

Surviving Port State Control

A Ship Officer's Guide

BUNKERING101

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A Ship Officer's Guide to Inspection Preparation, Deficiency
Prevention & Detention Avoidance

Bunkering101

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Preface

Surviving Port State Control: A Ship Officer's Guide to Inspection Preparation, Deficiency Prevention & Detention Avoidance is written for the people who face port state control inspectors — masters, chief engineers, deck officers, and the company Designated Persons Ashore (DPAs) who support them.

Merchant vessels subject to the applicable conventions (commonly 500 GT and above for SOLAS and MLC; some regimes use other thresholds) can be inspected by port state control at virtually any port in the world. Most inspections find nothing serious. Some find deficiencies that cost time, money, and reputation. A few result in detention — the vessel held until problems are fixed, with charterparty consequences, classification implications, and public embarrassment in online databases.

This book is about staying off the detention list.

What this book covers:

- How PSC works — the regimes, the targeting systems, the inspection process
- What inspectors look for — the most common deficiencies by convention (SOLAS, MARPOL, MLC, STCW)
- How to prepare — the 72-hour pre-arrival checklist that prevents most problems
- How to manage the inspection — working with the inspector, not against them
- What to do when things go wrong — responding to deficiencies and detentions
- Real-world case studies of detentions that were avoidable

How to use this book:

Chapters 1–3 explain how PSC works and how inspectors think. Chapters 4–8 are the technical content — what gets caught, convention by convention. Chapter 9 is the preparation guide. Chapter 10 covers managing the inspection and its

aftermath. Chapter 11 is case studies. The appendices contain checklists, deficiency codes, and reference materials.

A note on regulation: PSC inspection practices evolve continuously through the Memoranda of Understanding. The specific targeting formulas and deficiency statistics cited in this book reflect conditions as of early 2026. Always verify current requirements through your flag state and class society.

For questions, corrections, or feedback: contact@bunkering101.com

Chapter 1

What Is Port State Control?

What this chapter covers: The legal basis for PSC, how it differs from flag state control, the inspection statistics, and why PSC matters for commercial operations.

Prerequisites: None.

Key takeaway: PSC is not random harassment — it is a rights-based inspection regime grounded in international law. Understanding the legal framework and the statistics helps officers prepare rationally rather than defensively.

1.1 The Legal Basis

Port state control (PSC) is the inspection of foreign-flagged vessels by the port state (the country whose port the vessel is visiting) to verify compliance with international maritime conventions.

1.1.1 The Legal Framework

PSC is authorized by the same international conventions it enforces:

Convention	What It Covers	PSC Authority
UNCLOS 1982	Law of the sea	Art. 218: Port state enforcement of MARPOL
SOLAS 1974	Safety of life at sea	Regulation I/19: Port state control
MARPOL 73/78	Pollution prevention	Each Annex includes PSC provisions
STCW 1978 (as amended)	Standards of training, certification, watchkeeping	Art. X: Port state control
MLC 2006	Maritime labour conditions	Regulation 5.2: Port state responsibility
Load Lines 1966	Load line assignment	Art. 21: Port state control
TONNAGE 1969	Tonnage measurement	Art. 12: Port state verification
Anti-Fouling Systems 2001	Harmful anti-fouling paints	Art. 11: PSC provisions
Ballast Water Management 2004	Ballast water treatment	Regulation E-1: Port state control inspections

Table 1.1: International conventions authorizing port state control

1.1.2 Flag State vs. Port State Control

Dimension	Flag State Control	Port State Control
Who	The state whose flag the vessel flies	The state whose port the vessel visits
Basis	Primary responsibility under UNCLOS	Supplementary under international conventions
Frequency	Continuous (statutory surveys, audits)	Spot checks (typically 25–30% of calls)
Scope	Full compliance verification	Verify “no more favorable treatment” — foreign ships not treated better than domestic

Dimension	Flag State Control	Port State Control
Enforcement	Certificate issuance, withdrawal	Deficiency listing, detention, expulsion
Public visibility	Limited	Public databases (Tokyo MoU, Paris MoU, USCG)

Table 1.2: Flag state control vs. port state control

1.2 The Scale of PSC

1.2.1 Global Statistics (Approximate, 2024–2025)

Metric	Value
Total PSC inspections globally per year	~85,000–100,000
Inspections with deficiencies	~50–60%
Vessels detained	~3–4% of inspections
Most common deficiency category	Fire safety, lifeboats, MARPOL
Average deficiencies per inspection (with deficiencies)	3–4

Table 1.3: Approximate global PSC statistics

3–4% detention rate sounds low, but it means approximately 2,500–4,000 vessels are detained globally each year. Each detention costs an average of **USD 50,000–200,000** in delays, repairs, surveys, and off-hire.

