Assets & The active Life Cycle – Raising the “R”

There is short history about reliability. Some years ago, a maritime operation bought a diesel engine for a new ship. At the same time, in another part of the world, a railway bought this same model engines for a locomotive.

Several years later, the cost of the ship had three times less than the railway.

By the end of investigation, the difference came down to one factor: the shipping operation had made a strategic decision never run them above 90% of design rating and the railway ran it engine at 100% duty.

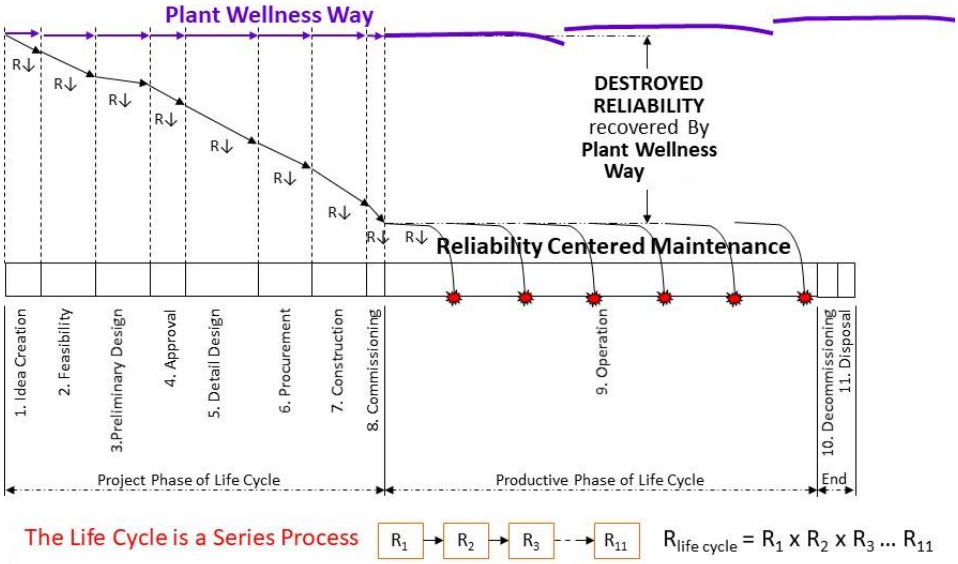
The single decision reduced the shipping company´s maintenance costs by 200%.

The plain truth is “first part fail, and then machines stop”.

It could be a defect built into a part or a bad event that occurred during the machine´s service life.

Each step from the Life cycle Process Chains are complex and needs to be well thought out and analyzed.

A Life Cycle Asset Wellness Curve for World Class Operational Excellence



Feasibility and design: Concept, Requirements, Preliminary Design, Material Selection. Final Design and Documentation.

Manufacture and Construction: Drawings and specs, raw material, Prepare for Manufacture, Manufacture, Assembly, Acceptance Testing and Delivery.

Installation and Commissioning: Drawings and spec, site storage, foundations and structure, equipment installation, site tests, commission and handover.

Operation: Process specs, process controls, operating procedures, equip start up, equipment operation, product manufacture and storage.

Parts Procurement and Storage: Purchase, Receipt into Store, Storage, Care and Upkeep, Requisition and Delivery.

Maintenance: Maintenance specs, maintenance procedures, schedule maintenance, test equipment, hand back, job history.

To get reliability and maintenance excellence, three things ensure success.

1- **Prevent fatigue and degradation**
2- **Control works quality and task accuracy** throughout the life cycle of your equipment parts to protect human knowledge and skills errors introducing defects.
3- Build life cycle asset management, supply chain, operation, maintenance and reliability processes **that deliver risk prevention, defect elimination and zero failure strategies.**