

CompeTank[®]



The official EEMUA training, assessment and certification scheme for tank integrity assessors, engineers, managers and others responsible for process safety and for the safe operation and maintenance of in-service storage tanks for bulk fluids.

Courses available in English, Dutch, French and German.

Become EEMUA^{®†} certified

Why CompeTank^{®†}?

Oil and petrochemical industry, feedstocks, refinery products, general chemicals and other products have been stored in above-ground, vertical cylindrical tanks for many years.

At first sight these tanks appear of simple design and construction with innocuous working environments. However, this is not the case in practice, as testified by the many accidents associated with such tanks that have occurred around the world over recent decades.

The **CompeTank** (**Competence with Tanks**) scheme aims to train, assess and certify as competent, those who have responsibility for the inspection, assessment, maintenance and oversight of tank storage operations.

Based on internationally recognised User Guides developed by EEMUA and other industry publications, as well as regulations and formal standards, **CompeTank** currently includes the following:

TankIntro^{™‡} is recommended for all levels of employees including technicians, managers and graduate or other engineers who are just starting to working with tanks, as well as tank farm managers, safety representatives and supervisors involved in recruiting tank integrity assessors and conducting their performance reviews.

TankAssessor^{™‡} is suitable for both newly qualified engineers and also operational personnel – supervisors, technicians, inspection personnel, and so forth – who have several years' relevant experience with storage tanks and require an improvement in their understanding of, and/or to become certified as competent in assessing the integrity of tanks and their associated ancillary systems, bunds and foundations.

TankStrategies^{™‡} will be appreciated by maintenance engineers, managers, inspection and other site personnel who require an improvement in their understanding of, and/or to become certified as competent in assessing the integrity of tank storage facilities, and who need to be able to calculate and make operational recommendations at all stages throughout tank life.

It is also possible for suitably qualified industrial personnel and others with an interest in the subject to attend the training only and choose not to enrol for the certification.



When and where will courses be held?

Courses are held in the UK, the Netherlands, France and Germany (all using the native language). Full details are available on the EEMUA website:

www.eemua.org/Training-and-competency/CompeTank.aspx

Courses are occasionally held in other countries whenever there is sufficient demand: contact EEMUA to discuss the possibilities.



TankAssessor & TankStrategies Refresher

courses are available to anyone who would like to renew their TankAssessor or TankStrategies certificate. The course provides suitable revision of the full TankAssessor and TankStrategies courses as well as providing up-to-date information and any revision made to EEMUA 159 since certification was first attained.

What are the objectives and content?

TankAssessor

Certificate of Competence in the assessment of storage tank integrity according to the EEMUA 159 User Guide

The **TankAssessor** course describes many of the key features of tank design and the common problems that can arise in service. The course identifies many of the actions that may be taken to avoid operational problems or remedy the effects.

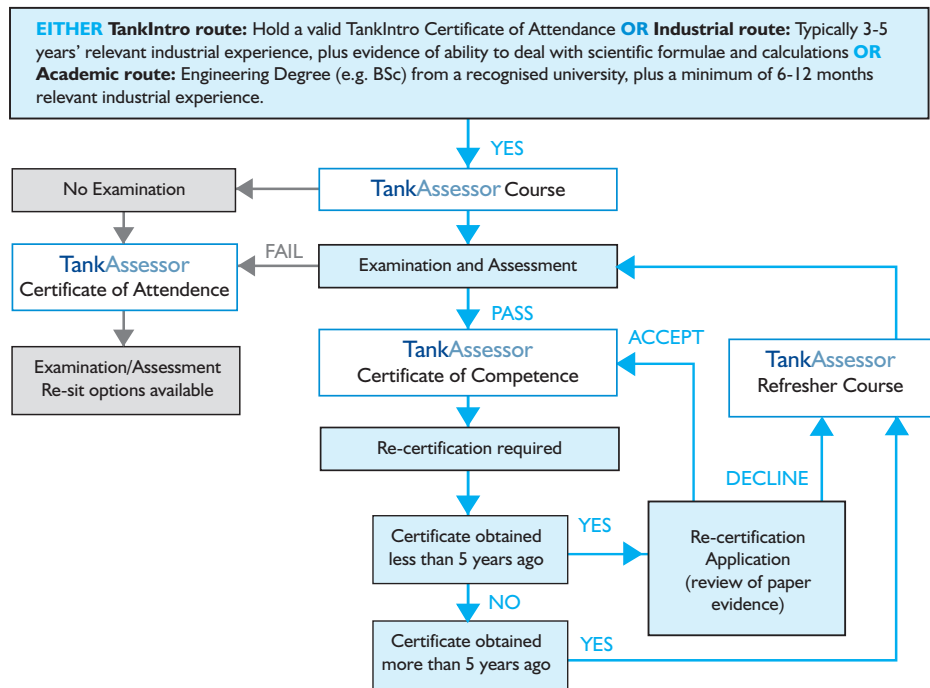
The objective of the TankAssessor course is to enable participants to:

