

中国船东互保协会文件

中船保通函〔2026〕4号

关于西南太平洋地区镍矿货物安全运输的 通函

各会员公司：

协会曾于2010年11月、2011年1月、2011年2月、2011年11月、2012年8月、2013年4月以及2013年8月分别发布了七份涉及镍矿运输的通函，即《关于运输易流态化货物的紧急通知》（中船保赔字〔2010〕16号通函）、《关于运输产自印度尼西亚、新喀里多尼亚和菲律宾镍矿的危险性》（中船保赔字〔2011〕01号通函）、《关于租家责任——镍矿运输中货物流态化的警告的通函》（中船保赔字〔2011〕03号通函）、《关于推荐使用承运易流态化货物租约条款的通函》（中船保赔字〔2011〕20号通函）、《关于运输产自印度尼西亚、菲律宾和新喀里多尼亚镍矿的危险性——强制通报要求的通函》（中船保赔字〔2012〕09号通函）、《关于再次提示镍矿运输危险性的通函》（中船保赔字〔2013〕08号通函）以及《关于再次警示镍矿运输危险性的通函》（中船

保赔字〔2013〕14号通函)。

鉴于运输产自西南太平洋地区的镍矿危险性巨大,国际保赔协会集团(IG)的所有协会均发布了后附通函,该通函由IG联合国际干散货船东协会(INTERCARGO)及罗克斯堡海事咨询公司(Roxburgh Maritime)共同编制,旨在系统阐明该区域镍矿出口运输所涉各类风险,并向协会会员提供有针对性的防损减损建议。

有鉴于此,为提请会员注意近期该区域(尤以菲律宾及所罗门群岛为甚)镍矿运输风险呈显著上升的态势,协会特发布本通函,与IG各成员协会之要求保持一致。同时,本通函中的内容并不取代前述已发通函中所涉及的针对会员的要求和建议,这些要求和建议仍然有效。

特此通函。

- 附件: 1. IG 协会通函
2. IG 协会通函翻译版



抄送: 协会领导

中国船东互保协会

2026年6月25日印发

Safe Carriage of Nickel Ore Cargoes in the South-Western Pacific Ocean





Introduction

Since 2024 there has been a significant increase in the volume of nickel ore exports from both the Philippines and the Solomon Islands located in the south-western Pacific Ocean. This surge in exports corresponds with heightened mining investments in these regions, driven by global demand for nickel in applications such as electric vehicle battery production and new processing facilities in Indonesia and China. However, this growth has raised substantial concerns about the suitability of some export materials for safe shipment.

The exports from both regions are expected to increase as investment has been diverted into alternative supply sources. Without improved practices, the frequency of nickel ore cargo incidents is likely to continue to occur.

This Circular has been prepared by the International Group of P&I Clubs in conjunction with INTERCARGO and Roxburgh. It aims to highlight the challenges associated with the export of nickel ore from this region and to provide recommendations to Members to help mitigate the associated risk.

Regional Geology and Material Characteristics

Nickel ore from the Philippines

(e.g. Surigao, Dinagat) and Solomon Islands is typically direct-shipped ore (DSO) with minimal processing on shore prior to loading, leading to variability in appearance, composition, and particle size. Cargoes presented for loading mainly consist of finer materials, such as soil and clay. The presence and proportions of these finer fractions (silt and clay) in a consignment is vitally important as they typically dominate how the material will behave.

The underlying geology of the nickel export products is dominated by high proportions of mineral clays and fine particles resulting in cohesive and low-drainage characteristics that retain moisture. It is these underlying characteristics that make the nickel ore from these regions more susceptible to strength loss (liquefaction, dynamic separation and cyclic softening) and stow instability (cargo shift) when exposed to cumulative stress from ship motions, even when cargoes presented for loading do not appear overly wet and include a combination of large and small particles.

