

PROFESSIONAL DEVELOPMENT PROGRAM
ADN Expert – Carriage of Dangerous Goods by Tankers

Duration: 32 hours

Mode: off-the-job

| № | Topics |
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| 1 | Objectives and structure of ADN |
| 1.1 | Introduction. Objectives of the ADN Agreement and its scope. Structure of the ADN regulations |
| 2 | Construction and equipment |
| 2.1 | Construction and equipment of ships subject to ADN. |
| 2.2 | Construction and equipment of tankers. |
| 2.2.1 | Aeration and ventilation systems |
| 2.2.2 | Loading and unloading systems |
| 3 | Classification and hazards of dangerous goods. |
| 3.1 | Classification of dangerous goods |
| 3.2 | Main hazards and damaging effects of dangerous goods. |
| 3.3 | Safety data sheet |
| 3.4 | Marking of dangerous goods. Labels on packages. |
| 4 | Transport and cargo handling |
| 4.1 | Transport, including operational requirements |
| 4.2 | Loading and unloading operations, including operational requirements. |
| 4.3 | Transport documents |
| 5 | Measurement methods |
| 5.1 | Measurement of toxicity, oxygen content and flammable gas concentration. |
| 5.2 | Sampling |
| 5.3 | Use of gas indicators, oxygen meters and toxicometers |
| 6 | Treatment of holds and adjacent spaces |
| 6.1 | Degassing into the atmosphere and into receiving facilities, cleaning, maintenance |
| 6.2 | Heating and cooling of cargo; |
| 6.3 | Handling of containers for residual products |
| 7 | Vessel stability |
| 7.1 | Parameters related to stability |
| 7.2 | Examples of stability calculations |
| 8 | Fundamentals of explosion protection |
| 8.1 | Explosion-proof equipment used |
| 8.2 | Selection of appropriate devices and installations |
| 9 | Hazards and prevention |
| 9.1 | Prevention and general measures to ensure safety. |
| 9.2 | Sparkling |
| 9.3 | Procedure for determining the composition of the atmosphere of the working area and the concentration of oxygen and toxic substances in it. Entry into closed premises. |
| 9.4 | Use of fire-fighting equipment and personal protective equipment. Use of fire extinguishers |
| Final assessment | |