Asset Modification Procedure

AREA OF APPLICABILITY

All Airports and Corporate Office

DIVISION
Strategy and Sustainability

(Infrastructure Asset Management)

Next Revision Date:

November 2025

Control Disclosure:
Public

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1. Scope

This procedure provides for the registration of engineering asset modifications and for reporting on the status of engineering asset modifications. It defines a standardized process for all Infrastructure Asset Management (IAM) and Maintenance Engineering (ME) operational assets that shall be followed for the review, classification, approval, and implementation of an Engineering Change. This procedure shall apply to internal asset modification requests and to any relevant stakeholder that requires Asset Modification external of Airports Company South Africa SOC Limited.

2. Objective

The main objectives of the Asset Modification Procedure are to ensure the effective management of all IAM and ME changes to increase plant / service reliability and availability / capacity over the full lifecycle of an asset and to reduce downtime / business risk with minimal interruption to operations/ services. Furthermore, the Asset Modification Procedure shall safeguard the health and safety of Company employees, the Airports Community and Airport users.

The Asset Modification Process shall ensure a consistent approach is used for the classification and prioritisation of all engineering asset modifications, keep records, and update relevant documentation.

3. Definitions and Abbreviations

3.1 Definitions

Approve
The functional responsible person determines if the document is fit for purpose and approves the document content and therefore takes responsibility and accountability for the document content

Asset/Plant /Infrastructure
Machinery, property, buildings, vehicles and other items and related systems that have a distinct and quantifiable business function or service.

Authorize
The document authorizer authorizes the release and application of the document and is accountable for document implementation

Asset Modification
Any change (Temporary or Permanent), deletion or addition to systems, structures, equipment or components within the engineering environment

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Asset Modification Administrator
A person(s) that would be nominated by the Asset Owner to manage and programme Asset Modifications

Asset Modification Category
The categorization of modifications is dependent on the level to which it affects safety, the environment, reliability, availability and costs

Asset Modification Committee
A group of people that advise the Modification Committee Chair in the assessment, prioritization and scheduling of changes. The group is made up of representatives from the different functional areas within IAM, business representatives.

Asset Modification History
Describes the information relating to changes made to a configuration item during its life. Change history consists of all those change records that apply to the equipment/asset

Asset Modification Implementer
Is the person(s) that would perform the change in the live environment or the change to the Configuration Item. The Change Implementer would usually be an IAM Subject Matter Expert specific to the proposed change or an external party outside of ACSA.

Asset Modification Management
The process for controlling the changes during the Equipment/Asset Life Cycle. The primary objective of Change Management is to enable beneficial changes to be made with minimal interruption to operations/ services. Asset Modifications Management ensures all engineering changes are correctly prepared, motivated, reviewed, approved, controlled and recorded.

Asset Modification Record
A record containing details of a change/modification. A change record is created for every Request for Change that is received, even those that are subsequently rejected.

Asset Modification Request
A formal proposal for a change to be made. This includes details of the proposed change

Asset Modification Requestor
An individual proposing a Request for change / modification. This can be someone from a business unit, IAM Department, or a 3rd party vendor (contractor) or a stakeholder

Asset Owner
The person accountable for the maintenance and upkeep of the asset.

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Asset Modification Window

A regular agreed time when changes/modifications may be implemented with minimal impact on operations / services.

Asset Modification Owner

A person who has ultimate responsibility for the system that is subjected to the proposed change. This typically will be the discipline manager like Mechanical, Civil, Electrical and Building and Facilities Maintenance

Asset Modification Prioritization

Selection criteria as part of the modification process that will guide the Asset Owner and the Asset Modifications Committee/s on the priority of the modifications into different Asset Modifications Categories

Baseline

A baseline is a consistent set of plant configuration information or documentation at an established point in time. This would have been formally reviewed and agreed upon and that would henceforth serve as the basis for further development that can only be changed through formal change control procedures

Central Asset Modification Committee Chair

A person occupying the position of Group Manager Maintenance Engineering or nominated person

Emergency Asset Modifications

These asset modifications are not permanent, and they are normally affected for a brief period. Typically, an unplanned modification of a piece of equipment as a result of an emergency which needs to be repaired immediately to maintain operational serviceability or environmental safety or preserve the quality of service

Engineering Change

A change required to enhance the efficiency / function / fit / performance / safety of an engineering asset

