

Quick Guide

EEMUA 159 & API 653



Summary

EEMUA (Engineering Equipment and Materials Users Association) is a collection of members from over 60 national and regional standards committees. The aim is standardisation of quality and operational practices and procedures.

Well-designed standards can help ensure quality and consistency of activity and ensure that plant can be designed and operated optimally for long periods of time.

EEMUA have developed more than 200 engineering guides, information sheets and handbooks. These documents have been frequently adopted by international standards bodies like the International Organization for Standardization (ISO) or International Electrotechnical Commission (IEC) as the basis for their formal standards or used in entirety as the new standard.

API (American Petroleum Institute) also have a collection of standards for the oil and natural gas industry. These standards enhance the safety of industry operations, assure quality, help keep costs down, reduce waste, and minimise confusion.

EEMUA Publication 159 is considered to be the most comprehensive users' guide available on above-ground, vertical, cylindrical, steel storage tanks. It is used by regulators as an example of what good practice looks like. **API Standard 653** refers to tank inspection, repair, alteration, and reconstruction.

EEMUA 159 is the European standard and **API 653** is the American standard intended to assist in the inspection and maintenance requirements in order to minimise in-service problems and extend the useful life of these storage tanks.

They offer guidance on tanks built to BS, EN or API standards for the storage of petroleum, chemical feedstocks and products, and refrigerated gases.

These standards include: *BS 2654, API 620, API 650, DIN 4119-1, DIN 4119-2, CODRES, G0801 and EN 14015.*

Since **EEMUA 159** contains information on many topics that are not covered in **API 653**, the EEMUA publication can be considered complementary to the API standard.



Legal perspective

EEMUA 159 and **API 653** are not law, but they provide a clear direction to follow and practices to adopt in relation to design, installation, inspection, maintenance, testing, and decommissioning of engineering or process equipment.

Following good practice usually ensures that infrastructure is well-maintained and is taken into account should an environmental event take place.

The details in the EEMUA publications and API standards are embedded in the regulations implemented by governing bodies and covered by the legislation applicable.



Why you must act

You should maintain all your critical assets in accordance with the relevant standards to ensure you have a fully operational site with minimum risk to persons or the environment.

Using *EEMUA 159* and *API 653* as blueprints for your storage tanks and infrastructure promotes operational compliancy and aids businesses in running a safe and secure site.

The costs of failing to do this are not just environmental, but legal, financial, and reputational.

Penalties and reputational issues

There are no specific penalties for not following directions presented in *EEMUA 159* or *API 653*.

However, as these are adopted into the standards of governing bodies, then those standards would have significant penalties if not followed.



Practical application

Businesses should ensure their equipment is compliant with the relevant standards and guidelines that have resulted from publications delivered by EEMUA.

“EEMUA Publication 159 is considered to be the most comprehensive users’ guide available on above-ground, vertical, cylindrical, steel storage tanks.”

We advise working with an environmental partner who can assist in implementing *EEMUA 159* and *API 653* on your sites to help you maintain a compliant facility.



What you should do

1

Find out if your site and infrastructure has a detailed maintenance and inspection plan.

2

Complete yearly visual inspections on your above-ground storage tanks.

3

Carry out external NDT inspections on your storage tanks every 5 years.

4

Carry out comprehensive internal NDT inspections on your storage tanks every 10 years.

5

Work with an environmental partner who can guide you through the required inspection and maintenance regimes to ensure your sites remain compliant.



For help and support in applying this good practice to your organisation, contact our experts today. Call 0800 592 827 or visit adlerandallan.co.uk.