALARA. (CNSC REGDOC 3.6)
Constituent of potential concern	Nuclear or hazardous substance or physical stressor that could be released to the environment as a result of a project that may change one or more of the environmental components (modified from CNSC REGDOC 3.6)
Effluent	A waterborne release of a hazardous or nuclear substance to the environment. (CNSC REGDOC 3.6)
Emission	An airborne release of a hazardous or nuclear substance to the environment. An emission may include point sources, fugitive emissions or area sources (CNSC REGDOC 3.6)
Environment	The components of the Earth: • land, water and air, including all layers of the atmosphere

	• all organic and inorganic matter and living organisms • the interacting natural systems that include the above components (CNSC REGDOC 3.6)
Environmental effect	Any change to the environment, whether adverse or beneficial, wholly or partly resulting from a licensed activity or facility – see REGDOC 3.6 for fulsome definition.
Environmental aspect	Element of an organization's activities or products or services that interact or can interact with the environment (ISO 14001)
Pollution prevention	To avoid or minimize the creation of pollutants and waste and reduce the overall risk to the environment or to human health.

1.5.2 Acronyms and Abbreviations

Acronym or Abbreviation	Term
ALARA	As low as reasonably achievable
COPC	Constituent of potential concern
ECOP	Environmental Code of Practice
ISR	In situ recovery
MS	management system
SAT	systematic approach to training

2 Plan

2.1 Risk Management

Risk management includes identifying Operation-related environmental aspects, including the significant environmental aspects, supported by the results of the environmental assessment and environmental risk assessment.

2.1.1 Environmental Aspects

Environmental aspects are defined as activities or processes that interact with or can interact with the environment. A significant environmental aspect is one that may have one or more significant environmental impact(s).

Some examples of environmental aspects include:

- Emissions to air, surface water, groundwater
- Wildlife habitat disturbance, fragmentation, or removal
- Energy consumption and efficiency

Environmental aspect identification was part of the Wheeler River Project EA process, where interactions of project activities with the environment were identified, assessment of effects was completed, and significance was determined. Environmental aspects may be adverse or positive. The significant environmental aspects will build upon the conclusions from the EA process. As well, the environmental risk assessment (ERA) that was conducted as part of the EA process is used as a primary source to determine significant environmental aspects.

Environmental aspects are identified according to Denison Procedure, *Identifying Environmental Aspects* The procedure outlines the process for identifying environmental aspects, assessing the risks and opportunities associated with each, determining significance based on severity, frequency, and duration, and communicating internally and externally. All significant environmental aspects are logged and tracked through a risk register as identified in the *Management System Program*.

2.1.2 Environmental Assessment

An environmental assessment is a planning and decision-making tool used to assess the potential effects of the Operation in a careful and precautionary manner, including appropriate engagement with Indigenous communities and communities of interest, so that mitigation can be designed and applied to support of the approval of the Operation by the appropriate regulators. The environmental assessment also outlines a follow up program to verify the accuracy of the findings and effectiveness of any mitigation measures.

The environmental assessment for the Wheeler River – Phoenix ISR Mining Operation is documented in the *Wheeler River Project Environmental Impact Statement*. The environmental assessment includes assessment of the baseline conditions as well as the future, Construction, Operation Decommissioning and Post Decommissioning conditions.

2.1.3 Environmental Risk Assessment

To support the environmental assessment process, an environmental risk assessment (ERA) was prepared, compliant with CNSC REGDOC 2.9.1, *Environmental Protection: Environmental Principles, Assessments and Protection Measures* and Canadian Standards Association (CSA) N288.6:22, *Environmental Risk Assessments at Nuclear Facilities and Uranium Mines and Mills*. The ERA included a human health risk assessment and an ecological risk assessment. The objectives of the ERA for the Operation were to:

- Predict and assess the risk to representative human and ecological receptors resulting from exposure to radiological and non-radiological substances expected to be released throughout project phases;
- Inform decision-making in the EIS; and
- Inform prioritization of monitoring and mitigation measures.

The ERA serves as the basis for identification of the needs for the control and monitoring of releases to the environment and the needs for environmental monitoring, which are managed through the *Environmental Management Program*.

The ERA focused on constituents of potential concern (COPCs) that exceeded screening values in air and water based on predicted atmospheric releases and aqueous releases (e.g., treated effluent and groundwater solute releases) from the Operation.

An environmental transport and pathways model (IMPACT) was used to evaluate the effects of COPCs on the local environment including human and ecological receptors. The selection of human and ecological receptors was informed by Indigenous and Local Knowledge.