The cohesive nature of finer fractions generates interparticle forces that retain water, reducing material strength under cyclic stress from ship motions. This induces cyclic softening (commonly termed liquefaction or dynamic separation), where a cargo



compacts and the degree of saturation increases, resulting in a rise in pore water pressure and incremental degradation of strength. In saturated states, the material transitions from solid-like to plastic or fluid behaviour, leading to stow instability.

Regulatory Framework

Nickel ore has a Group A hazard classification and is listed in the IMSBC Code appendix 1 individual schedules.

When a Group A cargo is carried, the shipper shall provide the ship's Master or their representative with a signed certificate of the TML and a signed certificate or declaration of the moisture content, each issued by an entity recognized by the competent authority of the port of loading. The certificate of TML shall contain, or be accompanied by, the result of the test for determining the TML.

When a Group A cargo is carried, the shipper must establish procedures for sampling, testing and controlling moisture content to ensure the moisture content is less than the TML when it is on board the ship. If the cargo is loaded on to the ship from barges, the shipper must include procedures to protect the cargo on the barges from any precipitation and water ingress. Such procedures must be approved and their implementation checked by the competent authority of the port of loading. The document issued by the competent authority stating that the procedures have been approved shall be provided to the ship's Master or their representative.

When a Group A cargo is to be loaded into more than one cargo space of a ship, the certificate or the declaration of moisture content shall certify the moisture content of each type of finely grained material loaded into each cargo space. Notwithstanding this requirement, if sampling according to internationally or nationally accepted standard procedures indicates that the moisture content is uniform throughout the consignment, then one certificate or declaration of average moisture content for all cargo spaces is acceptable.

Operational Challenges in Exporting Regions

1. In both the Philippines and Solomon Islands, the size and effectiveness of shipper's operations are highly variable. Established Philippine operations may have some material management procedures in place, but there are typically significant inconsistencies and a lack of controls over material composition and moisture content prior to loading.
2. The newer or reopened Solomon Islands mines often lack robust procedures, with sampling quality ranging from superficial pit methods to full-depth drilling, resulting in limited availability of accurate data on how a material composition varies.
3. It has been observed that many shippers have become increasingly restrictive and do not permit surveyors appointed on Members' behalf to attend pre-loading surveys, instead accepting only those survey companies nominated by themselves.
4. In some places, competent local qualified surveyors are not available. Pre-loading surveys can only be conducted remotely, and the results are generally unsatisfactory.
5. Roxburgh has noted there is a limited shipper understanding of the risks associated with the shipment of nickel ore cargoes and that some operations and local surveyors solely rely upon the fact that previous shipments have allegedly arrived at the disport without incident, leading to systemic issues such as self-regulation and unverified "in-house" material testing.
6. Roxburgh also notes that a small number of operations in the Solomon Islands have engaged credible third-party experts for sampling and testing protocol / procedural set-up. However, even in those situations, inconsistencies and errors in the interpretation of the test data is commonplace.
7. Incorrect selection and application of the flow table TML test procedure is commonplace.
8. Local surveyors regularly demonstrate an incorrect application and interpretation of complementary test procedures, such as the can test and grasp test.
9. Apparent inaccuracies of moisture content and the TML test certification is commonplace. The Shippers Declarations and FMP/TML/moisture content certificates provided by shippers often show errors of approximately 6–10%, with moisture content sometimes showing even greater deviations.
10. Shippers have inadequate moisture management procedures to protect the material from exposure to repeated or significant rainfall during stockpiling, transportation via barges and transshipment.