Like for like Asset Modification

Replacement of a piece of equipment by another with identical characteristics and function but not necessary from same manufacturer

Local Asset Modification Committee Chair

A person occupying the position of Senior Manager Maintenance Engineering or nominated person

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Major Asset Modification
An Asset Modification Category where the change is expected to have an impact on service quality and operations

Minor Asset Modification
An Asset Modification Category where the change is not expected to have an impact on operations and quality of service

Out of Normal
An out of normal is a formal notice to Operating Personnel to communicate a condition or situation that exists or may arise on any system which poses a risk to people, plant, production or material.eg NOTAM

Permanent Asset Modification
A change/modification to an item's fit, form, or function that will be implemented without a pre-determined time limit/expiration i.e., being designed or planned to stand or continue indefinitely

Subject Matter Expert
A person occupying the position of Chief Engineer.

Technical Documents
Documents containing equipment and product-related data and information that are used and stored. They cover data and information pertaining to equipment, product definition and specification, design, manufacturing, quality assurance, product liability, product presentation; description of features, functions and interfaces; safe and correct use; service and repair of a technical product as well as its safe disposal.

Temporary Asset Modification
A change required to enable the asset to function safely until a permanent fix is found and implemented

User
A stakeholder who uses the maintenance & Engineering service on a day-to-day basis

3.2 Abbreviations

Abbreviation	Description
CoE	Centre of Excellence
IAM	Infrastructure Asset Management
RASCI	Responsible for Submission, Accountable for decision, Supporting, Consulted before final decision is made, Informed

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4. Procedure general

4.1 Internal Asset Modification

The request for asset modification shall be initiated by completing the [Engineering Asset Modification Request Form – M&E 088](). The following change categories shall be utilized and followed as a guide:

4.2 Major Asset Modification

The characteristics of major modifications are that they are large projects / maintenance scope that have high risk, high cost and high impact. They require deep risk and impact analysis and buy-in from multiple sources. These include potential airport showstoppers such as runways, pavements, baggage handling systems, jet fuel storage and reticulation, incoming power supply switching systems, instrument landing systems, airfield ground lighting and its related equipment. Major asset modifications are approved by the Central Asset Modification Committee.

4.3 Minor Asset Modification

Minor modifications are low to medium risk and impact. These do not require a multi-disciplinary team for their execution. They are approved by the Local Asset Modification Committee.

4.4 Emergency Asset Modification

Emergency modifications are short notice, high priority, high risk and high impact. They require immediate implementation and are linked to an incident / compliance. They are implemented with limited testing and training. They are approved by Senior Manager: Maintenance Engineering for the Cluster, the change may be processed and implemented, and the documentation and the ratification of the approvals processed retrospectively

4.5 Temporary Asset Modification

These asset modifications are not permanent, and they are normally affected for a short period. Typically implemented to keep the operation running subsequent to a failure of the normal system. They are approved by the Asset Modification Requester's Manager, the change may be processed and implemented, and the documentation and the ratification of the approvals processed retrospectively if the modification is to be permanent.

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4.6 The RASCI Matrix

The RASCI table below applies to all internal Asset Modifications Requests when they serve at the Asset Modifications Committees.

No	Description	Asset Modification Administrator	Modification Requestor	Subject Matter Expert	Stakeholder	Modification/Change Implementor	Asset Modification Owner	Asset Modification committee	Asset Modification committee Chair
1	Identify the change		R	C	C	C	I		
2	Initiate change		R	C	I	C	C		
2.1	Complete change request form		R		I	C	C		
2.2	Register the change	R				C			
2.3	Route for assessment		R	C	C		I		
3	Asses the change								
3.1	Assessment of the change		R	R		R	R		
3.2	Recommend/support the change			R	R	I	R		
4	Approval								
4.1	Arrange and Coordinate Asset modification Committee meeting	R	I	I	I	I	I	C	A
4.2	Review the change						R	R	
4.3	Recommend approval						R	R	
4.4	Approve					I	R	R	A
5	Implementation		I			R	A	I	I
6	Closeout and review		R			R	A	I	I
7	Document control & Archives	R	R			R	A	I	I

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4.7 External Stakeholders Asset Modification

Asset Modifications requested by external stakeholders shall follow the <u>Asset and Infrastructure Modification Guidance Notes for Changes Initiated by Existing Tenant, Guideline – M&E 089</u>. The request for asset modification shall be initiated by completing the <u>Engineering Asset Modification Request Form – M&E 088</u>. These guidelines take care to manage the process end-to-end including where leases require to be altered. The steps followed are shown below. The accountable party must complete each step first to move on to the next.

