COURSE A: THE FUNDAMENTALS OF ORGANISATIONAL INTEGRITY

Module 4: Asset management policy, strategy, processes and plans

- We have seen how to build up an organisational integrity based company from values over leadership, the more human related aspects over to the set-up and implementation of an Integrity Management System to make sure that you know what is expected from integrity in our business.

The importance of a Policy

- The policy and strategy gives something to hold on to and creates the direction in a company / organisation. In a fast-moving environment, the policy is a reference point (a compass)
- A Policy is a statement of intent/commitment. The policy must provide principles and guidelines for the governing of the company and it provides directions and limits within which decisions are made.
- Policy can be made explicit by the mission vision over goals, principles and guidelines. Simply, the mission is the reason for existence and the vision is what the company wants to be.
- And the policy is - in a lot of cases - extended to business or strategy principles we need to follow in order to realize the vision and goals.
- Derived from the company policies, lots of other internal policies are set up - for example, production policies, HSEQ Policies and HR policies etc. We need to integrate on one or another system the asset and organisational integrity policy. But we need to describe somewhere how we want to operate and manage our facilities and assets.
- The integrity policy needs to mention as a minimum, the principles and mandate requirements on integrity and has to be in-line with company policy and the policy has to assure that the interdependency and the interactions with other policies is guaranteed definitely with HSE policies - even HR policies in order to guarantee as a minimum level that the people receives the necessary competencies and skills for the integrity requirements.

Company policies in oil and gas - Mission/vision/goals – Values - principles

- Most oil and gas companies mention in their policy, their focus on safety and health, security excellence, environmental commitment, sustainability and profitability.
- All of the oil and gas policies express in different wordings that the integrity of their assets and organisation is key for them. This including the integrity commitment as to be reflected in how the company manages the asset management system and their assets during all life cycle activities from the concept through to the dismantling.
- So how a company wants to operate and manage their assets during the life cycles should be described clearly and the way of managing and operating the facilities and assets has to be described in a Management System also called Asset Management Integrity Management System or Operating Integrity Management System and so on.
The Fundamentals of Asset Integrity Management
Online Training Series – Course Summary

What is a Management System?
- A Management System is a set of interrelated processes, practices, procedures and instructions and includes organisational structure, roles and responsibilities. A management system is the framework or architecture of how the organisation will work.
- A management system is set up and related to 3 layers:
  - The Framework/Architecture of how a company looks at Asset Integrity management
  - Therefore, work needs to be translated to processes and flows with associated responsibilities, and
  - Needs to be translated further in to processes and instructions.
- It is important to describe clearly the scope of the Asset management system but does also the interdependencies and interaction with the other management system. Ensure that there are no conflicts in any of the systems.

Other Management Systems
- There are many Asset Integrity management Systems such as:
  - PAS55 - which describes the specs and requirements for Asset Management management system. These specs and requirements are used for the future ISO55000 management system used for Asset Management. It includes in every management system the Plan Do Check Act continuous improvement cycle.
  - Now, there are many other Integrity management systems such as the EXXON Mobil OIMS system. The importance is that the system must provide guidance to the leaders and other persons in order to ensure that they know what to follow and what are the requirements.

Asset Management Strategy
- Asset Management Strategy describes how a company will realize the Asset Management policy and how the Asset Management will contribute in the realization of the organisational plan.
- The Asset Management policy receives input from the corporate strategic plan and stakeholder requirements.
- The Asset Management strategy does impact on 2 levels:
  - The assets and Asset Management
- The Asset Management strategy needs to make clear the strategy related to the asset life cycle activities, for example, where we are going to invest or not invest or what our strategic maintenance activities are for critical assets and so the asset strategy relates to the asset life cycle strategy and besides this, there must be an Asset Management strategy that describes how to implement, enforce, develop or create Asset Management capabilities.
- The Asset Management strategy covers Asset Management activities such as - the implementation of a reliability program, and, we will set up a procedure for MOC processes, or we will improve integrity related competencies of the staff and so on. So the strategy has to include all integrity requirements for the assets and for the Asset Management, the capability or in other words - the organisational integrity.

