

09.26
ISSUE 292
12€

The next generation of Greek shipping
entrepreneurship in open dialogue

Evi Lazou-Laakaris
Maritime heritage
& social responsibility

NAYTIKA



95NX
Strength
in continuity

NAFTIKA CHRONIKA



XPONIKA

ISSUE
SPONSOR



New EU ETS proposal
Good or bad for shipping?

OCCS
A new path to shipping's
decarbonisation

Autonomous shipping
What lies ahead



The new OCIMF STS Transfer Guide: Three key questions every shipowner and ship operator should consider

by Dr. Alexandros Glykas,
CEO
of DYNAMARINE

The Chemical Distribution Institute (CDI), International Chamber of Shipping (ICS), Oil Companies International Marine Forum (OCIMF), and Society of International Gas Tanker and Terminal Operators (SIGTTO) published the second edition of the "Ship to Ship Transfer Guide for Petroleum, Chemicals and Liquefied Gases" almost a year ago, representing an important evolution in the industry's approach to the planning, management, and execution of STS operations.

More than a decade after the previous edition, the new Guide reflects a significantly changed operating environment, placing greater emphasis on key operational assurance dimensions, including risk management, human factors, vessel compatibility, security, and emerging technologies. At the same time, growing geopolitical uncertainty and increasingly complex operating conditions are introducing new considerations for shipowners and ship operators involved in STS transfers.

But what has changed in practice? How can the new guidance contribute to safer STS operations? And does it adequately address the emerging risks facing shipping today?

In the following article, we examine three key questions arising from the new STS Transfer Guide and what they mean in practice for shipowners and ship operators.

How does the new STS Guide support the key operational assurance dimensions?

The principal merit of the new STS Transfer Guide is that it reflects how STS operations have evolved since the previous edition in 2013. STS is no longer treated simply as a technical operation involving two compatible ships, suitable fenders, hoses, and a mooring arrangement. The new Guide adopts a broader operational assurance perspective, recognising that safe and effective STS operations depend on the interaction of several key operational assurance dimensions: risk management, human factors, vessel compatibility, security, emerging technologies, and operational assurance. Together, these dimensions address not only the ships and equipment involved but also the crews, the STS service provider, the operating environment, organisational controls, and the systems used to verify that operations are properly planned, executed, and monitored.

One of the most significant developments is the dedicated chapter on human factors, which the Guide treats as a central operational assurance dimension. It addresses safety-critical tasks, leadership, fatigue, situational awareness, communication, and, importantly, personnel's confidence to speak up or exercise Stop



Work Authority (SWA). The Guide recognises that accidents are rarely caused by one individual mistake; they frequently result from the conditions, systems, and organisational arrangements surrounding the people involved in the operation. This approach reinforces the wider risk management dimension by encouraging operators to identify not only technical hazards, but also the organisational and human conditions that may influence operational performance.

The dimension of vessel compatibility is equally fundamental. There are important technical improvements concerning fenders, cargo and vapour hoses, and mooring equipment, including updated fender-sizing calculations. Personnel transfer receives substantially greater attention, while cargo guidance is now clearly structured for oil, chemicals, LPG, and LNG. These provisions strengthen the assessment of whether the two vessels, their equipment, and the proposed transfer arrangements are suitable for the intended operation and prevailing environmental conditions.

The Guide also broadens the concept of assurance by placing greater emphasis on security and emerging technologies. Modern STS operations increasingly depend on digital information, communication systems, electronic navigation, data exchange, and technology-supported decision-making. These developments can improve situational awareness, planning, and efficiency, but they also introduce new operational and security considerations that must be assessed within the overall risk-management process.

A further important development is the strengthening of operational assurance itself. The STS Safety Checklists have been redesigned using the methodology of the sixth edition of ISGOTT and are structured sequentially to cover the complete STS operation. In this context, assurance means more than completing a checklist: it involves systematic verification that the required controls, equipment, competencies, communications, and procedures remain effective throughout the operation. It therefore provides the link between planning, execution, monitoring, and continuous improvement. Perhaps most importantly, the Guide

KEY OPERATIONAL ASSURANCE DIMENSIONS



encourages operators to not merely possess the publication but to integrate its recommendations into their safety management systems and operational procedures. In doing so, the six key operational assurance dimensions – risk management, human factors, vessel compatibility, security, emerging technologies, and operational assurance – become interconnected elements of an organisation-wide approach to STS safety. The new edition is therefore much more than just an operational manual: it provides a comprehensive framework for managing STS risk, verifying operational readiness, and strengthening assurance throughout the organisation.

