



Petroleum Inspector Certification Programme
Chemicals Inspection Module Training Requirements List

International First Edition July 2020

Training Requirements List:
International First Edition published July 2020

REQUIREMENTS FOR CERTIFICATION AS AN IFIA CERTIFIED INSPECTOR OF CHEMICAL CARGOES

The candidate must have successfully completed the IFIA Petroleum Inspector Certification Programme and must hold a valid certificate.

NOTE: It is permitted to take the main petroleum examination and the chemicals examination on the same day. However, failure of the main examination will result in loss of the fee for the chemicals examination.

The candidate's employer must have completed the "IFIA Chemical Cargo Inspector Certification Programme, Application for Certification" and must verify that all information contained in it is true and correct.

The candidate must present the above Application for review at the time of the examination.

The candidate must take and pass a qualifying examination administered by TIC Council. The minimum passing grade is 75%.

TIC Council requires the employer to attest that each candidate:

- has been working as a chemical cargo inspector for a minimum of 6 months and continues to work in this role
- has completed all of the Training Tasks noted in this document
- is aware and conversant with specific health and safety requirements laid down by national, regional or international regulatory bodies operative in the location of normal employment.
- has received appropriate training in the use of respiratory apparatus.
- is qualified to work under such regulations as may be specified locally in the normal place of employment by such bodies as port or customs authorities

and

INSTRUCTIONS

Candidate's employers must ensure that each candidate has completed all of the Training Tasks in the following list. A record of that training must be maintained by the employer and shall be made available for review by independent auditor or by TIC Council on request.

Although some of the training tasks are identical to those required for petroleum inspectors these must be repeated specifically for chemical cargoes.

When details of training are requested, companies may submit in-house training records (translated into English where necessary), which must show a date and signature to confirm completion of each individual training task.

However, TIC Council has published a Training Record Book in electronic format (.pdf) which may be used. This can be downloaded free of charge from the publications page of the TIC Council website at www.tic-council.org

CONTENTS

Health and Safety Training

Additional Classroom Training

Field Training

- Equipment Calibration

- Use of Gauging Equipment

- Shore Tank Gauging

- Marine Vessel Gauging

- Temperature Measurement

- Automatic Sampling Equipment and Procedures

- Manual Sampling Equipment

- Sampling General

- Sample Containers

- Manual Sampling Procedures

- Sampling Ships and Barges

- Sample Handling

- Vessel Loading

- Vessel Discharge

- General Vessel Operations

HEALTH AND SAFETY TRAINING

Item	
Chemical cargo hazards	
- Flammability	
- Corrosivity	
- Poisoning	
- Carcinogens	
First aid	
Exposure limits	
Safety Data Sheets	
Personal protective equipment	
- General	
- Splash protection	
- Respiratory protection	
Stop Work Authority	
Sample handling	
Static electricity	
Confined spaces awareness	
Working with road and rail wagons	

ADDITIONAL CLASSROOM TRAINING

Item	
Ethics and the IFIA Code of Practice	
Chemical cargo properties	
- Alcohols	
- Oxygenates	
- Aromatics/solvents	
- Inhibited cargoes	
- Acids and bases	
Cargo compatibility	
GHS labelling	
Cargo heating and stowage issues	
Sampling and sample containers	
Inhibitor calculations and certificates	
Tank passivation	
Tank entry procedures and permits	
Wall wash equipment and methods	
Inerting of tanks (nitrogen blanketing)	
Chemical vessel tank, pipework and pump room layout	
Tank coatings	

FIELD TRAINING

Use of Gauging Equipment	
Manual gauging tapes (for innage or dip and ullage)	
Electronic gauging tapes (PEGDs) (for innage or dip and ullage)	
Ullage/Temperature/Interface equipment (UTIs)	
Operation of vapour control valves	

Shore Tank Gauging	
Dipping and ullaging	
Electronic gauge tapes (PEGDs and UTIs)	
Converting ullage to innage or dip	
Reference height determination and comparison	
Free water measurement	
Line fill calculations	
Line pigging	

Marine Vessel Gauging	
Manual gauging - open systems	
Manual gauging - restricted systems	
Manual gauging - closed systems	
Using automatic systems	
Gauging moving liquid (rolling vessel)	
OBQ and ROB Gauging	
Use of vessel equipment – checks and reporting.	

Tank Temperature Measurement	
Liquid-in-glass thermometers	
PET/UTI equipment	

Manual Sampling Equipment	
Bottle & cage	
Sampling cans/beakers	
Closed and restricted system equipment	
Drum samplers	

Automatic Sampling Equipment	
Note: Classroom training is accepted for these tasks where local equipment is not available.	
Automatic samplers (portable and fixed)	
Autosampler sample cans	

Sample Containers	
Types of containers:	
Glass	
Polyethylene	
Polypropylene	
Metal cans	
Autosampler cans	

Manual Sampling Procedures	
Care of equipment while sampling (cleanliness)	
Upper, middle, lower spot samples – position calculation	
Tank side tap sampling	
All-levels samples	
Running samples	
Line and manifold samples	

Sampling Ships and Barges	
Composite samples	
First-foot samples	
OBQ-ROB sampling	
Closed and Restricted systems	

Sampling Handling	
Sample tags/labels	
Sample receipts	
Transportation documents	
Transportation containers	
Sample segregation	
Sample security	
Sample distribution	

Wall Washing	
Selection of wash locations	
Solvent selection	
Sample collection	

Vessel Loading	
Cargo history	
Non-cargo spaces	
Sampling shore lines (jetty headers)	
Monitoring min/max cargoes	

Vessel Discharge	
Collecting load port samples	
ROB/Cargo retention statements	

General Vessel Operations	
Key meeting	
Deck inspection	
Stowage plan review	
Time report/Statements of facts	
Sealing valves/hatches/lines	
Reading drafts	
Letters of protest	
Notice of apparent discrepancy	
Weight conversion factors	
Calculating cargo quantities	
Documentation	