4.7.1 Submission of a motivation with an Asset Modification Form (By Duly appointed Representative)
4.7.2 Drafting the Development Agreement
4.7.3 Concept Design
4.7.4 Discipline Specific Preliminary Designs
4.7.5 Discipline Specific Detailed Designs
4.7.6 Submission for Drawing Approval to Local Authority
4.7.7 Submissions for Occupancy Certificate
4.7.8 Procurement & Construction
4.7.9 Commissioning & Handover
4.7.10   Beneficial Declaration

4.8 Asset Modification Management Process

The Asset Modification Management process consist of Originating/Initiating, Assessment, Approval, Implementing and Close out stages. These stages shall follow in this order with one being a prerequisite of another. i.e., implementation of the change may not be done if the Asset Modification Request Form is not completed and the Change approved.

4.8.1 Classification of the Asset Modifications

The Asset Modification Requestor is responsible for completing the Asset Modification Request Form and classification of the intended modification as per the defined Asset Modification Categories

4.8.2 Asset Modification Request

Asset Modification Requests are preceded by an analysis which necessitates the implementation of such a request. This analysis may include a Root Cause Analysis, Pareto Analysis, a new client, an existing tenant requirement, a need for continuous improvement or compliance, etc.

The step-by-step guide of the requirements above are articulated in the Level three Perform Asset Modification Process.

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4.8.3 Asset Modification Registration

The Asset Modification Requestor submits the Asset Modification Form to the Asset Modification Administrator for registration.

4.8.4 Asset Modification Request, Assessment and Review

The Asset Modification Request is circulated by the Asset Modification Requestor for assessment and discussion among Engineering Subject Matter Experts and applicable Stakeholders. The scope of assessment may include scope of the modification, justification for the modification, risk management and compliance to legal or relevant standards. After this assessment, the Asset Modification Requestor submits the assessed Asset Modification Request documentation to the Asset Modification Owner for review and recommendation for approval to the Local Asset Modification Committee.

4.8.5 Review and Approval

The Asset Modification Owner reviews the Asset Modification Request for adherence to overall Asset Modification procedure requirements and evaluates the Asset Modification Request readiness to serve at the Asset Modification Committee/s.

4.8.6 Approval by the Asset Modification Committee

The Modification Requestor supported by the Technical Subject Matter expert/s (internal or external) presents the Asset Modification Request to the Local Asset Modification Committee Local. Major Asset Modification Requests are referred to the Central Asset Modification Committee once the Modification Category is determined. The committee approves if the Asset Modification Request meets all the Asset Modification Procedure requirements and meets sound engineering / financial / safety / health / programming principles.

4.8.7 Implementation

Once the Modification is approved by the relevant Asset Modification Committee the Asset Modification implementer can proceed with implementation of the change by following the correct planning and scheduling procedures.

4.8.8 Close out

The Modification Close out takes place once the implementation is complete and signed off. Documentation is filed in a central information repository by the Asset Modification Requestor, Implementor and Administrator.

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5. Process for Monitoring

The effective implementation and monitoring of this procedure shall be done through relevant committees and reviews. Self-assessment by Maintenance Engineering (level 1) and Operational Governance (level 2) shall be conducted to determine compliance, implementation and effectiveness of this procedure. In order to ensure compliance to statutory requirements, audits on annual basis or per audit plan shall be conducted to determine compliance status.

MONITORING CONTROLS	PURPOSE	RESPONSIBLE	FREQUENCY
COE Oversight Compliance Matrix	Oversight compliance	Group Manager: ME (as delegated)	Real Time
Internal Audits	Determine the effectiveness of the procedure and test the outcome of the procedure.	Internal Audit	Annually
Operations Management Manco	Measure adequacy and implementation of the procedure	Operations Management	Planned Interval

Note: This procedure shall be reviewed in three (3) years circle and if there is a need to review the procedure before three (3) years circle laps due to any circumstances being legal requirements, changes in the businesses, the need to reflect current practices or activities, the procedure shall be unlocked for review accordingly.