11. Roxburgh has observed that a shipper's particle size distribution (PSD) data, when provided, is often derived from a dry screening method, which can under report the fines and clays size fractions that typically control the behaviour of the consignment, resulting in a misunderstanding and misrepresentation of the risks associated with the shipment of the consignment.
12. Average moisture contents being declared to within 0.2 to 1% of the TML are commonplace. A key challenge with unprocessed direct shipped ores (DSO) is the inherent variability in its composition, which is beyond the shipper's control and directly leads to significant fluctuations in moisture content. As a result, it is not realistically possible for any shipper to maintain moisture levels within a narrow tolerance of 0.2–1% below the TML. In practice, moisture content can vary by 2–3% across a single consignment, meaning that even where the declared average is compliant, portions of the cargo are likely to be loaded above the TML.
13. Declared moisture content is typically around 35% yet the cargo can appear dry due to water being bound by the finer fractions, which make the use by local surveyors of complementary test procedures that rely upon a visual assessment methodology, such as the can test and grasp test, highly inaccurate and misleading.
14. This growing trend has coincided with reported 'near misses' involving minor cargo shifts during voyages, as well as more severe incidents, including significant cargo shifts and liquefaction events.

Shipper Sampling and Testing Requirements

Representative sampling of the consignment by the shipper is therefore essential to allow an accurate assessment of its cohesive tendencies, ability to drain and likely response to stress from vessel motions, taking into consideration:

1. Type of material;
2. Particle size distribution (PSD);
3. Composition of the material and its variability;
4. Manner in which the material is stored and transported in stockpiles, barges, rail wagons or other containers, and transferred or loaded by material-handling systems such as conveyors, loading chutes, crane grabs, etc;
5. Chemical hazards (toxicity, corrosivity, etc.);
6. Characteristics which have to be determined: moisture content, TML, bulk density/stowage factor, angle of repose, etc.;

7. Variations in moisture distribution throughout the consignment which may occur due to weather conditions, natural drainage, e.g. to lower levels of stockpiles or containers, or other forms of moisture migration;
8. Variations which may occur following freezing of the material;
9. Aspects such as the PSD, composition and variability of each portion of the consignment are essential to allow an accurate safety assessment of the material's cohesive properties, ability for moisture to drain and its likely response to stress from vessel motions; and
10. In accordance with IMSBC Code section 4.4.4, any substantial portions of the material which appear to be contaminated or significantly different in characteristics or moisture content from the bulk of the consignment must be sampled and analysed separately. Depending upon the results obtained in these tests, it may be necessary to reject those particular portions as unfit for shipment.

Recommended Information to be Requested prior to fixing

A shipper of Group A cargo shall be able to provide advanced information demonstrating how they comply with the requirements of the Code. When conducting due diligence with charterers prior to fixing the ship (or accepting an order), it is advised that Members request information such as that set out in the points below. If there is a reluctance or inability to provide this information it may indicate that the shipper is not complying with SOLAS Convention Chapter 6 Regulation 1, Regulation 1-1, Regulation 1-2 & Regulation 2. The information provided by shippers will likely need reviewing by an expert and which can create an opportunity for proactive dialogue.

1. Detailed procedures on sampling, testing and moisture control.
2. Evidence that the procedures have been approved and their implementation checked by the competent authority of the port of loading.
3. What national or international standards the shipper's laboratory employs for sampling and testing purposes.
4. Evidence that the shipper's laboratory has been recognised by the competent authority of the port of loading.
5. Laboratory test data, including moisture content, TML and particle size distribution range.
6. What assessment was undertaken by the shipper to ensure the TML test procedure selected is appropriate for the material intended for loading.
7. What methodology the shipper's laboratory uses to determine the flow moisture point and/or TML.



8. Photographs of the stockpiles and sampling activities.
9. What procedures the shipper has for predicting and monitoring rainfall events.
10. How the shipper assesses and evidences the impact of a rainfall event on the moisture content of each portion of the consignment.

Loading and Voyage Considerations

The ship's Master should monitor weather forecasts and ensure that cargo loading operations are suspended during periods of rain.

As cargo consignments are typically barge-delivered and tarpaulin-covered to mitigate against moisture ingress, the covers are removed for loading and should be reapplied prior to or during rainfall events. A ship's Master should monitor for rainfall at the barge loading location and reject uncovered barges that have been exposed to significant rainfall until the shipper can demonstrate the cargo has been re-sampled through its depth profile, re-tested and has a demonstrable moisture content profile less than its TML.