Can the new STS Transfer Guide make STS operations safer in practice?

The new Guide has the potential to make STS operations significantly safer by moving the industry from a predominantly procedure-driven approach towards a risk-based, human-centred, and assurance-driven approach. However, the existence of improved guidance does not, by itself, make an STS operation safe. Its

effectiveness ultimately depends on how consistently its principles are applied, documented, verified, and supported by appropriate due diligence.

The Guide establishes the expectation that STS operations should be supported by a formal risk-management process through which hazards are identified and risks eliminated or reduced to as low as reasonably practicable (ALARP). Importantly, this process extends beyond the two vessels and considers the STS service provider, contractors, equipment, personnel, transfer location, and prevailing operating conditions. Risk management should therefore be regarded not as a single assessment completed before an operation, but as a continuing process connecting planning, due diligence, execution, monitoring, record-keeping, and post-operation review.

This is particularly important because every STS operation has a different risk profile. Vessel compatibility, environmental conditions, mooring arrangements, crew experience, equipment condition, traffic density, transfer location, and location-specific hazards may substan-

tially change the circumstances under which an operation is conducted. The Guide therefore places greater emphasis on operation-specific risk assessment, vessel compatibility, and the Joint Plan of Operations (JPO), rather than relying on the assumption that previous experience or the successful completion of similar operations is sufficient evidence that the next operation will also be safe.

These requirements can be understood through the key operational assurance dimensions: risk management, human factors, vessel compatibility, security, emerging technologies, and operational assurance. These dimensions are interdependent. A weakness in one may affect the effectiveness of several others. For example, vessel compatibility cannot be adequately assured without reliable technical information; human-factor risks cannot be properly managed without appropriate competence, communication, and operational records; and operational assurance cannot be demonstrated without evidence that the necessary checks and assessments were carried out and controls were implemented.

For this reason, due diligence and record-keeping become fundamental components of operational assurance. The organisation should be capable of not only demonstrating that procedures exist but also producing reliable evidence that risks were identified, compatibility was assessed, relevant information was exchanged, equipment and service providers were appropriately evaluated, personnel were competent, agreed controls were implemented, and lessons from previous operations were incorporated into subsequent decision-making. Records from completed operations therefore provide an important feedback mechanism through which recurring hazards, deficiencies, trends, and changes in risk exposure can be identified.

Safety is further strengthened through the Guide's treatment of human factors. Crew members must be appropriately trained and familiarised with STS-specific responsibilities, including those relating to mooring and unmooring, snap-back hazards, fender management, hose handling, personnel transfer, emergency disconnection, and collision and spill response. Effective assurance must consequently

consider not only whether procedures have been followed, but also whether the personnel performing safety-critical tasks have the competence, situational awareness, communication arrangements, and organisational support necessary to perform them safely.

Consequently, the safety improvements envisaged by the new Guide depend upon several mutually supporting layers: effective risk management, robust vessel compatibility assessment, competent personnel, appropriate equipment, reliable communication, security considerations, controlled introduction of emerging technologies, emergency preparedness, due diligence, and, critically, the creation and retention of records capable of demonstrating that these controls were actually applied.

The opposite is equally important. Where risk-management practices are inadequate, due diligence is superficial, or operational records are incomplete, unreliable, or unavailable, the key operational assurance dimensions cannot be adequately supported or verified. In such circumstances, uncertainty exists not only about individual hazards but about the effectiveness of the entire system of controls intended to manage them.

An STS operation conducted under such conditions should therefore be regarded as presenting a high level of risk, the precise extent of which may be difficult to determine. The concern is not necessarily that an accident will occur, but that the organisation may be unable to establish what hazards are present, whether the necessary safeguards remain effective, or how weaknesses in one operational assurance dimension may interact with weaknesses in another. The potential consequences, therefore, become difficult to predict and may extend beyond the immediate operation, affecting personnel safety, pollution, asset damage, business interruption, contractual exposure, regulatory consequences, and reputational harm. The central message is therefore that safe STS operations cannot be demonstrated merely by the successful completion of the manoeuvre or cargo transfer. Safety must be supported by a traceable chain of risk assessment, due diligence, operational controls, records, verification, and organisational learning. When that chain

The new OCIMF STS Transfer Guide reflects a significantly changed operating environment, placing greater emphasis on key operational assurance dimensions, including risk management, human factors, vessel compatibility, security, and emerging technologies.

is maintained, the operational assurance dimensions collectively provide a structured basis for controlling STS risk. When that chain is absent or materially deficient, operational assurance is weakened, uncertainty increases, and STS operations may effectively become high-risk activities with consequences that cannot be reliably anticipated.