The ERA estimated dose and risk to human and ecological receptors during all project phases and in the future centuries (i.e., beyond a Project timeline of 38 years).

The HHRA focused on members of the public potentially exposed to low levels of airborne or waterborne constituents. The selected human health receptor groups included a camp worker, seasonal resident, recreational fisher/hunter, and fisher/trapper. In the future centuries a hypothetical permanent resident was assessed at the former mine site instead of a camp worker.

The ecological receptors selected for the ERA were a subset of valued components identified for the EA so that the results from the ERA could be used in the effects assessments for fish, vegetation, wildlife, human health, Indigenous land and resource use, and other land and resource uses.

Recommended monitoring is supported through the *Environmental Management Program* with the goal of reducing uncertainty over time through an iterative process. Monitoring would focus on collecting data to verify ERA model predictions as well as providing data to improve model predictions as the project progresses.

The ERA will follow the periodic review process outlined in CSA N288.6 which stipulates that the ERA should be reviewed at a minimum every five years or more frequently if major facility changes are proposed or transition to a new phase in the lifecycle is planned that would trigger a periodic review. Periodic review of the ERA would consider any changes to site conditions, the physical facility/processes, operational experience, environmental monitoring data collected, identified environmental issues, scientific advances, changes in regulatory requirements, and incorporation of Indigenous and Local Knowledge.

2.1.4 Risk Register

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

2.2 Objectives and Targets

The Environment Department sets environmental objectives and targets consistent with Denison's Environment, Health, Safety & Sustainability Policy, taking into account significant environmental aspects and associated legal and other compliance obligations, including environmental principles required per CNSC Regulatory Standard REGDOC-2.9.1, Environmental Protection: Policies, Programs and Procedures.

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.

Environmental objectives and targets specific to the *Environmental Management Program* are developed according to Denison Procedure, *Environmental Objectives and Targets*. The process for setting overall objectives and targets is outlined in the *Management System Program* and supporting procedure.

2.3 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 environmental objectives and targets.

2.3.1 Roles and Responsibilities

This subsection outlines the specific roles and responsibilities within the Program, including Environmental Manager, and Environmental Coordinator, and other workers with various levels of responsibility.

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>Environmental Manager</u>

- Responsibility for compliance with environmental monitoring requirements arising from legislation, regulations, licences, permits and other legal requirements;
- Ensures operation of facilities in accordance with CNSC licence and Saskatchewan Ministry of Environment approvals;

- Ensures integrity of the program including implementation of quality assurance and quality control measures; and
- Monitors environmental performance.

Environmental Coordinator

- Oversees implementation of *Environmental Management Program*;
- Coordinates monitoring activities under the *Environmental Management Program*;
- Coordinates environmental risk assessments;
- Properly handles and interprets environmental information;
- Maintains records; and
- Follows-up on incidents and trends.

Environmental Health and Safety Technician

- Executes procedure/work instruction level duties for the Operation;
- Takes the lead in scheduling monitoring activities under the *Environmental Management Program* to ensure requirements are met;
- Conducts environmental sampling to meet *Environmental Management Program* requirements in accordance with both the federal and provincial operating licence/approval requirements;
- Prepares and submits reports;
- Assists in maintaining comprehensive master files of environmental data and operational records; and
- Assists in the compilation and evaluation of data when requested, including preparation and submission of internal and regulatory reports.

2.3.2 Facilities and Equipment

Facilities and equipment to support the effective implementation of the Program and its related practices are provided to Program staff and applicable workers.

Examples of facilities and equipment used and maintained as part of the Program include:

- Effluent and emissions monitoring equipment such as particulate matter samplers, radon monitors, water samplers, pH meters, etc.;
- Environmental monitoring equipment such as sampling devices for soil, water, air, sediment or other media, meteorological stations;
- Laboratory equipment for analyzing samples, such as spectrometers or chromatographs;
- Health and safety equipment such as personal protective equipment;
- Pollution control systems such as scrubbers, dust collectors, ventilation systems; and
- Environmental control measures such as secondary containment, stormwater management infrastructure, holding ponds.

Environmental monitoring equipment is operated, calibrated, and maintained by qualified staff according to manufacturer instructions and specifications.

2.3.3 Legal and Other

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

- Federal and provincial acts and regulations;
- Environmental assessment commitments and follow-up monitoring; 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 environmental compliance obligations are monitored and evaluated to determine if updates to the *Environmental Management Program* and its supporting Plans, Procedures, and Work Instructions are required.

2.4 Training and Competence

A systematic approach to training (SAT) is used to educate, train, and qualify workers and contractors to perform assigned work. Training requirements are monitored to verify workers have necessary training when needed to maintain competency and work safely. Program-specific training requirements are defined in the *Training Management Program*.

