

INTRODUCTION

Achieving ISO 55001:2014 certification exemplifies NCPL's commitment to our stakeholders, community, and customers, by continuously evaluating and improving our Asset Management processes to ensure we exceed the highest standards in the world.

Certification offers NCPL a single, clear framework to achieve our policy objectives and to realize maximum value from our Assets throughout their lifecycle.

Asset Management does not focus on the value of the Asset itself, but on the value that the Asset can provide to NCPL, with the ultimate objective of enhancing NCPL's business return on investment.

NCPL's Asset Management Policy Objectives and our Strategic Asset Management Plan (SAMP) are contained in the IMS Company Manual.

1.0 Purpose

The Asset Management System (AMS) procedures that follow, form a universal framework for managing the use of physical assets throughout their lifecycle, such as mobile or fixed operating plant structures and equipment at the NCPL port facility.

They incorporate considerations and decision making for management of assets into the ports day-to-day operations and into NCPL's strategic planning.

2.0 Responsibility

The Department Managers are responsible for ensuring the procedures that follow are effectively implemented and maintained.

3.0 Procedures

The procedural elements of the Asset Management System are as follows:

NCPL's' Asset Management System (AMS) Objectives

The Key objectives and benefits that NCPL obtains from implementing the Asset Management standard include the following:

- Bring value for the organization and all its stakeholders from the use of its assets.
- Promoting alignment across the organization to achieve organizational goals.
- Promote Managerial Leadership with commitment, along with an empowerment culture.
- Achieve Asset Policy Objectives.
- Improve efficiency, reduce costs, and minimize negative impacts on equipment failures and down time.
- Provide Asset Life Cycle controls for the planning, acquisition, utilization, maintenance, and disposal of NCPL's assets.

Factors that Impact NCPL's Asset Management System

The context and scope of NCPL's AMS and the Internal and External issues that impact our ability to meet our objectives are defined in the Company Manual section 4.0 and relevant procedures and includes:

- Understanding the organization and its context.
- Understanding the needs and expectations of stakeholders.
- Determining the scope of the system.
- The Asset Management System.

NCPL is committed to defining our position in the marketplace and understanding how relevant factors arising from legal, political, economic, social, and technological issues influence our strategic direction and our organizational context for realizing maximum value from our assets.

All external and internal issues that affect both the achievement of the organizational goals and the Asset Management System are identified in our Company Manual and Procedures.

Stakeholders

NCPL has identified all internal and external stakeholders who impact the Asset Management System and has documented their needs, expectations, and method of communications in the Company Manual and Procedures.

Reference: Stakeholder and interested parties' matrix

Scope

The scope of the AMS is laid down in the Company Manual and the Strategic Asset Management Plan (SAMP).

The AMS framework process plan is shown in **Figure 2: Asset Management Process Chart**

NCPL's Leadership and Commitment

NCPL is committed to, and is proactively involved in, implementing, and maintaining our organization's Asset Management System as defined in the Company Manual section 5.0 and relevant procedures and includes:

- Leadership and commitment.
- AMS Policy.
- Organizational roles, responsibilities, and authorities.
- NCPL ensures that all necessary resources, responsibilities, and accountabilities are allocated for the continual improvement of the AMS.

NCPL's top management has ensured that the asset management policy, the SAMP, and Asset Management Objectives are established and are compatible with the organizational objectives.

The Asset Management Policy and Objectives are contained in the Company Manual.

NCPL's Organizational Roles, Responsibilities & Authorities

- The NCPL management structure, organigrams and the lines of communication and authority are contained in the Company Manual.

Planning to Achieve our AMS Objectives

The planning requirements of the AMS are defined in the Company Manual section 6.0 and relevant procedures and include:

- Actions to address risks and opportunities.
- Asset Management Objectives and Planning to achieve them.
- Determination of legal requirements and other requirements.

