Chapter 11
55000 Implementation Proposal Integrated With a Risk Management System for a Water Utility Case

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ABSTRACT

The main objective of this chapter is to suggest a methodology for the application of ISO 55000 for a water utility in order to obtain all the benefits of asset management from the starting point of application. In addition, risk is an important part of this methodology, so it also complies with the clauses of ISO 31000. The methodology consists of six steps to be carried out: plan (1), implement (2), risk management (3), monitor (4), analyze (5) and make decisions and improvements (6). The application of this methodology is an iterative process in which the information obtained is going to be used in the previous and subsequent steps so that its benefits are greater as time goes by. At each point in the guide, the actions to be taken in compliance with the clauses and sub-clauses of ISO 55001 will be proposed along with some documents so that companies have a clearer idea of how to proceed.

INTRODUCTION

This chapter comes from the Final Master Thesis of Pablo Zahera Bunes, industrial engineering master student, in collaboration with Vicente González-Prida, being a synthesis of the main content of this work.

The main objective of the chapter is to suggest a methodology for the application of ISO 55000 (ISO 55000, 2014), taking as an example a water utility because, due to the kind of activity it performs, the benefits of asset management are obvious, as well as the use of the author's professional experience.

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The methodology followed consists of the application of a PDCA cycle (Plan Do Check Action) suggested by the International Cupper Association (ICA, 2015), complying with each clause of the standard and highlighting the actions to be taken in the water utility case.

The methodology is composed of 6 steps: Plan (1), implement (2), risk management (3), monitor (4), analyze (5) and decision-making and improvement (6) where:

- Step 1 is the asset management planning and it is the P of PDCA cycle.
- Step 2 and step 3 are the development of the system as the D of PDCA cycle.
- Step 4 and step 5 represents the verification process, where the asset life cycle is analyzed, being the C of the cycle.
- Step 6 consists on the improvement action for the system and it refers to the A in PDCA cycle.

As it shows in the following figure:

Figure 1. Asset management system methodology. Steps of application.
Source: Self made