

ASSET MANAGEMENT & QUALITY CONTROL – (PART 1)



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Introduction

Asset management and its associated maintenance activities is recognized as a fundamental driver of the success of any organization. The production capacity of all fixed assets and other facilities is dependent upon the effectiveness of all relevant activities undertaken with consideration to Assets Maintenance, Management and Quality Control with associated costs; a significant component of the total costs of production coupled with Assets Management and Quality Control performance directly influences the capital invested in any income producing plant.



“The strategic importance of assets management requires the establishment of an Asset Management Model that ensures the life of an asset (from acquisition to disposal); if managed efficiently and effectively”.

The model defines the principles, strategies and priorities which underpin the proactive maintenance management activities. It also serves as a framework for defining the development of improvement strategies, and as guidelines for the development of business processes consistent to its maintenance activities.

PURPOSE

The purpose of Asset Maintenance Management within the context of Asanko is to *“ensure a planned performance and integrity of an income producing plant, at the lowest practical life-cycle-cost (LCC)”*.

In the light of this, a proactive maintenance approach can be defined as *“The combination of all technical and administrative functions intended to RETAIN an asset and/or a component, or both, or otherwise to RESTORE it to a state in which it can perform its required function”*.



RATIONALE

Achievement of the Asset Management purpose will contribute to the continuing viability and economic success in the following critical areas:

Safety – maintaining assets and facility conditions with systems that provide a safe place of work, preventing the development of hazardous conditions, correcting damage and deterioration that may lead to the creation of hazards.

Environment - maintaining the integrity of facilities and systems that prevent harm to the environment, thus optimizing the performance and efficiency of emission reduction systems; preventing the failure of facilities intended to control potential environmental hazards; correcting damage and deterioration that may lead to the creation of hazards.

RONA (return on net assets) - managing the performance of equipment and maintenance activities, to achieve the equipment productivity required to meet a Company’s Business Plan. This ensures that facilities are fit for continuous operation at the planned production rate, enabling production targets to

be achieved with the lowest practical level of capital investment and operating expenditure.

Stability - creating and sustaining facility conditions and systems which ensure that operations are not disrupted or disturbed due to failure or malfunction, and reducing the incidence and consequence of unpredicted events.

Predictability - predicting, planning and controlling maintenance activities such that accurate and reliable forecasts of plant performance and costs are created, and ensuring that a Business Plan is developed on the foundation of reliable information.

Operational Life - maintaining facilities in a condition appropriate to the economic achievement of their probable operating life, and ensuring that the economic operating life of facilities are maximized.

APPROACH

Asset management requires that most of their activities are undertaken with a continuous improvement approach. Activities are planned, executed, measured and analyzed, and then actions taken to improve subsequent performance of the activity.

Wherever practical and cost effective, preference shall be given to adopting equipment maintenance strategies that are proactive and planned. The intent shall be to prevent in-service failure of equipment, or to limit the consequences of in-service

failures. The preferred hierarchy of equipment maintenance strategies shall be:

- Design out the failure mechanism.
- Monitor the condition or performance of equipment to detect early signs of deterioration and act to repair before failure occurs.
- Where equipment service life is consistent, repair or replaces equipment at a defined point in its expected service life.
- Implement measures (such as stand-by equipment) to remove or reduce the consequences of failure, or
- Operate equipment to failure.

(End-Part 1-to be continued...)