Planning: Actions to Address Risks & Opportunities

NCPL has incorporated risk-based thinking into our organization's culture. This includes the establishment of risk management procedures and processes to ensure the effective risk and opportunity management principles are undertaken throughout the lifecycle of our operations, processes, Asset management system, products, services, and activities by:

- Providing sufficient resources to carry out risk and opportunity management activities.
- Assigning responsibilities and authorities for risk and opportunity management activities.
- Reviewing information and results from audits and risk and opportunity management activities.

NCPL has considered the risks and opportunities arising from our AMS and its processes, our operations and supply chain and takes action to ensure that our AMS meets its intended outcomes, reduces undesired effects, and achieves continual improvement.

The NCPL risk management framework is contained in the Company Manual and Procedures.

Planning: To achieve Asset Management Objectives:

The AMS Policy Objectives and SAMP are set out in the Company Manual

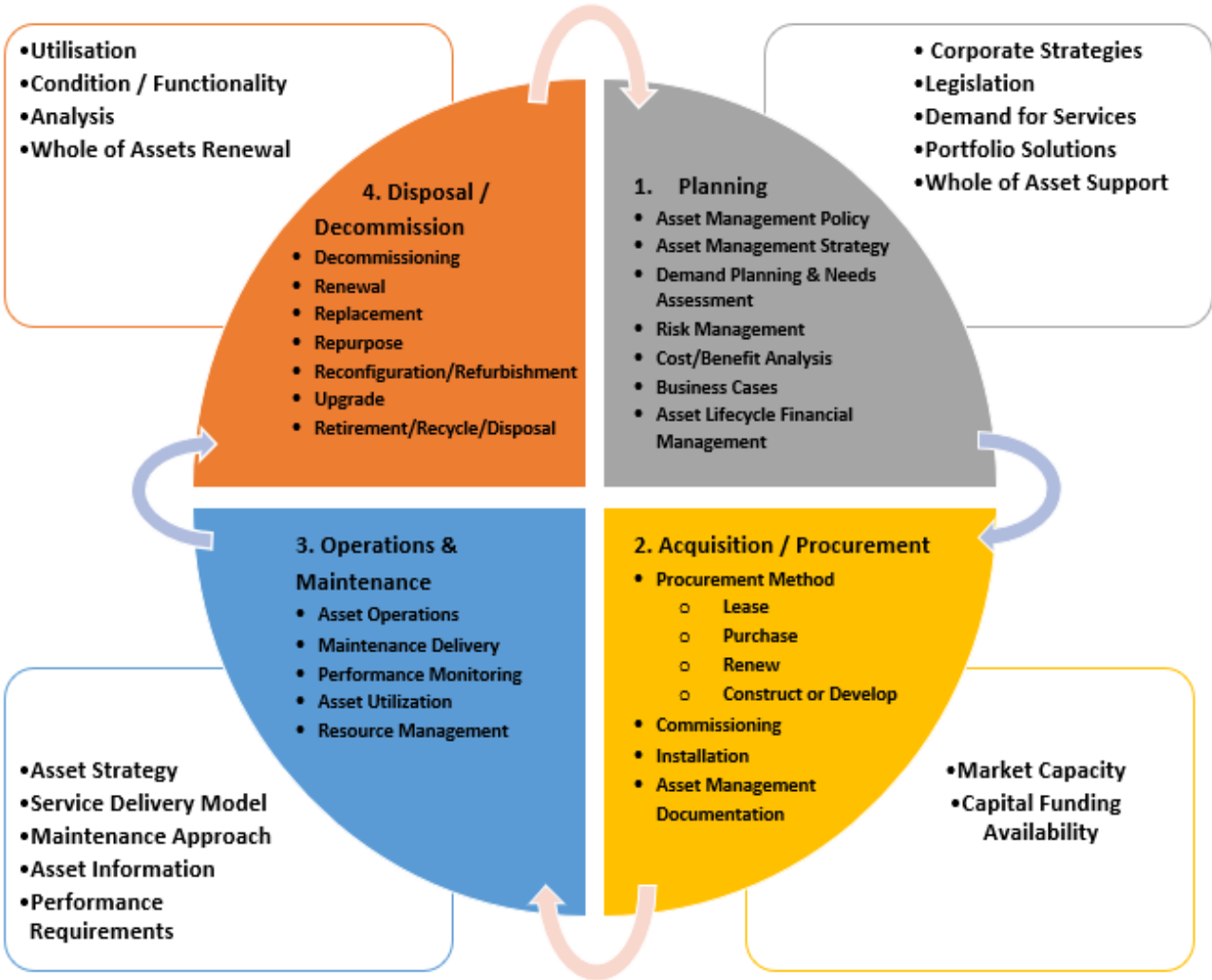
NCPL has ensured that the Asset Management Plan(s) take(s) into account relevant requirements coming from outside the asset management system.

