

# Operational and Contractual Supply of Petroleum Products

## OSC001

### Course Description

The global petroleum supply chain is a highly complex, commercially sensitive, and operationally demanding environment involving multi-party coordination, dynamic freight markets, evolving compliance mandates, and volatile geopolitical variables. Whether in upstream, midstream, or downstream contexts, the successful movement of petroleum products—from refinery tanks to international buyers—requires meticulous planning, precise execution, and full alignment between contractual obligations and marine logistics operations.

This advanced training course, "Operational and Contractual Supply of Petroleum Products," is designed to equip professionals with the critical commercial, legal, and operational competencies required to navigate the end-to-end supply process of petroleum cargoes. The program is particularly tailored to the needs of chartering officers, marine operations coordinators, terminal planners, contract administrators, logistics specialists, and petroleum traders involved in the transportation, supply, or legal review of petroleum cargo transactions.

Over five intensive days, the course examines every link in the petroleum product supply chain—starting with the classification of cargoes (e.g., LPG, LNG, clean, dirty, bunkers), extending through the vessel selection and chartering process, and culminating in port operations, cargo documentation, and contractual enforcement. A strong focus is placed on the interrelationship between operational delivery (cargo readiness, port execution, scheduling) and contractual performance (laytime, demurrage, force majeure, documentation liability).

Participants will develop fluency in:

- Recognizing how freight economics (Worldscale, FFAs) influence chartering decisions;
- Managing the interface between shipowner, charterer, terminal, and inspection agencies;
- Understanding the real-time implications of clauses in charter parties, lifting contracts, and supply agreements;
- Navigating operational disruptions including STS delays, documentation disputes, or vessel vetting failures;
- Identifying and mitigating exposure to maritime legal risks, sanctions enforcement, and supply chain non-compliance.

### Course Objectives

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

- Analyze and manage trade flows of crude oil, LPG, clean/dirty products, LNG, bunkers, and dry bulk.

- Apply chartering fundamentals (voyage, time, COAs) and negotiate charter party terms effectively.
- Execute real-world tanker operations (loading, STS, documentation, port procedures, vetting).
- Interpret and apply Worldscale and freight economics for route and rate optimization.
- Manage lifting schedules, laycan coordination, and unplanned delivery deviations.
- Understand marine legal frameworks, dispute scenarios, and compliance requirements including BIMCO clauses and sanctions.
- Integrate vessel tracking, freight analytics, and digital platforms into daily decision-making.
- Understand different types of contract like ( LPG / Crude / Naphtha ).
- Know their responsibility as a customer coordination and how to have good communications with other customers.

### Who Can Benefit

- Marine Operations and Chartering Coordinators
- Crude/Product Supply & Logistics Planners
- Terminal and Port Operations Teams
- Legal, Contracts, and Commercial Managers
- Freight Analysts and Voyage Economists
- Marine Assurance and Vetting Teams
- Supply Operation Teams
- Coordination Teams
- Oil Trading and Scheduling Support Professionals.

### Course Duration

5 Working Days

### Course Outlines

#### 1. Petroleum and Gas Cargo Fundamentals

- Overview of global petroleum supply chains and logistics nodes
- Classification of liquid energy cargoes: LPG, LNG, Clean, Dirty, Bunkers, Dry Bulk
- LPG logistics:
  - Propane vs. Butane characteristics and blending specs
  - Pressurized, semi-refrigerated, and fully-refrigerated transport modes
- LNG supply chain:
  - Containment systems (Moss, membrane), boil-off gas management, reliquefaction
  - Loading port certifications and LNG heel management

- Clean petroleum products:
  - Naphtha, gasoline, jet A1, ULSD — cargo compatibility and flash point handling
  - Refinery-export specs (Euro 5, ASTM D975, JIS K2204)
- Dirty cargoes:
  - VGO, slurry, HSFO — heating requirements, sediment issues, incompatibility mapping
  - Regional flow characteristics and seasonality (e.g., AG–India–China dirty lifts)
- Bunkers:
  - VLSFO, HSFO, ULSFO, MGO — pricing benchmarks, quality disputes, MARPOL Annex VI
  - TCE impact and bunkering strategy optimization
- Intermodal cargo shift trends and sustainability implications