Shippers often attempt to air-dry rejected barges, but this is highly ineffective for clay-rich materials such as nickel ores, typically only yielding limited surface drying. The ship's Master should therefore be sceptical of any previously rejected portions of the consignment that are allegedly air-dried and re-presented for loading.

The ship's Master should carefully examine cargo offered for loading from barges / landing craft and if in any doubt of the moisture content, conduct can tests particularly when rain has been experienced. The can test is described in section 8 of the IMSBC Code as a spot check a Master can conduct if he is suspicious of the condition of the cargo, but it is not meant to replace or supersede laboratory testing which is the responsibility of the shipper. Section 8 states that if the sample shows signs of free moisture or fluid conditions, arrangements should be made to have additional laboratory tests conducted on the material before it is accepted for loading. Nevertheless, the cargo should never be accepted on the basis of the can test alone as it is difficult to accurately interpret the behaviour of the sample in the can and accordingly its moisture content.

The high clay content of nickel ore often predisposes cargo consignments to a reduction in strength from repeated shore handling, barge loading, transshipment and vessel motions on passage. This characteristic can result in an unexpected and rapid failure of the cargo stow occurring on passage.

It is therefore important for a ship's crew to undertake regular daily cargo inspections during the voyage where safe to do so. The inspections should look for any of the following changes to the cargo stow:

1. Reduction in height;
2. Flattening profile;
3. Softening of the periphery;
4. Surface water/slurry (dynamic separation);
5. Gaps developing between stow and bulkheads / side shells;
6. Cargo holds bilge soundings.
7. Rhythmic stow movement with vessel motions;
8. Cargo shift.

If any of the above changes appear to be occurring then the ship's crew should seek third party expert support and take action to reduce the energy input into the cargo (e.g., avoiding beam seas). The provision of photographic / video evidence during the cargo inspections significantly aids the effectiveness of the third-party support.

Additional Recommended Precautions

1. Loading should not be commenced until the Master is in possession of all requisite cargo information and documentation/certificates that a shipper is obliged to provide under the IMSBC Code or local regulations (where not in conflict with the IMSBC Code) and is satisfied that the cargo is safe to load and carry. The Moisture Content Certificate should be issued no more than seven days before loading commences, in accordance with the IMSBC Code; and
2. Following consultation with the Association, Members should consider appointing a surveyor on behalf of the ship in advance of loading to assist the Master. However, when communicating with the competent authority shippers and charterers it should be made clear that the appointment of a surveyor by the ship is not intended to and does not relieve the shipper of his obligations under the IMSBC Code or local regulations (when not in conflict with the IMSBC Code).

The terms of the surveyor's appointment may include but are not necessarily limited to the following:

- (a) To assist the Master with compliance with his obligations under the IMSBC Code and local regulations (when not in conflict with the IMSBC Code).

- (b) To contact and liaise with shippers to identify the stockpiles from which the cargoes are to be shipped on the subject vessel and to confirm that representative samples are correctly taken by the shipper in accordance with sections 4.4 and 4.6 of the IMSBC Code.
 - (c) To take Members' own representative samples for testing in an independent laboratory working to recognised national and/or international standards which may be located outside the country.
 - (d) To liaise with an independent expert to ensure that the shippers laboratory conducts its moisture content and TML testing in accordance with Appendix 2 of the IMSBC Code and/or recognised national/international standards.
 - (e) To compare the shipper's certificates with Members own test results for TML and moisture content. Masters should be wary of moisture content certificates provided by the mines laboratories and average moisture content percentages that are very close to the TML, and/or do not represent the compositional variability of the consignment. If there is significant rain between the time of testing and the time of loading the shipper must conduct check tests to confirm the moisture content of cargo consignment is less than the TML.
 - (f) To monitor the loading operation from start to finish, paying particular attention to the weather conditions and the presence of any moist and compositionally variable cargo in the barges / landing craft.
 - (g) To stop loading if further moisture and/or can tests are required, as necessary, on any parts of the cargo presented for shipment (sections 4.5.2 and 8.4 of the IMSBC Code).
 - (h) To monitor the stockpiles and/or barges to confirm that the cargo presented for shipment is from the designated and tested stockpiles and/or barges. This will involve keeping a careful tally and identification of barges / landing craft offered for loading.
3. If the Master or the appointed surveyor is presented with any document seeking their confirmation that the cargo is safe to carry, they should refuse to sign it. The obligation under the IMSBC Code is on the shipper to declare that the cargo is safe to carry and signing such a document could prejudice a Members rights of recourse against a shipper in the event of a subsequent casualty.