Records of training activities and competencies will be maintained as outlined in the *Training Management Program*.

2.4.1 Program-Specific Training

Training specific to the *Environmental Management Program* will be defined for Denison employees and contractors according to the SAT process. Denison will ensure that workers identified under the *Environmental Management Program* have prior training or relevant work experience in a related field. As well, ongoing professional development will be defined, appropriate to their role.

Denison will also develop and deliver training and awareness programs to enhance environmental knowledge, and skills. To ensure awareness and understanding, Denison will regularly communicate environmental information, policies, and procedures to relevant staff.

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 some records generated specific to the Program may include:

- Effluent and emissions monitoring data;
- Environmental monitoring data (e.g., air, water, soil, sediment, fish, vegetation, country foods, etc.);

- Groundwater monitoring data;
- Equipment maintenance, calibration, and inspection records
- Environmental monitoring reports;
- Environmental incidents, response actions, and lessons learned;

Denison uses an environmental database to schedule and track environmental sampling activities.

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

2.6 Communication

Communication both with internal and external stakeholders is a critical element of the Program to promote a safe work culture that fosters environmental protection. Relevant environmental information such as environmental performance data and improvement initiatives will be shared.

Communication principles and processes are further outlined in the *Management System Program,* and communication with indigenous communities, local communities, and the public is managed as outlined in the *Public and Indigenous Information Program.*

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:

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

2.8 Emergency Preparedness and Response

Denison is committed to establishing, implementing, and maintaining a process to prepare for and respond to potential emergency situations.

Consistent with CNSC REGDOC 2.9.1, environmental emergency preparedness and response is within the scope of the *Environmental Management Program*. Denison's overall process for emergency management is outlined in the *Emergency Management Program*.

Denison will identify potential environmental emergencies (i.e., spills) and establish emergency response procedures to prevent or mitigate the effects of accidental releases to the environment. Additionally, Denison will make environmental monitoring instrumentation during emergencies available and accessible, including maintenance of spill response equipment, and an inventory of such

equipment, and provision of adequate field emergency spill response. Further details on planning for and responding to environmental emergencies can be found in the *Spill Management Plan*.

3 Do

3.1 Supporting Plans

The *Environmental Management Program* is supported by the following Plans:

- *Effluent and Emissions Monitoring Plan*
- *Environmental Monitoring Plan*
- *Groundwater Protection and Monitoring Plan*
- *Environmental Code of Practice*
- *Biodiversity Management Plan*
- *Spill Management Plan*

A high-level summary of each Plan is provided in the following subsections.

3.1.1 Effluent and Emissions Monitoring Plan

The *Effluent and Emissions Monitoring Plan* is intended to meet the expectations of the CNSC with respect to effluent and emissions monitoring as described in CNSC REGDOC 2.9.2 and to follow guidance from the Canadian Standards Association (CSA) on effluent and emissions monitoring as described in CSA N288.5.

The general objectives of the *Effluent and Emissions Monitoring Plan* (based on CSA N288.5-22) are:

- To provide information to demonstrate compliance with all regulatory requirements regarding effluents and emissions;
- To provide information on effluents and emissions to support assessment of potential risks to people and the environment as identified in the ERA;
- To provide information on effluents and emissions to support assessment of radiation dose to people and the environment; and
- To provide early warning of any unusual or unforeseen releases of nuclear or hazardous substances to the environment.

Effluent and emissions monitoring is expected to be risk-based, focusing on both nuclear and hazardous substances released from a licensed facility, and providing a characterization of released constituents of potential concern (COPCs) sufficient to support the ongoing risk assessment, and to demonstrate adequate control of releases for environmental protection.

The *Effluent and Emissions Monitoring Plan* includes the following components:

- Project Background
- Need for Effluent and Emissions Monitoring
- Design of Effluent and Emissions Monitoring
- Program Performance and Data Acceptance Criteria
- Sampling and Analysis Procedures
- Interpretation of Monitoring Data

- Quality Assurance and Quality Control
- Reporting, Review and Audit
- Staff Qualifications and Training

3.1.2 Environmental Monitoring Plan

The *Environmental Monitoring Plan* is intended to meet the expectations of the CNSC with respect to environmental monitoring as described in Regulatory Document 2.9.1 and to follow guidance from the Canadian Standards Association (CSA) on environmental monitoring as described in CSA N288.4:19.