Specific Asset Management Plans identify risk mitigation and preventions, internal and external resources, special tools, or equipment needed for maintenance and criticality status of assets, over the whole lifecycle.

The chart that follows illustrates the Asset Management Lifecycle from planning, acquisition, operation, and maintenance and final disposal/decommission.

Reference: Asset Management Plans for specific equipment

Asset Lifecycle Planning and Management



Asset Lifecycle Planning and Management Chart.

NCPL's Supporting Role

NCPL's supporting role for the requirements of the AMS are defined in the Company Manual section 7.0 and relevant procedures and include:

- The provision of resources.
- Competency needs.
- Awareness training.
- Communications, both internal and external.
- Information requirements.
- Documented information.

Support: Resources

NCPL is responsible for identifying resources needed for planning, providing, and maintaining the infrastructure and the resources needed to achieve product and process conformance, including buildings, workspace, and associated utilities; process equipment (hardware and software); and supporting services (such as internal transportation, material handling systems, and communications systems).

- The resource requirements for the implementation, management, control, and continual improvement of our Asset Management System, are defined in our SAMP, operational procedures, and work instructions.

Competence:

NCPL identifies emerging competency needs during Management Reviews. Emergent competency needs are converted into job descriptions for the type and number of positions that need to be filled through internal or external recruitment. To ensure the competence of our workers and contractors, job descriptions have been prepared and identify the qualifications, experience, interactions, and responsibilities that are required for each position.

Awareness Training:

Awareness of the requirements of the Asset Management System is made available to both internal and external workers as contained in the Company Manual and Procedures.

Communication:

NCPL understands that defined channels of communications are required for the success of the AMS and clear procedures are in place to identify the process of communication, both internally and externally as contained in the Company Manual.

Documented information is not restricted to hard copy and appears in electronic, format, email and web based, in accordance with the table below.

Reference: Communication Plan with Internal/External Stakeholders/Others.

Information requirements

All information requirements related to the relevant Assets, Asset Management, the Asset Management System, and the achievement of the organizational objectives, such as risks, roles, processes, stakeholders, decision making, have been identified and addressed:

- a) NCPL has taken into consideration the following requirements to support its Asset Management System:
 - The significance of the identified risks.
 - The roles and responsibilities for Asset Management.
 - The asset management processes, procedures and activities.
 - The exchange of information with its stakeholders, including service providers.
 - The impact of quality, availability, and management of information on organizational decision making.
- b) NCPL has determined:
 - The attribute requirements of identified information.
 - The quality requirements of identified information.

- How and when information is to be collected, analyzed, and evaluated.
- NCPL has specified, implemented, and maintained processes for managing its information.
- NCPL has determined the requirements for alignment of financial and non-financial terminology relevant to Asset Management throughout the organization.
- NCPL has ensured that there is consistency and traceability between the financial and technical data and other relevant non-financial data, to the extent required to meet its legal and regulatory requirements while considering its stakeholders' requirements and organizational objectives.

Control of Documented Information

NCPL procedures for document and data control are aimed at preventing the risk of unintended use of obsolete documentation information and are contained in the Company Manual section 7.14 and relevant procedures.

Operational Planning and Control

Requirements for Operational Planning and Control are defined in the Company Manual section 8.0 and relevant procedures and includes:

- Planning and control.
- Management of change.
- Outsourcing.