Asset Management Processes and Plans
Stakeholders Requirements

- **A Stakeholder** is any person/organisation that can be positively/negatively impacted or cause an impact on the actions of a company, government or organisation.
- The first 4 stakeholder requirements are directly related to the core of the integrity requirements to integrate in AM strategy:
  - **Government - Law & regulations (compliance)** - existing and new regulations or rules must be integrated in the AM system. These rules can be related to the Safety, health and environmental requirements but also other requirements such as financial rules etc.. The license to operate a company is heavily dependant on this.
  - **Employees** - their expectations for safety and health
  - **Community** - Local culture elements - the community has next to their explicit requirements, expressed in regulations also implicit expectations such as being a good neighbor. One must be aware of what are cultural elements to integrate - what is the culture of the community and their people. You need to be aware that the behavior and values of people's influence by the local culture. For example, the difference of European, American and Chinese culture and how this influences integrity.
  - **Assurance requirements** - assurance companies are also requiring the implementation of integrity management.
- There are other requirements such as other stakeholders:
  - Shareholders requirements (profitability, Cash flow, ...) - lack of integrity is influencing directly their financial returns/turnover
  - Customer specific requirements (flexibility, quality, ...) - customer's delivery is in danger if integrity is not guaranteed
  - Suppliers requirements (delivery, availability, ...) - for example - your risk approach stated that you need to have access to spare parts within a certain time frame.

So to sum it up, we need to capture all the different stakeholders’ requirements in order to set up an appropriate Asset Management Integrity Policy and Strategy.

**Integrity in Policy and Strategy**

- Where can we now express our Integrity requirements for the management and operations of facilities and assets? The AM integrity policy has to be in line with the company values / codes of conducts.
- The AM integrity code of conduct exist, among others, out of:
  - AM integrity policy and the AM integrity System

**Asset Management Integrity Policy**

- The Asset Integrity Management Policy needs to contain the integrity principles and mandated requirements which were derived from PAS55. It needs to be clear that the principles and mandated requirements for integrity needs to be part of the policy. Integrity principles and mandated requirements derived from, and consistent with, the organisational strategic plan, providing a framework for the development and implementation of the asset management integrity strategy and the setting of the asset management integrity objectives.
- Requirements for assets and organisational integrity are expressed in the mission and vision statements of the organisation.
The mission is the reason for existence - to maximize integrity to ensure safety and quality of the products and assets to guarantee the safety of the people and the environment.

The vision shows the ambition that will be an integrity function which provides short and long term advantages for the company.

- Both the mission and the vision gives direction on what an organisation wants and it states the principles from the management of assets, their integrity as well as the organisational integrity.

**Asset Management Integrity System (AIMS)**

- The AMIS exists out of 3 layers:
  - Framework - we are mentioning the principles and requirements of an organisation's integrity also for example managers and leaders are responsible and accountable for integrity. Or it states that organisational change needs to follow the MOC process and so on.
  - This framework is further refined into processes where each step is linked with responsibility and authorities over the different rules.
  - This is where the processes are written out in procedures and instructions which provides clearly the purpose, the description and how to go about doing the activities.

- So if you take these 3 levels together with the policy, it is a code of conduct on what people need to do in Asset Management or Organisational Integrity. The expectation on the behavior is also sometimes expressed in the system but is also additionally expressed in the company's codes of conduct.

- Therefore, if you take the policy and AIMS we have the code of conduct on integrity.

**Integrity in policy & strategy**

- Integrity is embedded in the policy and/or AIMS and both describe the principles and requirements. There can be a conflict between the strategy and/or the objective and the integrity principles where the company stated that design and engineering of projects need to take into account all the design related standard requirements and rules. Can it be that the strategies, plans and objectives are so strict that there is no time to integrate all standard requirements or the organisation is not staffed adequately to perform good design within the desired timeframe?

- What if strategy or objectives are not congruent with the (AM) integrity principles? / What if managers are confronted with competing and ambiguous demands? Asset investments with no time or resources for good design? Time pressure to deliver with consequences safety risks? No money enough for good maintenance?

- It also brings pressure on the quality of our jobs even if it is stated in our policy and management system that quality is a pre-requisite and we are not doing it. It can be a budget reduction - in this case we need to extend maintenance inspection periods for critical equipment - what are we going to do?