1.3 Why PSC Matters Commercially

1.3.1 Direct Costs

Cost Component	Typical Amount
Delay (2–7 days average detention)	USD 15,000–50,000/day off-hire
Repairs and rectification	USD 10,000–100,000
Class society survey (detention follow-up)	USD 5,000–15,000
Flag state follow-up	USD 2,000–5,000
Legal and administrative costs	USD 5,000–20,000
Total per detention	USD 50,000–200,000+

Table 1.4: Typical cost of a PSC detention

1.3.2 Indirect Costs

- **Charter market reputation:** Vessels with detention history face lower charter rates and difficulty securing premium charters
- **Insurance implications:** Repeated detentions increase P&I premiums
- **Oil major vetting failures:** Tanker operators with PSC issues fail SIRE vetting, losing cargo contracts
- **Enhanced inspection targeting:** Detained vessels are flagged as **High Risk Ships (HRS)**, triggering more frequent future inspections
- **Crew morale and retention:** Serving on a vessel known for detentions affects crew confidence

1.4 The “No More Favorable Treatment” Principle

A key principle underlying PSC: foreign-flagged vessels must not receive more favorable treatment than vessels flying the flag of the port state. This means:

1. The port state can apply its own national standards to foreign vessels if those standards implement international conventions
2. Vessels from states that have not ratified a convention can still be inspected against it
3. The port state can detain a vessel that does not meet convention standards, regardless of the vessel’s flag state position

Practical implication: Even if your flag state has not ratified MLC 2006 or the Ballast Water Management Convention, you can still be inspected against these conventions in ports of states that have ratified them.

1.5 Decision Framework: Will My Vessel Be Inspected?

PSC is not random. Regimes target vessels using a risk profile, so a crew can assess — and reduce — its likelihood of a detailed inspection.

Is the vessel "priority" under the regime's targeting system?

- | — Flag state performance poor? → higher priority
- | — Classification society performance? → higher/lower priority
- | — Company performance history? → higher/lower priority
- | — Vessel age, type, deficiency history? → higher/lower priority
- | — Previous detentions? → HIGH priority (repeat risk)
- | — Any priority flag?
 - | — No → Lower inspection frequency; shorter, targeted inspection
 - | — Yes → Higher frequency; deeper inspection; more time on board

The levers a crew actually controls: deficiency history (a clean record reduces priority), how the vessel presents on arrival (readiness, documentation, cleanliness), and — critically — whether the previous inspection's deficiencies were closed and verified. Regimes reward consistency.

1.6 Worked Example: The Commercial Cost of Detention

A detention is far more than the PSC fee. It stops the ship.

Scenario. A vessel is detained for 3 days for a MARPOL-related deficiency (an oily-water separator malfunction and an incomplete Oil Record Book).

Cost	Estimate
Off-hire / lost trading (3 days at USD 18,000/day)	USD 54,000
Repair and parts	USD 15,000
Re-inspection and surveys	USD 8,000
Agent, pilotage, port costs	USD 6,000
Charterer claims / schedule disruption	Variable
Reputation (future targeting)	Long-term
Direct estimate	~USD 83,000+

The same deficiency addressed in port *before* the inspection — a USD 2,000 servicing and a properly completed ORB — would have prevented the detention entirely. The economics of PSC preparation mirror those of cargo claims: **small prevention costs, large failure costs.**

1.7 The “No More Favourable Treatment” Principle in Practice

The principle is simple: a foreign vessel must not be treated more favourably than a flag vessel would be. What it means in practice is subtler:

- A PSC officer may **not** accept a lesser standard simply because the vessel is foreign.
- Equally, PSC is **not** an excuse to impose stricter-than-convention requirements; the yardstick is the convention, not local preference.
- The principle underpins the whole system: it prevents flags from competing on lax enforcement.

