KNUST POLICY 0013

Kwame Nkrumah University of Science and Technology, Kumasi

# Maintenance POLICY



# **MAINTENANCE** POLICY



KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI-GHANA QUALITY ASSURANCE AND PLANNING UNIT

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# Forward

The Kwame Nkrumah University of Science and Technology, Kumasi has a mission to advance knowledge in science and technology through creating an environment for undertaking relevant research, quality teaching, entrepreneurship training and community engagement to improve the quality of life. In order to achieve this mission, there is the need to have Maintenance Policy.

The rationale of this policy is to Safeguard the safety in their use of buildings and infrastructure of the University.

The University is therefore, grateful to all those who ensured the initiation, development and approval of this Policy.

**PROFESSOR K. OBIRI-DANSO** VICE-CHANCELLOR

# Acknowledgement

As part of the strategic planning mandate of the Quality Assurance and Planning Unit (QAPU), university policies are initiated and proposed for approval by the Academic Board. The Unit therefore, initiated the Maintenance Policy which was approved by the Academic Board held.

The QAPU is grateful to Mr. Kwadwo Kyeremeh's committee for the draft of this Policy. We are equally indebted to all staff who helped to edit and review it.

Lastly, we wish to appreciate the contribution of all staff of this University who contributed in several ways for the development and approval of this Policy.

#### **PROF. CHRISTIAN AGYARE**

HEAD, QAPU AUGUST, 2018

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# **1.0 INTRODUCTION**

The Kwame Nkrumah University of Science and Technology ( $\kappa$ NUST), owns and operates an extensive portfolio of buildings and infrastructure assets that are utilized to deliver its teaching and research programmes. The utilization of these assets could be categorized into the following groupings:

- Teaching, research and other academic facilities;
- Staff and student accommodation;
- Administrative buildings;
- Ancillary buildings and facilities (hospital, manufacturing, printing, workshop, etc.);
- Road works, bridges and other related services;
- Electricity and water services;
- Landscaping and other horticultural works;
- Recreational and relaxation grounds/parks;
- Sewerage and waste disposal; and
- All other facilities and physical structures owned by the University within the main Kumasi campus and beyond.

The quality of research and teaching programmes is closely related to the state of maintenance of the University's infrastructure facilities. Policies that upgrade teaching space, develop student facilities, increase the functionality of research infrastructure and improve the presentation of the external campus environment are critical components of the sustenance of students, staff and visitors.

# 2.0 AIMS & OJECTIVES

## 2.1 AIM OF POLICY

The aim of the maintenance policy is to provide guidelines for actions that would ensure that the assets are efficiently and effectively maintained to support the University's strategic objectives.

### 2.2 **OBJECTIVES OF POLICY**

The specific objectives of this policy are as follows:

- To provide a high quality and accessible service that is userfriendly;
- To achieve value for money;
- To establish performance measures and time scales for the delivery of services with the resources available;
- To facilities quality service delivery through appropriate maintenance practices; and
- To ensure that high priority is given to safeguarding the safety and security of students, staff, tenants, members of the public, employees and agents, in their occupation and use of buildings and infrastructure of the University.

# 3.0 POLICY GUIDELINES AND ACTION

## 3.1 EQUALITY AND DIVERSITY

KNUST shall provide fair and equal treatment for all its stakeholders, including staff, students and tenants and shall not discriminate against any on the grounds of race, colour, ethnic or national origin, language, religion, belief, age, gender, marital status, family circumstances, employment status, physical ability or mental health. The University shall positively endeavour to achieve fair outcomes for all.

In providing repair and maintenance services, KNUST shall adopt a flexible and innovative approach in its response to issues of diversity and physical disability, such as accessibility of facilities by provision of appropriate structure (refer to the Disability policy).

This Maintenance Policy therefore seeks to systematically comply with the requirements of the disability law and in consonance with KNUST's Disability Policy. KNUST recognizes its role in valuing and promoting diversity, fairness, social justice and equality of opportunity by adopting and promoting fair policies and procedures, as provided in the Disability Policy.

