

Standard Operating Procedure (SOP) for Tanker Ship Operations & Incident Management

1. Objective

To ensure safe, secure, and environmentally compliant operations on tanker vessels by providing clear protocols for managing daily shipboard activities and effectively responding to operational incidents.

2. Scope

This SOP applies to all crew members aboard oil, chemical, or gas tankers during daily operations including cargo loading/unloading, ballasting/deballasting, tank cleaning, watchkeeping, engine room operations, and emergency response.

3. Responsibilities

Master: Overall command, ensures compliance, initiates emergency response

Chief Officer: Supervision of deck and cargo operations, leads safety drills

Chief Engineer: Engine room safety, fuel systems, and machinery operation

Pumpman: Operation & maintenance of pumps and valves

Safety Officer: Risk assessment, drills, recordkeeping, and safety oversight

All Crew: Follow SOP, wear PPE, report unsafe acts/conditions

4. Common Day-to-Day Incidents on Tankers

4.1 Static Electricity Spark During Cargo Transfer

Immediate Actions: Stop cargo operations, shut manifold valves, sound alarm.

Preventive Measures: Ground equipment, bonding, intrinsically safe tools.

4.2 Inert Gas System Failure During Discharge

Immediate Actions: Stop discharge, restart IGS, monitor O2.

Preventive Measures: Regular IGS checks, backup systems.

4.3 Fire in Cargo Pump Room

Immediate Actions: Activate alarm, close remotely, use CO2.

Preventive Measures: Thermal scans, no oil leaks.

4.4 Oil Spill During Bunkering

Immediate Actions: Stop, deploy SOPEP, notify port.

Preventive Measures: Ullaging, overflow alarms, good comms.

4.5 Toxic Gas Exposure During Tank Cleaning

Immediate Actions: Evacuate, give oxygen, notify bridge.

Preventive Measures: Gas checks, PPE, PTW system.

4.6 Anchor Slipping During Anchoring

Immediate Actions: Stop windlass, engage stopper.

Preventive Measures: Calculate tidal force, maintenance checks.

Standard Operating Procedure (SOP) for Tanker Ship Operations & Incident Management

5. Daily Routine Safety Procedures

Pre-cargo ops: IGS online, oxygen < 8%, cargo plan reviewed
Watchkeeping: Radar, AIS, ECDIS, logs
Engine Room: Oil level, bilge check, leak detection
Tank Entry: Gas-free certificate, PTW, rescue ready
Mooring Ops: Lines checked, team briefed

6. Drills & Training

Fire + Explosion: Weekly
Oil Spill Response: Monthly
Enclosed Space Rescue: Monthly
Abandon Ship + Lifeboat: Monthly
Toxic Gas Response: Quarterly
Emergency Cargo Shutdown: Quarterly

7. Incident Reporting Process

1. Log the incident in the Deck/Engine Logbook.
2. Fill Company Incident and Near Miss Report.
3. Notify Designated Person Ashore (DPA).
4. Conduct Root Cause Analysis.
5. Submit report with Corrective and Preventive Action (CAPA).

8. Equipment & Safety Systems Maintenance

IGS & Firefighting: Weekly
Cargo valves/pipes: Post-discharge
Gas detectors: Monthly
PPE inventory: Each port call
Emergency switches: Every voyage

9. Environmental Compliance

Follow MARPOL Annex I-VI for oil, garbage, ballast water, emissions.
Maintain Oil, Garbage, and Ballast Water Record Books.
Discharge slops at approved reception facilities only.

10. Review Cycle

Reviewed every 6 months or post-incident.
Audited during internal/external ISM audits.

Appendices

Standard Operating Procedure (SOP) for Tanker Ship Operations & Incident Management

- A. SOPEP Checklist
- B. PPE Matrix
- C. Risk Assessment Template
- D. IGS Guide
- E. Emergency Contacts