Is the new STS Transfer Guide enough for STS operations in today's increasingly complex geopolitical environment?

The present geopolitical environment demonstrates why the new Guide's expanded treatment of security and dynamic risk assessment is particularly relevant. Developments associated with the Iran-US conflict and the wider security situation in the Middle East demonstrate that merchant shipping may face threats extending well beyond the conventional navigational and operational hazards normally associated with STS operations.

For an STS operation, these risks can be magnified because two vessels may remain alongside for many hours, manoeuvrability is restricted, personnel are concentrated on deck, and crews are simultaneously occupied with navigation, moorings, cargo transfer, and communications. The Guide specifically recognises this vulnerability, noting that personnel engaged in the operation may be unable to maintain their normal level of security alertness and that emergency unmooring to escape an attack requires close coordination between the two vessels.

The Guide therefore provides shipowners, operators, and STS service providers with an important framework for preparing vessels, safety management systems, crews, security arrangements, risk assessments, and emergency procedures. Before commencing an operation, the parties should establish clear procedures for responding to a security breach, including criteria for suspending cargo transfer, initiating emergency disconnection, and separating the vessels.

However, compliance with the Guide cannot transform an inherently unacceptable geopolitical risk into an acceptable one. Nor can the existence of procedures compensate for inadequate due diligence, incomplete information, weak risk-management

The new OCIMF STS Transfer Guide provides an opportunity for the industry to move beyond a compliance-driven interpretation of STS safety and towards a more integrated approach to operational assurance.

practices, or poor record-keeping. Where these elements are deficient, effective assurance across the operational dimensions cannot be reliably demonstrated, and uncertainty surrounding the operation increases substantially. In such circumstances, an STS operation may effectively become a high-risk activity with potentially unpredictable consequences, particularly because geopolitical threats can develop rapidly and may interact with operational vulnerabilities in ways that cannot be fully anticipated. Beyond conventional marine consequences, such as personnel injury or loss of life, pollution, and vessel damage, the operation may also lead to security incidents, detention, interruption of trade, contractual disputes, regulatory exposure, and significant reputational harm. The fundamental value of the new Guide in today's geopolitical environment is therefore not that it makes every STS operation safe. Rather, it provides the structure through which organisations can determine whether sufficient operational assurance exists to justify pro-

ceeding at all. One of its most important safety principles may consequently be the recognition that, when the key operational assurance dimensions cannot be adequately supported by reliable information, effective risk controls, due diligence, and documented evidence, the correct decision may be not to commence the operation, or to stop an operation already underway.

For shipowners and operators, the significance of the new Guide ultimately lies in how its recommendations are translated into everyday STS planning and decision-making.

Applying many of the principles receiving greater emphasis in the 2025 edition, including those relating to vessel compatibility, location and weather assessment, service-provider due diligence, mooring analysis, crew preparedness, and post-operation review, requires access to reliable information and a structured approach to risk assessment. The challenge is therefore not simply to demonstrate compliance, but to ensure that the relevant information is available to the master and shore-based teams early enough to support informed decisions before an operation begins.

This approach has also been central to DYNAMARINE's work in the STS sector, where operational and historical data are used to support assessments of vessels, STS service providers, locations, and other factors affecting an operation. Such information can complement vessel-specific risk assessments and help identify areas requiring additional attention or mitigation.

The broader message of the new Guide is therefore particularly relevant: effective STS risk management cannot be reduced to completing a checklist immediately before an operation. It is a continuous process involving due diligence, planning, technical assessment, competent personnel, training, operational feedback, and, where necessary, the willingness to reconsider whether an operation should proceed at all.

In this respect, the 2025 Guide provides an opportunity for the industry to move beyond a compliance-driven interpretation of STS safety and towards a more integrated approach to operational assurance.