## 3.2 HEALTH AND SAFETY

The provisions of the University Health and Safety Policy shall be applied to all aspects of the implementation of this Policy, particularly in respect of responsibility to:

- Students;
- Employees; and
- Service provider(s)

## 3.3 Authorization of Maintenance Works and Service

The procurement of all maintenance works, including associated goods and services, shall be authorized by the Director of Works and Physical Development, hereafter referred to as the Director of Works, irrespective of the scope, size, nature and source of funding of the said maintenance works, goods or services. Maintenance works shall be authorized within a general programme outline approved by the Vice-Chancellor.

No individual, acting on behalf of a Student Hall of Residence, Unit, Section, Department, Faculty or College, or on their own behalf shall commit the University to any maintenance cost without seeking the above approval, through the procedures laid down in this policy. Such services so procured may be denied by the Vice-Chancellor, or charged against that individual who ordered the procurement.

## 3.4 STANDARDS OF MAINTENANCE WORKS/ REPAIR AND REPLACEMENT CYCLES

The standard services shall be in accordance with national specification requirements. The performance measures of service providers shall be based on the standards.

In setting standards for maintenance of campus facilities, inputs from staff, students and users shall be considered. A collaborative effort should result in a set of standards that are likely to suit the majority of the people who use the campus. The colours of paint, types of lighting, finishing to floor, safety measures (burglar proofing), frequency of replacement of fittings, painting cycles and many other characteristics should be comfortable for as many users as possible.

Once an agreement is reached on a set of standards, they should not be changed until the time of the next formal review. The Director of Works shall establish the replacement cycles for various fittings, elements and components.

## 3.5 MAINTENANCE PRIORITIES AND CATEGORIES

A Works Control Centre established at the Maintenance Unit and supervised by the Director of Works, shall receive all work requests. The Works Control Centre shall determine priorities and assign ratings based on information received from the tenant/user.

Priorities shall be allocated depending upon the category that the work requested falls into, as shown in Table 1.

Unanticipated maintenance works shall be handled on a case-by-case basis. Emergency maintenance will receive priority response as outlined in Table 1.

Each priority has a response time, which has been outlined in the foregoing. A response time is the time it takes the Maintenance Unit to first respond to the work requested.

## 3.6 ANNUAL MAINTENANCE PLAN

An Annual Maintenance Plan shall be prepared for each category of facility, thus setting out the priorities for its maintenance. A state/ condition survey to establish the extent of disrepair of all categories of buildings and infrastructure shall be conducted every three (3) years. This shall facilitate the estimation of resources for proper planning and budgeting.

This will lead to a categorization of maintenance works under routine, periodic and emergency maintenance schedules. The Development Office shall submit an annual budget for routine maintenance. In this regard, the various administrators of Student Halls of Residence, Units, Sections, Departments, Faculties or Colleges shall furnish the Development Office with anticipated routine maintenance works for the upcoming year for the preparation of annual routine maintenance budget

### Table 1: List of Priorities of Maintenance Works from 1 (Highest) to 4 (Lowest Ratings) with Associated Categories

#### Priority 1 Response: Within 1 hour (during normal working hours)

Within 2 hours (after normal working hours)

Categories are:

- · Serious safety or environmental hazard/incident
- Serious asset damage resulting in irreplaceable catastrophic loss to teaching and research (e.g. Fire or major leaks including water, gas etc.)
- · Widespread loss of power

#### Animal welfare

The objective of making this priority 1 is to ensure safety and minimize damages.

#### Priority 2 Response: Within 2 working days

Categories are:

- · Low risk safety hazards
- · Replaceable loss to teaching and research
- Malfunction of equipment or appliance

#### Priority 3 Response: Within 5 working days

Categories include:

- · Asset requires maintenance but not urgent
- · Minimal risk to teaching, research and subsistence
- · Low risk safety hazards
- · Replaceable uses to teaching and research

#### Priority 4 Response: within 2 weeks

Categories are:

- Routine maintenance
- Programme work

## 3.7 FUNDING OF MAINTENANCE WORKS

## 3.7.1 Sources of Funds

The maintenance activities described in the Policy shall be funded from:

- Students user fee;
- Income from rent deductions;
- Public Private Partnership arrangements;
- Government support;
- Donations from KNUST's Development Partners, including contractors and alumni; and
- Other internally generated funds (IGF).