The objectives of the *Environmental Monitoring Plan* are:

a) To assist in collecting the data required
   I. to assess the level of risk to human health and safety, and the potential biological effects in the environment from the contaminants and physical stressors of concern arising from the facility; and
   II. to provide data to verify the predictions made by the ERA, refine the models used in the ERA, or reduce the uncertainty in the predictions made by the ERA;
b) To demonstrate compliance with any applicable limits on the concentration and/or intensity of contaminants and physical stressors in the environment or their effect on the environment; and
c) To check, independently of effluent monitoring, on the effectiveness of containment and effluent control, and provide public assurance of the effectiveness of containment and effluent control.

Environmental monitoring is expected to be risk-based, focusing on both nuclear and hazardous substances released from a licensed facility, and providing a characterization of media concentrations of COPCs sufficient to support the ongoing risk assessment, and to demonstrate that public dose levels meet regulatory requirements.

The *Environmental Monitoring Plan* includes the following components:

- Project Background
- Need for Environmental Monitoring
- Design of Environmental Monitoring
- Program Performance and Data Acceptance Criteria
- Sampling and Analysis Procedures
- Interpretation of Monitoring Data
- Quality Assurance and Quality Control
- Reporting, Review and Audit
- Staff Qualifications and Training

3.1.3 Groundwater Protection and Monitoring Plan

The Operation has the potential to either directly, through the ISR process, or indirectly influence groundwater quality and/or quantity near the operations. Groundwater conditions will be monitored prior to mining operations, as well as during operations, decommissioning, and post-decommissioning.

The Groundwater Protection and Monitoring Plan is informed by the understanding of existing groundwater conditions at the Site, the reactive transport modelling of groundwater constituents associated with the decommissioned mining zone, and the commitments made within the Geology and Hydrogeology chapters of the EIS for the Wheeler River Project.

The requirements of the *Groundwater Protection and Monitoring Plan* are to be able to demonstrate, at each stage:

- That excursions are not occurring and, if excursions do occur, to provide early warning/a timely signal of when and where they are occurring, such that appropriate further evaluation and actions can be undertaken;
- That commitments made in the EA have been achieved; and
- Protection of groundwater end use/receiving environment.

Groundwater protection and monitoring is a component of overall environmental protection under REGDOC -2.9.1 version 1.2. Groundwater Monitoring Programs are mandatory under the CSA N288.7-23 standard "*Groundwater protection and monitoring programs for nuclear facilities and uranium mines and mills*".

The Groundwater Protection and Monitoring Plan is a "living document" that will be adapted and updated as required to achieve the level of environmental protection committed to in the EIS, over the life of the Operation. The scope of the groundwater monitoring program includes monitoring of groundwater flow and quality conditions associated with surface facilities and subsurface mining activities over the life of the Operation.

3.1.4 Environmental Code of Practice

The *Environmental Code of Practice* (ECOP) will include action levels and administrative levels for selected nuclear and hazardous substances at the final point of release of treated mine effluent from the Industrial Wastewater Treatment Plant to the environment. Exceedances of these levels will trigger appropriate responses to a potential loss of control. The nuclear and hazardous substances will be consistent with those identified in the *Effluent and Emissions Monitoring Plan*.

The ECOP will be developed following the guidance in CSA N288.8-17, *Establishing and implementing action levels for releases to the environment from nuclear facilities*.

3.1.5 Biodiversity Management Plan

The *Biodiversity Management Plan* establishes the requirements for managing biodiversity throughout the Operation, in accordance with regulatory compliance obligations. The *Biodiversity Management Plan* covers the terrestrial and aquatic environments, and includes the following components:

- Project Background

- Context to Developing the Plan (corporate policies, standards and guidance, regulatory framework, other guidance)
- Roles and Responsibilities
- Indigenous and Local Knowledge
- Existing Conditions
- Monitoring Objectives and Key Performance Indicators
- Monitoring and Evaluation

3.1.6 Spill Management Plan

The *Spill Management Plan establishes* the requirements to manage environmental spills, including spills to land, air, and water, as defined in applicable legislation, regulations, and standards which include the following:

- *Canadian Environmental Protection Act* (CEPA)
- *Environmental Emergency Regulations* (SOR/2019-51)
- *The Environmental Management and Protection Act*
- *The Environmental Management and Protection (Saskatchewan Environmental Code Adoption) Regulations* (Chapter E-10.22 Reg 2)
- *Discharge and Discovery Reporting Standard, Saskatchewan Environmental Code*
- Element 8.2 of ISO 14001:2015

The *Spill Management Plan* addresses environmental spill management which interacts closely with the *Emergency Preparedness and Response Program*.