## 2. Tanker Chartering and Freight Market Tools

- Tanker segmentation:
  - VLCC, Suezmax, Aframax, LR1, LR2, MR, Handy, Panamax — suitability and trading ranges
- Charter party types and structures:
  - Voyage, time, bareboat, COA, sub-charters — risk/reward profiles
- Chartering process in practice:
  - Enquiry to fixing to recap to CP exchange to ops coordination
  - Role of broker vs. charterer/operator
- Critical CP clauses and liability traps:
  - Laytime, demurrage, arrival windows, NOR acceptance, performance warranties
- Worldscales methodology:
  - Flat rates, WS differentials, route interpretation, DWT adjustments
- Freight types:
  - WS vs. lumpsum, port differentials, demurrage exposure modeling
- Market platforms and analytics tools:
  - Baltic Exchange, Shipfix, Platts, Argus Freight — comparing indices
  - AIS-based freight demand forecasting
- Forward Freight Agreements (FFAs):
  - Hedging strategies, P&L impact, and regulatory exposure

## 3. Tanker Operations and Port Procedures

- Port call operations:
  - Loading/discharging operations, shore interface SOPs, berth readiness

- Ship-to-ship (STS) transfers:
  - Risk exposure, fendering, lighting, tandem operations, terminal liability
- Tank prep and stability management:
  - Crude heating curves, slop treatment, pre-loading inspections
- Ullage, trim, and draft control:
  - Use of loadmaster software and compatibility with load/discharge port limits
- Documentation essentials:
  - Statement of Facts (SOF), Mate's Receipt, B/L issuance, manifest reconciliation
- Terminal readiness:
  - Advance Notice of Readiness (NOR), berth nomination, compliance with Port Facility Security Plan (PFSP)
- Vetting:
  - OCIMF SIRE 2.0 updates, inspection protocols, deficiency closure
  - P&I and H&M inspections – impact on call approval
- Voyage tracking tools:
  - Vortexa, Kpler, MarineTraffic – integration with scheduling and chartering

#### **4. Supply Operations and Cargo Coordination**

- Monthly lifting program management:
  - Nomination process, program visibility, reconfirmation cycles
- Laycan scheduling:
  - Tolerance bands, charterer/supplier interactions, STS clash avoidance
- Multi-party coordination:
  - Role of traders, terminals, shipowners, inspectors, marine ops, and chartering
- Cargo readiness:
  - Load port readiness audits, compatibility declarations, additive planning
- Substitution and force majeure:
  - Re-routing, vessel delays, lost laytime mitigation
- Delay communication protocol:
  - Real-time delay reporting and notification hierarchy
- Cargo documentation workflow:
  - Electronic B/Ls, LOI issuance, terminal certificates, customs interface
- Post-discharge client reporting and documentation cycle closures
- Supply KPIs:
  - Lifting timeliness, rejection rates, documentation error index

## 5. Contracts Between Two Companies

- FOB/ CFR contracts.
- Overview about different types of contract ( Terms/spot/ Semi-term ).
- Discuss the Major Points in Petroleum Contract Between Two Companies.
- Roles and responsibilities of each party including Operational Responsibilities.
- The common General terms and conditions in any company.

## 6. Maritime Legal and Compliance Essentials

- Charter party legal frameworks:
  - Voyage/time contracts – enforceability, recap disputes, agent liability
- Common disputes:
  - Demurrage clock disputes, off-hire triggers, NOR invalidity, contamination claims
- Letters of Indemnity (LOI):
  - Club cover limitations, alternative mechanisms, judicial trends
- Trade compliance:
  - Sanctions regimes (OFAC, EU, UK), vessel screening (Equasis, Sea-web)
  - KYC on counterparties, cargo type risk indexing, port state control watchlists
- BIMCO clauses:
  - Force Majeure, Sanctions, ETS (Emissions Trading), EEXI, Liberty & Deviation
- Emerging frameworks:
  - ESG clauses, carbon clause insertions, green route incentives
- Maritime arbitration:
  - LMAA, SCMA, ICC – cost/timeline differences, enforcement pathways
  - Case studies from crude/product arbitrations.