In allocation of funds for development from GETFUND, IGF and other sources a minimum percentage shall be set aside for maintenance works, depending upon the maintenance load established.

## 3.8 **Responsibilities of Stakeholders**

## 3.8.1 KNUST

KNUST shall ensure that its obligations to tenants, staff and users in relation to repairs and maintenance, as described in Tenancy Agreements, Byelaws and Statutes are met by the implementation of this Policy. KNUST shall fund the procurement of all maintenance works, goods and services in all building and infrastructure facilities fit for use by tenants, staff and the general public as required by law, regulations and other statutory requirements.

## 3.8.2 Tenant/User

Tenants and users shall meet the following obligations as described in the Tenancy Agreement, including:

- Prompt reporting of any damage to the house or related common parts;
- Ensuring access to service providers to carry out repairs and maintenance works and inspections as required; and
- Taking reasonable care of infrastructure and buildings (including fittings and appliances).

Since KNUST does not insure the contents of a house, tenants are required to do so by insuring personal possessions against loss due to fire, flood, theft, accident etc.

## 3.8.3 Service Providers

All operatives undertaking maintenance works on KNUST properties shall carry identification badges, wear uniforms, and keep the premises secure at all times.

They are also required to make good any damage caused in the course of their activities and remove all waste/debris from the premises.

Service providers shall comply with all relevant health and safety legislation and bye-laws to avoid danger to tenants, visitors and members of the public. They shall also deliver services in line with the service standards set out in the relevant contract documentation.

# 4.0 **EXECUTION OF MAINTENANCE WORKS**

## 4.1 SERVICE PROVISION

The Director of Works shall be responsible for the maintenance of all KNUST's buildings and infrastructure described in this policy, irrespective of the source of funding, location, nature or magnitude.

All users/tenants shall channel all communications and/or grievances before, during and after maintenance works through the Director of Works; failing that the user/tenant shall be held liable for the associated costs and mishaps occasioned by his/her actions

## 4.2 **REPORTING ARRANGEMENTS**

All tenants and users shall have a single point of telephone contact for reporting repairs to the Works Control Centre. Contact details shall be published in a Tenant/users' directory, which shall be regularly updated. All Works Control Centre staff receiving repair reports shall be trained to deal with request efficiently, effectively and courteously and to accurately categorize the repair requested.

A Maintenance Information System (MIS) shall be established with the installation of appropriate equipment and networking to electronically disseminate information concerning maintenance.

## 4.3 PROCUREMENT

The Maintenance Unit shall act as a Service Provider, under the supervision of the Director of Works to provide the repairs and maintenance services described in this Policy. Except where the magnitude and complexity of work demand external Contractors or Consultants, all maintenance works shall be undertaken by the Maintenance Unit. The requirements of the Public Procurement Act shall be adhered to in the engagement of all Contractors, Suppliers and Consultants in providing works, goods and services respectively.

## 4.4 EXAMINATION OF FACILITIES

In order to ensure efficient and effective modernization of the campus, a systematic evaluation of the campus condition of facilities shall be undertaken. This shall involve examining the patterns of uses, the current maintenance practices, and status of the facilities.

The maintenance staff, working with other consultants, shall carry out this audit or condition survey. The results shall be compared with existing maintenance standards to determine where there are deficiencies. There shall be an inventory of all categories of campus facilities once every three (3) years to establish the stock situation for proper planning/budgeting and evaluation of needs.

During maintenance, site supervisors shall be assigned to regularly monitor progress of work to ensure that, inter alia, the service providers/ contractors adhere to the contract conditions and the existing maintenance standards set out in the University's maintenance policy. A site supervisor in this case shall be the representative of the Director of Works and shall be an architect, a quantity surveyor, engineer, clerk of works or any person appointed by the Director of Works to offer (maintenance) supervisory or consultancy services.