For the crew, the practical implication is that **the convention text is the standard** — not the surveyor’s opinion, and not the port’s local habit. Where an inspector asserts a requirement, it should be traceable to a convention or a resolution. Knowing the reference is part of the defence.

1.8 First Principles: Why Port State Control Exists

PSC is not a random inspection habit; it is an institutional fix for a structural problem in international shipping. The problem is one of incentives, and PSC is the mechanism that corrects them.

The flag-state principal-agent problem. Under international law, the **flag state** is responsible for ensuring its vessels comply with conventions. But registration is, in practice, a market: owners choose a flag, and flags compete for registration revenue. That competition creates a perverse incentive — a flag that enforces lightly is cheaper and more attractive to some owners than one that enforces strictly. Each flag individually has an incentive to under-enforce, even though the collective result is worse for safety and the environment. This is a classic **race to the bottom**, and it is why flags alone cannot be relied upon.

The externality the port state bears. When a substandard vessel enters a port, the risk it carries does not stay on the flag's books — it is imposed on the port: pollution in its waters, danger to its citizens, and damage to its infrastructure and reputation. The port bears a cost it did not create and cannot control through the flag. That is the externality PSC exists to address.

PSC is the enforcement correction. The port state steps in to verify that visiting foreign vessels meet the conventions — exercising authority that the conventions explicitly grant. Where the flag failed to enforce, the port does. This is not duplication; it is the **subsidiary** enforcement layer that makes the global system work when flag enforcement is weak.

Why “no more favourable treatment” is the keystone. If a port treated foreign ships more leniently than its own, flags would gain a competitive advantage by enforcing lightly, and the race to the bottom would continue. The principle that a foreign vessel must not be treated more favourably than a domestic one removes that advantage. It is the rule that makes PSC a closed system: a vessel cannot escape its convention obligations by changing flag or trading region.

The database: making enforcement travel. Because port states share inspection outcomes, a detention follows a vessel between regimes. That transforms PSC from isolated port-level checks into a **networked** enforcement system:

a vessel detained in one region becomes high-priority in others, and a consistently clean record lowers priority everywhere. The incentive to comply is restored not by any single authority but by the network as a whole.

Why this matters to the crew. PSC is often experienced as an adversary — an inspector looking for faults. Seen from first principles, it is the port exercising a legitimate right to protect itself from risks the flag did not control, backed by a shared record that rewards consistent compliance. That reframing changes the posture from defensive to prepared: the goal is not to avoid scrutiny but to demonstrate, with evidence, that the vessel is managed to the convention standard the flag was supposed to guarantee.

The first-principles takeaway: flags have a structural incentive to under-enforce; ports bear the resulting risk; PSC is the corrective enforcement layer, held together by the no-more-favourable-treatment principle and the shared inspection record. Everything a crew does to prepare for PSC is, at root, about demonstrating that the flag’s obligation is actually being met.

1.9 Chapter Summary

- **PSC is authorized by international maritime conventions** — it is not arbitrary or illegal, and vessels subject to the applicable conventions (commonly 500 GT and above) are subject to it.
- **Approximately 3–4% of inspections result in detention** — that’s 2,500–4,000 vessels per year globally, each costing USD 50,000–200,000+.
- **PSC is supplementary to flag state control** — it exists because some flag states do not adequately enforce convention requirements.
- **The “no more favorable treatment” principle** means vessels can be inspected against conventions regardless of their flag state’s ratification status.
- **Commercial consequences extend beyond the direct costs** — charter rates, insurance, vetting, and future inspection targeting are all affected.

Next: Chapter 2 — The PSC Regimes: How the System Works

Get the Full Guide

This is a **free sample chapter** from *Surviving Port State Control: A Ship Officer's Guide*.

The full edition includes:

- **11 chapters** covering what PSC is, the inspection regimes, how inspectors think, the top deficiencies, MARPOL, SOLAS, MLC/STCW, the ISM Code, pre-arrival checklists, during/after inspection and case studies
- **Appendices** with the deficiency-code reference, pre-arrival checklists, a detention flowchart, MoU contact information, sources, a decision index that maps situations to actions, and a glossary/index
- Checklists and practical guidance to prepare a vessel for inspection

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