Disclaimer: In instances where document links are not accessible, directly access the documents on the Policy Management Document Store on the Airports Company South Africa SOC Limited intranet.

6. Accountabilities and Responsibilities

6.1 Accountability

The overall accountability for the development of this procedure lies with the Group Executive: Strategy and Sustainability with the support of the Group Manager: Maintenance and Engineering. However, in the absence the designated person the acting person shall assume responsibility as per delegation of authority. The overall accountability for the effective implementation and adherence of this procedure lies with the Group Executive: Operations Management with the support of the Senior Manager: Maintenance Engineering. However, in the absence the designated person the acting person shall assume responsibility as per delegation of authority.

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Authorities	Group Manager: Maintenance Engineering	Regional General Manager	Group Executive: Strategy and Sustainability	Group Executive: Operations Management	Senior Site Manager: Maintenance Engineering	Employees (Procedure role players)
Has overall accountability for development of this procedure	*Responsible*	-	*Accountable*	-	*Consulted*	*Consulted*
Has overall responsibility for implementation and adherence of this procedure	-	*Responsible*	-	*Accountable*	*Responsible*	*Responsible*
Consulted at the time of an exception and adherence of this procedure.	*Consulted*	*Consulted*	*Consulted*	*Consulted*	*Accountable*	*Responsible*
Has overall responsibility for adherence, implementation and performance of a given task.	-	-	-	-	*Accountable*	*Responsible*
Has responsibility for approval and authorization	*Responsible*	*Informed*	*Accountable*	*Accountable*	*Informed*	-
Communicate the procedure to all impacted stakeholders or employees.	*Accountable*	*Responsible*	-	-	*Responsible*	*Informed*

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6.2 Roles and Responsibilities

Approved Contractor

- Not applicable

Senior Manager: Site Maintenance Engineering

- Ensure that all Maintenance Engineering personnel, have been trained to complete the relevant tasks which they are required to fulfil their job functions.
- Adequately train personnel on the use of the operating equipment, tools or any other elements associated with the task required to perform their duties

7. Reporting of Non-Conformance

Any deviation from this procedure shall be identified and registered with corrective and preventative measures for continual improvement in accordance with Reporting of Non-Conformance Procedure Documents - Z001 001M.

8. Related Policy Documents

Document Control Procedure – Z001 006M
Record Keeping Requirements Procedure - Z001 008M

9. Related Legislation and Standard

Airfield Standard Operating Procedures Manual (Latest issue)
Occupational Health & Safety Act, No. 85 of 1993
Quality Management System ISO 9001

10. Change Control and Verification Procedure

This procedure shall only be changed with the authorization of the Group Executive: Strategy & Sustainability and in accordance with Change Control and Verification Procedure - Z001 003M.

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11. Records

Record Name	Storage Location	Record Number	Responsible Person	Retention Time
Engineering Asset Modification Request Form	Maintenance Engineering Department	ME - 088	Manager: IMC/ Manager: Maintenance or designated Maintenance Engineering personnel	Five (5) Years
Asset and Infrastructure Modification Guidance Notes for Changes Initiated by Existing Tenant	Maintenance Engineering Department	ME - 089	Manager: IMC/ Manager: Maintenance or designated Maintenance Engineering personnel	Five (5) Years
Asset Modification Procedure	Master in Policy Management Storage Room	D060 020M	Policy Assurance Officer	Five (5) years

12. Revision History

Date last revised	Revision Status	Compiler	Summary of changes
09th November 2022	Version: 1	**Acting Group Manager:** Maintenance Engineering **Name and Surname** Peter Sibande	First Issue

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13. Endorsement (See Master in Policy Management Storage Room)

Activity	Name	Signature	Date
Compiled by	**Acting Group Manager:** Maintenance Engineering **Name and Surname** Peter Sibande	*[signature]*	09 November 2022
Quality Assurance: Department	**Manager:** Policy & Assurance **Name and Surname** Thabana Mahlo	*[signature]*	18 November 2022
Supported by	**Group Manager:** Enterprise Asset Management **Name and Surname** Mohamed Riaaz Essack	*[signature]*	22 November 2022
Approved by	**Group Executive:** Strategy and Sustainability **Name and Surname** Charles Shilowa		

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