Planning and Controls:

AMS procedures and controls are implemented by all applicable teams and departments using the appropriate supporting SAMP and individual Asset Management Plans.

NCPL ensures that all operational activities, including product and service outputs, meet the applicable safety requirements and regulatory standards as contained in the Company Manual section 8.0 and relevant procedures.

The operation and maintenance of plant and equipment that have the potential to impact safety performance, as defined through risk analysis, is maintained, inspected, and tested to ensure it meets design descriptions and specifications. Documentation for critical processes, plant, and equipment is retained and made available.

Management of Change

- It is recognized that accidents can occur when processes deviate from defined established control measures.
- This may include changes in competent supervision and workers or the introduction of new materials, machinery, and processes.
- The organization has defined and implemented a process which considers internal and external change throughout the business.
- Changes are risk assessed with consideration of the impacts on NCPL's business made prior to any change implementation.
- The change process is a documented system to acknowledge issue and receipt of the notification to ensure it is communicated and understood.

Reference: Change Management Process Procedure.

Outsourcing:

- NCPL has put controls in place to ensure those purchased goods and outsourced services do not introduce hazards and expose workers to harm including contractors.

The organization has determined:

- The processes and activities that are to be outsourced (including the scope and boundaries of the outsourced processes and activities and their interfaces with the organization's own processes and activities).
- The responsibilities and authorities within the organization for managing the outsourced processes and activities.
- The processes and scope for the sharing of knowledge and information between the organization and its contracted service provider(s).
- When outsourcing any activities, the organization ensures that:
 - The outsourced resources meet the requirements of 7.2, 7.3 and 7.6.
 - The performance of the outsourced activities is monitored in accordance with 9.1.

Performance Evaluation

Requirements for performance evaluation are defined in the Company Manual section 9.0 and relevant procedures and includes:

- Monitoring, measurement, analysis, and performance evaluation.
- Evaluation of Compliance.
- Internal Audit.
- Management Review.

NCPL has established, implemented, and maintained a process for monitoring, measuring and evaluation of the performance of the AMS to improve its effectiveness, as contained in the Company Manual section 9.0

Internal Audit

An internal audit is a systematic method to check organizational processes and requirements of the IMS as well as those detailed in the AMS 55001 standard.

The internal audit ensures that the processes in place are effective, and the procedures are being adhered to.

The NCPL internal audit program is contained in the Company Manual and Procedures.

Management Review

- The aim of the review is for Top Management to assess the performance of the Asset Management System.
- To ensure it has been effective and suitable for the needs of the business, ultimately maintaining Asset value for NCPL.
- On completion of the Management Review Meeting, NCPL top managers, and support decide what is needed to continuously improve the AMS and satisfy the standard.
- NCPL records the meeting minutes within documented information.
- This information is communicated to the relevant interested parties and where applicable worker representatives.

The NCPL Management Review program is contained in the Company Manual and Procedures.

Improvement

Requirements for the continual Improvement of the AMS are defined in the Company manual section 10.0 and relevant procedures and includes:

- Nonconformity and Corrective Actions.
- Preventive Action.
- Continual Improvement.

Nonconformity and Preventive, Corrective Action

NCPL has implemented procedures for reacting, controlling, correcting, and preventing nonconformities, as contained in the Company Manual section 10 and the relevant Procedures.

The procedure defines the controls for reporting and establishing the root-cause of all types of accident, incident or near miss that may occur on our premises and the implementation of preventive and corrective actions. Any staff member who is involved in an accident, near miss or any dangerous incident must report the occurrence.

Preventive Action

NCPL has established processes to proactively identify potential failures in asset performance and evaluated the need for preventive actions as contained in the Company Manual and relevant Procedures.

Continual Improvement

NCPL has established processes to continually improve the suitability, adequacy, and effectiveness of its asset management system as contained in the Company Manual and Procedures.

Figure 2: Asset Management Process Chart