## 4.5 ROLE OF SITE SUPERVISORS

The role of site supervisors shall include but not limited to:

- Acting as the representative of the Director of Works on the maintenance project site;
- Ensuring adherence to material specifications and scope of works;
- Advising the Director of Works on the need to vary the scope of works;

- Ensuring prompt delivery of work to avoid possible cost overruns;
- Ensuring that maintenance service providers adhere to the necessary security and safety standards as spelt out in contract documents;
- Ensuring that the final product is in consonance with the KNUST's set maintenance standards;
- Identifying and pointing out discrepancies and/or inadequacies existing between onsite delivery and project contract documents and recommending remedial measures for immediate redress to the Director of Works; and
- Submitting mid-term maintenance project reports and final maintenance project reports.

Architects, Engineers and Quantity Surveyors assigned to maintenance works shall visit works site at least twice a week. Clerk of works, on the other hand, shall visit site at least four times a week.

To aid in quality maintenance, the team of site supervisors, as part of the in-situ project monitoring, shall submit a mid-term maintenance report mid-way through the life of the project as well as a final project report at the end of the maintenance works to the Director of Works. The Project Architect shall be assigned the responsibility of collating and compiling such reports from the team members for onward submission to the Director of Works. Where the project duration is so short that submission of a mid-term report will be impractical, only a final report shall be submitted.

Such reports shall be used, in addition to the post-completion monitoring reports/survey, to inform and enhance future maintenance works as well as aid in future review of the existing maintenance policy.

## 4.6 Post-completion Monitoring

A proportion of repairs and maintenance work shall be inspected after completion and in line with the κNUST's standards of repairs and

relevant contract conditions. The selection of work to be inspected shall be a random sample across all categories/types of repair.

User/customer feedback shall be used by the Director of Works to monitor service delivery and to address weaknesses, improve performance and develop the service to meet user's needs.

User Satisfaction Survey results shall be used to improve performance and develop services to meet user's needs and demands. In this direction, the Director of Works shall liaise with the University Information Technology Services (UITS) to develop an online satisfaction survey system where users could submit their responses online.

Where a problem is identified with the performance of a Service Provider, this shall be dealt with in accordance with the terms of the relevant contract, or accepted good practice.

## 4.7 Adaptations and Chargeable Repairs

KNUST shall operate an Adaptation Policy to meet the needs of tenants whose circumstances require the addition of specialized facilities or equipment in complying with relevant legislation as indicated in the Disability Policy.

Tenants/Users shall not be permitted to make alterations or additions to any facility unless with a written consent of the Direct of Works. Consent may be given where:

- There are unreasonable subsequent maintenance requirements;
- The alterations or improvements will not make it difficult for the property to be re-let, occupied or used;
- Tenants/Users agree that the work is inspected on completion by the Director of Works; and
- Where the proposed additions will not materially alter the architectural character of the facility.

If a tenant or user has made alterations or improvements without obtaining permission, the Director of Works shall charge the tenant

for any work necessary at the end of the tenancy to return the facility to its previous condition.

Unique design elements like roof and wall colours etc., that promote a strong identity and visible presence within the larger community shall be maintained at all times of repair works. Any tenant or user who contravenes this policy shall be surcharged with the cost of bringing the structure back to its state of common identity.

Any chargeable repairs necessary to bring the facility back to a letable standard shall be invoked in accordance with Arrears and Debts Policy to be established by the Estate Management Committee of the University.

Tenants shall be notified at the time of reporting the repair that a charge shall be made and that they will be provided with an indication of the likely cost.

The circumstances in which a tenant shall be charged include:

- Damage caused by negligence of the tenant, a member of their household or visitor within their house or the common parts of the property;
- Damage caused by the tenant, a member of their household or visitor, identified at the end of Tenancy Inspection, resulting in repairs required before the house can be re-let;
- Wilful damage or acts of vandalism caused by a tenant, or a member of their household or a visitor that has not been reported to the police; and
- Making good the house following improvements/alterations carried out by the tenant with or without the Director of Works' approval to an acceptable standard.

# 5.0 REVIEWS

The Estates Management Committee shall periodically review and monitor the implementation of this policy. Its terms of reference shall also include the establishment of standards of maintenance, level of funding and resolution of misunderstanding on issues of maintenance.

#### QUALITY ASSURANCE AND PLANNING UNIT

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