4. Report any instance of commercial pressure exerted on or intimidation of the Master, surveyor or experts to the Association so that this may be taken up by the Group with the Indonesian/Philippine/ Solomon Islands authorities.
5. Members should consider how they might protect themselves contractually before agreeing to carry nickel ore cargoes e.g. including BIMCO Solid Bulk Cargoes that Can Liquefy Clause for Charter Parties 2012. Equally Members should not be pressured to enter into charterparties which restrict their right to fully apply the provisions of the IMSBC Code, appoint independent surveyors of their choice or take and test cargo samples.
6. Members should refer to the Club any contractual and/or safe carriage concerns it may have relating to nickel ore cargoes loaded in Indonesia, the Philippines and Solomon Islands

Possible Prejudice to Club Cover

Members should be aware that they may be prejudicing Club cover if they fail to notify the Clubs that they plan to fix or charter a ship, or that a ship has been ordered, to load nickel ore from a port in Indonesia, the Philippines or the Solomon Islands.

All Clubs in the International Group have issued a similar Circular.

关于西南太平洋地区镍矿货物安全运输的通函

背景

自 2024 年以来,西南太平洋地区菲律宾与所罗门群岛的镍矿出口量显著攀升。该增长态势主要源于当地矿业投资持续扩张,以及全球市场对镍需求的稳步上升——镍作为动力电池生产的关键原材料,其战略地位日益凸显;与此同时,印尼及中国境内新建大量镍矿冶炼及加工设施,进一步拉动了区域镍矿出口。然而,出口规模的大幅扩张亦伴随着重大安全隐患,部分待出口镍矿货物不具备海上安全运输的条件。

随着资本持续流入,预计两地的镍矿出口量将进一步增长。若不改进作业规范,镍矿货物事故可能会继续发生。

一、区域地质与货物特性

菲律宾(苏里高、迪纳加特等矿区)及所罗门群岛出产的镍矿多为直运矿(DSO),装船前仅经极简的岸上处理,矿石在外观、成分及颗粒度方面存在显著差异。待装货物以淤泥、黏土等细颗粒物料为主要组分。货物中粉砂及黏土细料的占比至关重要,直接决定其海上运输过程中的稳性。

该区域镍矿地质基底富含黏土矿物与超细颗粒,物料具有高黏性、排水性差及保水性强等特点。即便货物外观并不潮湿,且粗细颗粒混杂,在船舶航行持续摇晃所产生的累积应力作用下,仍极易发生强度衰减(包括流态化、动态离析及循环软化)及堆垛失稳(货物移位)等现象。

细料黏性在颗粒间形成结合力,将水分锁于物料内部。船舶摇摆所产生的循环应力使物料强度快速衰减,引发循环软化(通称流态化及动态离析):货堆受压密实、饱和度上升,孔隙水压力随之增大,物料强度持续下降。一旦达到饱和状态,货物将由固态转变为塑性乃至流态,最终导致货堆失稳及移位。

二、法规监管要求

镍矿属于《国际海运固体散装货物规则》(IMSBC 规则)项下 A 类危险货物,列入规则附录 1 独立货物清单。

承运 A 类货物时,托运人须履行以下义务:

1. 向船长或船方代表提供经签署的适运水分限(TML)检测证书,以及经签署的货物含水量证明或声明。前述两份文件均须由装货港主管机关认可的实验室出具。适运水分限证书须附带完整的检测试验报告。
2. 建立标准化的取样、检测及水分管控流程,确保货物装船时含水量低于适运水分限(TML)。若货物通过驳船转运装船,须配套制定驳船防雨及防进水方