- Gain an understanding of the design, material and fabrication aspects of tank construction with respect to repair or restrictions of use after degradation in service
- Understand the principles, output and limitations of inspection methods and techniques
- Be able to make a sound assessment of the integrity of a storage tank and foundation and offer guidance on the need for repair, its urgency and methods of effecting such repair
- Understand requirements for overflow protection
- Understand requirements for secondary and tertiary containment

Course content includes the following:

- An outline of the type of products that might be stored, codes of practice, tank types, materials, design parameters, venting, settlement, jacking and insulation
- An understanding of EEMUA Publication 159 (user guide), integrity assessment, methods of repair or restrictions of service
- In-service problems, such as corrosion, erosion and wear
- Visual and NDT inspection, reporting and evaluating results
- Case history and failure studies
- Repairs, welding processes and qualifications, quality control and testing
- Use of EEMUA 154 (tank demolition) and EEMUA 180 (frangible roof joints)

On successful completion of the prequalification, training, examination and assessment candidates are awarded a **TankAssessor** Certificate of Competence.



The **TankStrategies** course deals with the theory behind the Probabilistic Preventive Maintenance (PPM) methodology, which is based upon two underlying methodologies: Risk-Based Inspection (RBI) and Reliability-Centred Maintenance (RCM). Course participants are guided through the implementation of these methodologies for storage tanks.

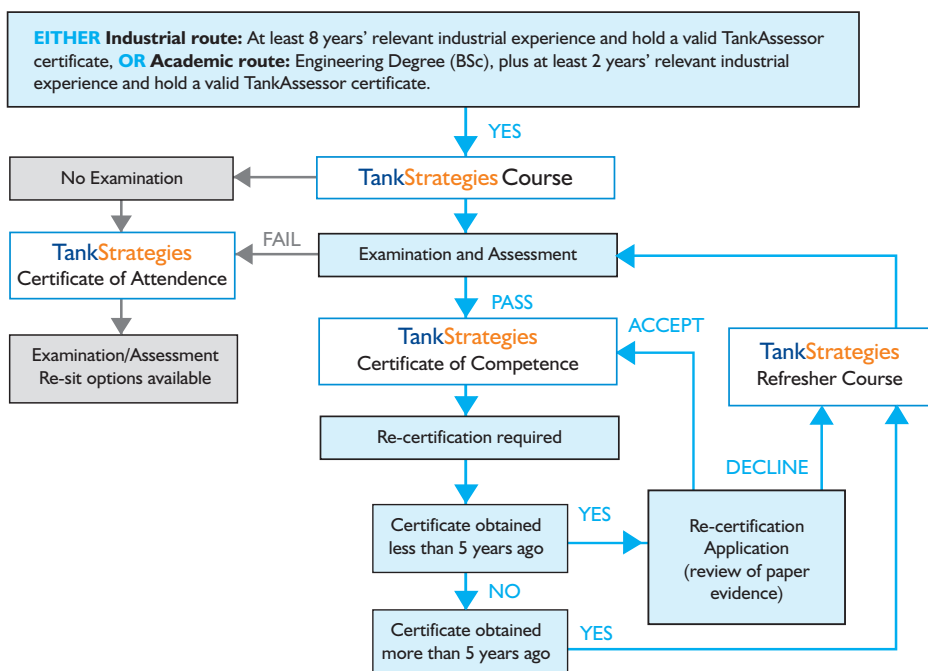
The objective of the **TankStrategies** course is to enable participants to:

- Understand the design and operational aspects of the use of storage tanks
- Understand and implement detailed inspection and maintenance plans, based on RBI and RCM methodologies
- Make a sound selection between the various models for maintenance of storage tanks (time based, condition based or risk based)
- Set budgets for inspection and maintenance tasks
- Schedule maintenance tasks in a structured way, similar to that for shut-downs on capital equipment

Course content includes the following:

- An understanding of EEMUA 159, integrity assessment, methods of repair or restrictions of service
- Operational aspects of tanks
- Tank integrity maintenance systems
- Availability and reliability of RBI, RCM and PPM techniques
- Budgeting of inspection and maintenance tasks
- Management of inspection and maintenance activities
- The use of international codes and standards
- Case history studies

On successful completion of the prequalification, training, examination and assessment candidates are awarded a **TankStrategies** Certificate of Competence.



TankIntro

The **TankIntro** training course provides an introductory overview of industrial-scale above ground steel storage tanks and the risks they pose. Attendees have the opportunity to gain a general awareness and appreciation of the need for tank integrity assessment, why it is done, and the general principles of what is involved, without going into any detailed calculations.

The objective of the TankIntro course is to enable participants to:

- Gain and understand an overview of the design, material and fabrication aspects of tank construction with respect to repair or restriction of use after degradation in service
- Understand the principles, output and limitations of inspection methods and techniques
- Test their knowledge through an end-of-day quiz and case study exercise.
- Gain an introduction to the content and purpose of EEMUA Publication I 59: Users' Guide to the Inspection, Maintenance and Repair of Above ground Vertical Cylindrical Steel Storage Tanks

By the end of the course, the participants will be able to:

- Distinguish the different structural parts of, and fittings to, conventional storage tanks and the function of each part
- Understand general tank design and operational aspects
- Be aware of inspection, maintenance and NDT programs/schedules and their importance
- Differentiate between different maintenance methods (condition/repair)
- Define the maintenance scope

There is no pre-qualification requirements for **TankIntro**, but participants should have a minimum of 1 year's relevant industrial experience before attending.

On successful completion of the training candidates are awarded a **TankIntro** Certificate of Attendance.



FAQs

Who runs CompeTank

The courses have been developed and are administered by the Engineering Equipment and Materials Users Association (EEMUA), an international, non-profit membership organisation with headquarters in London. Visit www.eemua.org for more details.

How long is a CompeTank certificate of competence valid for?

The certificates are valid for a period of up to five years, and may be renewed after that period, either by attending a Refresher training and assessment course and exam (recommended) or by review of work (ie assessment reports as evidence) to a maximum of 10 years, provided the recertification application is received before the certificate expires.

How long are the courses?

The **TankAssessor** & **TankStrategies** courses are both run over 5 days. This includes a final half-day for the examination and assessment. The TankAssessor Refresher course is run over 3 days, including examination and assessment. The TankIntro course is run over 1½ days. Course notes and a complimentary copy of EEMUA Publication 159 are included in the course materials.

How can I register?

A registration form* should first be completed and forwarded to EEMUA via email, post or fax, where it will be checked to ensure that your experience and knowledge meets the relevant entry criteria for the course.

Once eligibility has been confirmed, you will be contacted and advised to proceed with making payment.

* To obtain a registration form, please email events@eemua.org.

Is in-house training available?

Requests for in-house training will be considered by EEMUA on an individual basis; however, this is not the preferred arrangement. The course fee structure means that an in-house course is unlikely to be more economic than attending one of the public courses. Also, experience has shown that an off-site residential course is far more effective for the course delegates. For these reasons, the public courses are strongly recommended. Discounts may be available for group bookings.

Contact EEMUA on +44 (0)20 7488 0801 or events@eemua.org.

Established in 1995, this scheme has become recognised internationally by leading companies in the chemical and oil industries. Hundreds of candidates have successfully completed the courses since that time.

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