JUPITER PRIME

Consulting • Training • Advisory

جوبيتر برايم للاستشارات والتدريب

COURSE BROCHURE

Advanced Port Quayside Safety and Marine Terminal Risk Training Course

jupiterprime.uk

info@jupiterprime.uk

Registered in the United Kingdom and Saudi Arabia

Advanced Port Quayside Safety and Marine Terminal Risk Training Course

Port Quayside Safety and Marine Terminal Risk is a 2-week training course for port managers, harbour operations staff and terminal leads, and it builds a quay risk control plan linking berth allocation, cargo handling equipment, vessel movements and emergency readiness. Busier quays, larger cranes and mixed contractor crews raise the cost of a single collision or dropped load. Jupiter Prime Training runs this course on port quayside safety for terminal leaders.

Why Port Quayside Safety Matters Now

Three forces shape port quayside safety today: larger vessels and cranes concentrating more activity on each metre of quay, contractor and stevedore crews rotating through terminals at short notice, and shipping lines and cargo owners asking for evidence that terminals control people, plant and spills. A terminal that handles this well keeps berths turning and crews unharmed; one that handles it badly faces crush injuries, cargo loss, pollution and berth closures. The course rests on ISO 45001 occupational health and safety management and ISO 14001 environmental management for quay pollution controls.

Who Gains Most from Port Quayside Safety

- Terminal operations leads who allocate berths, cranes and gangs for each vessel call
- Harbour operations staff who control vessel movements, pilotage windows and anchorage
- Quay safety leads who set traffic routes, exclusion zones and lifting rules
- Contract and stevedoring coordinators who bring outside crews onto the quay
- Port emergency and environment leads who plan for fires, spills and person-overboard events

A port gains most when its terminal operations lead, harbour staff and quay safety lead attend together and agree how risk decisions pass between quay and water.

Port Quayside Safety Capabilities

Participants leave able to read the quay as one connected system of vessels, cranes, vehicles and people.

- Assess berth allocation choices against vessel size, crane reach and quay load limits — berth planning decision
- Design segregated traffic routes for straddle carriers, trucks and pedestrians — quay layout approval
- Specify lifting plans for ship-to-shore cranes and heavy project cargo — crane supervisors
- Apply contractor induction and permit controls to stevedoring crews — terminal contract managers
- Calculate leading and lagging port performance indicators that include safety — port management board
- Build an emergency readiness matrix for fires, spills and marine casualties — harbour authority liaison

Key Port Quayside Safety Terms

- Quay apron — the working strip between vessel and stacking yard where cranes, vehicles and lashing crews operate
- Berth window — the agreed time slot a vessel occupies a berth, linking ship schedules with crane and gang allocation
- Lashing and unlashing — securing or releasing containers and cargo on deck, one of the highest fall and crush exposures
- Vessel traffic service — the shore function that monitors and advises vessel movements in port approaches and basins
- Twistlock — a locking device connecting containers whose handling creates struck-by and dropped-object hazards
- Berth productivity — moves or tonnes handled per berth hour, read alongside safety indicators to avoid unsafe pace

Port Quayside Safety Day by Day

Day 1: The Port as a Risk System

- Port Activity Mapping From Approach to Gate — Risk Hotspot Selection
- Stakeholder Map of Lines, Stevedores and Authorities — Safety Accountability Lines
- Container, Bulk and Ro-Ro Terminal Profiles — Hazard Pattern Comparison
- Quay Incident History Review — Priority Hazard Ranking
- ISO 45001 Context and Interested Parties — Terminal Safety Scope

Day 2: Berth Planning and Allocation

- Berth Window Scheduling — Vessel Sequencing and Crane Assignment
- Quay Load and Fender Capacity Checks — Vessel Acceptance Limits
- Draught, Tide and Under-Keel Clearance — Berth Suitability Decisions
- Simultaneous Berth Operations — Interference Between Adjacent Vessels
- Weather Limits for Cargo Work — Stop Work Criteria on the Quay

Day 3: Vessel Traffic and Marine Movements

- Vessel Traffic Service Coordination — Approach and Departure Sequencing
- Pilotage and Towage Planning — Tug Allocation for Large Vessels
- Mooring Gangs and Line Handling — Snap-Back Exposure Control
- Small Craft and Launch Movements — Basin Collision Prevention
- Anchorage and Waiting Area Rules — Congestion Risk Choices