案。整套管控流程须经装货港主管机关审批,并由主管机关核验其实际执行情况。主管机关出具的流程审批文件须交付船长或船方代表留存。

3. 若货物分装于船舶多个货舱,含水量证明须分别列明每个货舱内各类细粒货物的实测含水率。例外情形:若依据国际或国家标准流程取样后,整批货物含水率均匀一致,可仅出具一份全船平均含水率证明。

三、出口产区实操难点

1. 菲律宾及所罗门群岛托运人的作业水平参差不齐。菲律宾成熟矿区虽设有物料管控流程,但装船前矿石成分及含水率的管控普遍存在较大波动,且管控标准不尽统一。
2. 所罗门群岛的新建或重启的矿山通常缺乏健全的作业规范,其取样质量参差不齐,从浅层矿坑取样到全深度钻探均有,因而难以获取反映物料成分变化规律的准确数据。
3. 据观察,许多托运人对第三方检验人日益苛刻,不允许代表会员的检验人参与装前检验,而仅接受其自身指定的检验公司。
4. 当地具备资质的持证检验人员稀缺,部分装前检验仅能远程开展,检测结果无法令人满意。
5. 罗克斯堡公司调研显示,托运人普遍对镍矿海运流态化风险认知不足,部分矿区及本地实验室仅凭"过往航次未发生事故"即判定货物安全,导致存在自我监管、内部自测且无第三方核验的系统性风险。
6. 罗克斯堡公司还注意到,所罗门群岛少数矿区虽聘请第三方专业机构构建取样及检测标准流程,但即便在此类矿区,检测数据的解读仍频繁出现偏差与错误。
7. 行业内普遍存在流动湿度法测定适运水分限(TML)的误用及错用现象。
8. 本地检验人对辅助简易试验(圆桶测试及手握试验)的操作及结果判读存在大量错误。
9. 含水率及 TML 证书数据失真现象频发。托运人提供的声明及流动湿度/适运水分限/含水率证书的误差普遍达 6%至 10%,含水率实测值的偏差更为显著。
10. 矿石堆场存放、驳船转运及过驳环节缺乏完善的防雨防湿措施,货物反复遭受雨水淋湿及进水影响。
11. 罗克斯堡公司调研显示,部分托运人提供的粒度分布(PSD)数据仅采用干筛法检测,导致大幅降低黏土及超细粉料占比,从而错误预估货物在海运时的流态化风险。

12. 申报的平均含水率通常仅较 TML 低 0.2%至 1%，但直运矿(DSO)未经加工，物料成分天然波动显著，托运人难以将含水率稳定控制在 TML 以下如此狭窄的区间内。单批次货物内部含水率波动可达 2%至 3%，即便申报平均值符合要求，货物局部含水率仍可能超标。
13. 货物申报含水率常高达 35%，但因细料锁住水分，外观仍呈现干燥状态。当地检验人仅凭圆桶测试及手握检验等简易试验来目视判定干湿，极易得出错误结论。
14. 与这一日益明显的趋势完全相符的是，陆续有报告称有船舶在航行中发生了轻微的货物移位险情，也有更严重的货物流态化事件，差一点就导致重大灾难。

四、对托运人取样与检测的要求

托运人必须对所运货物进行代表性取样，以便准确评估其粘聚特性、排水性能，以及在船舶运动应力下可能产生的反应，具体需考虑以下因素：

1. 物料种类；
2. 粒度分布(PSD)；
3. 物料成分及其波动幅度；
4. 物料堆存、驳船或轨道车转运、传送带或溜槽或抓斗装卸等全过程转运方式；
5. 化学危险性(毒性、腐蚀性等)；
6. 必检指标:含水率、适运水分限(TML)、堆积密度或积载因数、休止角；
7. 下雨、堆场底层自然排水及水分迁移所导致的整批货物含水率分布不均问题；
8. 物料冻结后的理化特性变化；
9. 整批货物各分段的颗粒度、成分及波动数据,是精准评估物料黏性、排水能力及船舶应力耐受度的核心依据；
10. 根据《IMSBC 规则》第 4.4.4 条款，若货物局部疑似受到污染,或其成分及含水率与主体货物存在显著差异,须单独取样检测。检测不合格的部分应予以拒收,禁止装船。