- It is always possible that strategy and objectives are potentially increasing the risk but if the consequence is that we can no longer assure the quality and integrity principles we cannot accept this.
The requirements to fulfill these are:
- Commitment/accountability by senior management
- Leadership of management - all management
- Demonstrated commitment towards integrity
- Personal accountability
- Participation in such a way as to self-govern to the chosen culture and standards of integrity
- Implemented culture that encourages trust, open communication, courage, honesty - these 4 values are very strongly related and is required to assure that peoples and management behavior assures integrity is recognized and to reward before any other goal and/or ambition.

AM integrity systems in relation with other systems/norms
- Your AIMS has relations with other management systems. Some of these systems can be ISO14000 for environmental, ISO18000 for safety systems, ISO31000 for Risk Management and many others.
- For Oil and Gas organisations, there are specific standards to adhere to such as API, ASME, DNV and many others. The importance of it is that companies align and/or enrich their AIMS with the requirements of the standards.

AM system and Asset Life cycle activities - Introduction to Asset Management concepts and plans
- For every asset life cycle activity from concept to business case up until dismantling of the asset, we can set up an independent Management system. The classical approach is that we can set up the governing rules, policies and strategies, the concepts and plans etc
- We can do this for the engineering dept., operations and maintenance departments.

AM system and Asset Life cycle activities - Introduction Asset Management concepts & plans
- The Asset Management approach doesn't look to the different activities on its own but to the integral picture of how we need to manage our assets. We have an integral policy on AM which covers the activities of the engineering, operations and maintenance. This approach is very beneficial because it assures the asset lifetime approach and it focuses on asset delivery and not the activities. The Risk management approach is present on all levels.

Organizing AM system & Asset Life Cycle Activities - Roles and Responsibilities
- The asset owner, manager and service providers are all governed by the corporate governance body which ensure that everyone in all sites and levels follow the same processes, practices and procedures. So it gives you the possibility to benchmark and gather information in a uniformed manner the return of experience.
- The Asset Owner defines policies and strategies, the business values, the KPI's, the risk performance framework for the management of the integrity of the assets. The Asset Manager values the asset or the asset management risks and checks these with the framework of the asset owner. The asset manager defines measures to reduce risks which are known as concepts. These concepts are integrated in plans which are the basis for
server level agreements with engineering corporation and maintenance. So the asset manager assures an integrated approach on the effectiveness level - do the right thing and the service providers are focusing on the efficiency level - do the things right and on the quality level.

- So all these roles need to be organized and staffed with people and they need to have the correct means.

**Asset Management Concepts**

- All concepts are based on the Risk Management and criticality analysis is an important element of it.
- The engineering concept exists out of what are the requirements for you or improved capabilities.
- The asset operating concepts are all operating rules needed to run the asset in an effective and correct way.
- The maintenance concept that describes all the necessary maintenance measurements in order to reduce and manage risks.
- Next to these we have:
  - Compliance and integrity concepts - very important elements to integrate.
  - But we also have continuous concepts (the right side of the bow-tie method) and
  - We also have spare parts, data and documentation concepts.

**Asset integrity embedded in concepts Asset Portfolio criticality – risk assessment**

The concepts need to assure that assets and asset management contributes to the company’s values, policies, strategies, and goals and reduce risk. The asset integrity is really embedded in concepts, but you have it take care with 1 or 2 elements that concepts are not static, and that they are dynamic - they change over time if the strategy/risk profile changes etc. You have to take into consideration the interdependency of all these concepts. So if you make an investment, perhaps you don’t have to maintain as you always have.

How we manage risk - we look at the hazards/failures and we look at the risk matrix to see the consequence and likelihood - then based on that we have to take control measures to adapt a maintenance concept, operating concept, compliance concept etc...

**Asset management Plans**

Plans are:

- integrating the different concepts in a timeframe (planning)
- Forecasting and foreseeing the necessarily budget and resources
- The basis for the contract with service providing (what, when and budget)
- Plans are really the interaction between doing the right thing and doing the things right. These plans can have long-term perspective (Strategic plans), mid-term and short-term (operational) plans.
- There are several types of plan:
  - Project portfolio plans
  - Investment plans
  - Turnaround plans
  - Maintenance plans
  - Operation plans and budget(s)