Day 4: Cargo Handling Equipment

- Ship-to-Shore Crane Lifting Plans — Load, Wind and Boom Limits
- Straddle Carrier and Reach Stacker Operation — Visibility and Speed Controls
- Mobile Harbour Cranes and Heavy Lifts — Outrigger and Ground Bearing Checks
- Lifting Gear and Spreader Inspection — Defect Removal Decisions
- Equipment Maintenance Windows — Isolation and Lockout on the Quay

Day 5: People on the Quay Apron

- Pedestrian Exclusion Zones Around Cranes — Access Authorisation Rules
- Lashing Platform and Deck Work — Fall Protection Choices
- Traffic Segregation Layouts — Vehicle and Pedestrian Route Design
- Hatch Cover and Hold Entry Controls — Confined Space Decisions
- Fatigue and Shift Patterns for Gangs — Rostering Limits

Day 6: Dangerous Goods and Environmental Controls

- Dangerous Goods Segregation in Stacks — Placement and Separation Decisions
- Leaking Container Procedure — Quarantine Area Activation
- ISO 14001 Aspects for Terminals — Dust, Runoff and Noise Controls
- Bunkering and Fuel Transfer Oversight — Spill Prevention at Berth
- Ballast and Waste Reception — Pollution Liability Choices

Day 7: Contractors and Permits

- Stevedore and Contractor Prequalification — Safety Record Screening
- Quay Induction and Site Rules — Day-One Contractor Briefing
- Permit to Work for Quay Repairs — Hot Work and Diving Controls
- Contractor Supervision Ratios — Oversight of Rotating Crews
- Contract Safety Clauses and Reviews — Performance Consequence Decisions

Day 8: Port Performance Indicators

- Berth Productivity and Crane Moves per Hour — Unsafe Pace Warning Signs
- Leading Indicators for Quay Safety — Inspection and Observation Rates
- Lost Time and Dropped Object Statistics — Trend Interpretation
- Balanced Port Scorecard — Safety, Throughput and Turnaround Weighting
- Board Reporting of Terminal Risk — Investment Priority Decisions

Day 9: Emergency Readiness

- Quay Fire and Vessel Fire Response — Fire Team and Tug Roles
- Oil and Chemical Spill Response Tiers — Boom and Recovery Deployment
- Person Overboard and Water Rescue — Recovery Equipment Placement
- Port Emergency Plan Exercises — Scenario and Evaluator Design
- Business Continuity After Quay Damage — Berth Reallocation Choices

Day 10: Practising the Quay Risk Control Plan

- Berth Allocation Case Exercise — Applying Load and Window Limits
- Quay Traffic Layout Redesign — Applying Segregation Principles
- Spill and Fire Tabletop — Applying the Emergency Readiness Matrix
- Peer Challenge of Indicator Sets — Scorecard Refinement
- Quay Risk Control Plan — Final Assembly and Owner Assignment

Applying Port Quayside Safety After the Course

- Walk the quay apron with the terminal operations lead during a vessel call and redraw pedestrian exclusion zones around ship-to-shore cranes
- Add two leading quay safety indicators to the weekly berth productivity report and review them with stevedoring contractors

Port Quayside Safety Questions FAQ

What is port quayside safety and why does it matter now?

Port quayside safety is the control of risks where vessels, cranes, vehicles and people meet at the berth. It matters now because larger ships and cranes concentrate more activity on each quay, so one error can halt a terminal and injure crews.

Which roles gain most from port quayside safety training?

Terminal operations leads, harbour operations staff, quay safety leads, stevedoring coordinators and port emergency leads gain most. Each controls part of the berth, from allocation and vessel movement to contractor crews and spill response.

How does port quayside safety differ from a port performance management course?

It treats berth planning, cranes and vessel traffic through hazards, controls and emergencies. A port performance course centres on throughput, tariffs and commercial efficiency, reading safety only as one indicator among many.

What do you bring back from port quayside safety training?

You bring back a quay plan linking berth limits, traffic routes, lifting rules, contractor controls, indicators and emergency roles. It gives your terminal a single reference to test at the next busy vessel call.

Port Quayside Safety: The Way Forward

The quay risk control plan first informs how the next large vessel is allocated a berth, cranes and gangs. Terminal operations leads, harbour staff and contractor coordinators use it during every call. After its first use, revisit the balance between berth productivity targets and exclusion zones, since pace pressure is where quay controls tend to erode.