3.2 Operational Controls

Denison has established operational controls to eliminate or control the environmental risks identified for the Operation. The implementation of control measures is based on the potential risks the Operation may have on the environment.

Consistent with the hierarchy of controls as outlined in the *Management System Program*, these controls can include elimination, substitution, engineering, and administrative controls, and personal protective equipment. In the context of environmental protection, the focus is on engineering controls for risk mitigation as elimination or substitution of the hazard are not feasible given the nature of the Operation.

Engineering controls include effluent and emission control measures based on best industry practice, incorporating the application of best available technology economically achievable (BATEA), ALARA, process optimization, continuous improvement and the results of the ERA for the Operation.

Denison has internal processes and procedures to effectively manage the effluent and emission control systems through application of an equipment preventative maintenance program and ensuring all monitoring equipment is appropriately calibrated.

Additionally, pollution prevention strategies are considered such as utilization of the BATEA assessment process for key technologies such as the effluent treatment plant, to minimize or eliminate the release of nuclear and hazardous substances into the environment, as well as consideration of engineered barriers and secondary containment. Pollution prevention measures are regularly monitored and evaluated to ensure their effectiveness.

Adaptive management is utilized to identify and implement new control measures or modify existing control measures over the life of the Operation. Adaptive management is a planned and systematic process to continuously improve environmental management practices by learning from measured outcomes. It integrates design, management, and monitoring to learn from experience and apply knowledge gained to inform subsequent actions.

3.3 Contractor Management

Denison may wish to use contractors to perform environmental monitoring on the Operation site, or to implement elements of the *Environmental Management Program*.

Any contractor performing environmental work on the Operation site is governed by the Program requirements or by the contractor's equivalent programs, plans, and procedures.

The process for verifying contractors adhere to environmental requirements, and the process for reviewing and accepting a contractor's environmental management program, is 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 environmental, health, safety, incidents (including near misses), and deviations.

Incidents or deviations that result in exceedances of federally or provincially legislated environmental reporting thresholds will be reported to the relevant regulating agencies within legislated reporting timelines, and in accordance with CNSC REGDOC 3.1.2, *Reporting Requirements, Volume I: Non-Power reactor Class I Facilities and Uranium Mines and Mills*. Reporting requirements for exceedances of environmental action and administrative levels will follow requirements outlined in the *Environmental Code of Practice*.

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

4 Check

4.1 Monitoring and Measurement

Environmental performance is monitored and measured against established environmental objectives and targets (identified in Section 2.2). Denison will monitor, measure, analyze, and evaluate its environmental performance based on a defined process outlined in the *Management System Program*.

Monitoring and measurement activities specific to this Program may include:

- Effluent and emissions monitoring (under the Effluent and Emissions Plan);
- Environmental monitoring (under the Environmental Monitoring Plan);
- Groundwater monitoring (under the Groundwater Protection and Monitoring Plan);
- Biodiversity monitoring (under the Biodiversity Management Plan); and
- Compliance monitoring to verify compliance with environmental regulations and permits.

All monitoring and measurement activities must also meet defined quality assurance and quality control requirements outlined within relevant Plans as part of this Program.

The results of monitoring and measurement activities are communicated internally and externally (see Section 4.4) and documented as part of the *Records Management* process outlined in the *Management System Program.*

4.2 Inspections and Audits

Denison will conduct internal audits of the *Environmental 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*.

4.3 Management Review

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

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

- Any needs 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*.

4.4 Reporting

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

Examples of routine regulatory reporting of the Program results include but are not limited to:

- Annual environmental monitoring reports to the CNSC;
- Five-year Environmental Performance Reports to Saskatchewan Ministry of Environment;
- Metal and Diamond Mining Effluent Regulations regulatory reporting; and
- Annual National Pollutant Release Inventory reports.

Reporting, disclosure, and communication to the public and Indigenous and local communities is discussed in more detail in the *Public and Indigenous Information Program.*

5 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 environmental incidents, near-misses, and deviations from the *Environmental 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 environmental performance. The continual improvement process for this Program follows the overall continual improvement process outlined in the *Management System Program* 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 environmental management, opportunities for continual improvement may be identified through review of techniques, processes, and procedures for ensuring effective effluent and emission control.

6 References

6.1 Internal

Document Name
Management System Program
Effluent and Emissions Monitoring Plan
Environmental Monitoring Plan
Groundwater Protection and Monitoring Plan
Environmental Code of Practice
Biodiversity Management Plan
Spill Management Plan

6.2 External

Canadian Nuclear Safety Commission (CNSC). 2020. Environmental Protection. Environmental Principles, Assessments and Protection Measures. REGDOC-2.9.1, Version 1.2.

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