五、租约签订前建议向托运人索取的资料

承运 A 类危险货物的托运人须预先提供资料,以证明其完全符合《IMSBC 规则》的要求。会员在租约签订前(或接受运输订单前)开展尽职调查时,建议向托运人索取以下材料。若托运人拒绝提供或无法提供,则说明其大概率未遵守《国际海上人命安全公约》(SOLAS 公约)第六章第 1 条、第 1-1 条、第 1-2 条及第 2

条的相关规定。托运人提供的信息往往需要专家进行审核，而这一过程可为双方开展主动沟通创造契机。

1. 完整的取样、检测及水分管控操作流程；
2. 装货港主管机关出具的流程审批文件及落地执行核查记录；
3. 托运人实验室取样及检测所采用的国家或国际标准；
4. 装货港主管机关对该实验室出具的资质认可证明；
5. 完整的实验室检测报告：含水率、TML 及粒度分布区间；
6. 托运人关于所选 TML 检测方法适用于本批矿石的评估报告；
7. 实验室流动水分点及适运水分限(TML)检测操作规范；
8. 矿石堆场及现场取样的实拍照片；
9. 降雨预判及实时监测管控方案；
10. 降雨后评估及佐证雨水对各分段货物含水率影响的文件。

六、装船与航行阶段管控要点

船长须持续跟踪天气预报，降雨期间应立即暂停装货作业。

货物多经驳船运送，驳船应加盖防雨篷布以减少进水。装货时掀开篷布，降雨来临前须重新盖好。船长应实时监控驳船作业区天气状况，若驳船长时间露天淋雨，应拒绝装船，直至托运人完成深度分层重新取样复测，并出具整批货物含水率全部低于 TML 的检测报告。

托运人常将淋雨超标的货物露天风干，但镍矿因黏土含量高，露天风干仅能烘干表层，效果极为有限。船长对此前已拒收、声称经风干后二次送装的货物应保持高度警惕。

船长应仔细查验驳船待装货物。若怀疑含水率超标，尤其降雨过后，可现场开展圆桶测试简易试验。圆桶测试法在《IMSBC 规则》第 8 章中列明，供船长在怀疑货物状态时进行现场快速抽检，但该试验不能替代实验室检测，货物含水率的法定检测责任仍归属于托运人。该规则规定，若圆桶测试样品出现游离水或呈现流态现象，必须安排实验室复测并确认合格后方可装船。严禁仅凭圆桶测试结果接收货物，圆桶测试结果判读具有较强的主观性，无法精准判定含水率。

镍矿因黏土含量高，堆场转运、驳船过驳及海上航行持续摇晃均会持续削弱货物强度，航行中货堆可能突发失稳坍塌。

航行期间，船员应在确保安全的前提下每日定期巡检货舱，重点观察是否以下货堆异常迹象：

1. 货堆高度下降；
2. 货堆顶面塌陷变平；
3. 货堆边缘软化；

4. 表面出现积水或泥浆(动态离析);
5. 货堆与舱壁、船壳间出现缝隙;
6. 货舱污水井液位异常;
7. 货堆随船舶摇摆同步往复晃动;
8. 货物整体移位。

一旦发现上述任一异常迹象,船员应立即联系第三方专家,并采取措施减少船体对货堆的动力冲击(如避开横浪航行)。巡检全程应拍摄照片及视频留存,便于专家研判并制定处置方案。

七、附加风险防控建议

1. 船长须在收齐《IMSBC 规则》及当地法规(在不与《IMSBC 规则》冲突的前提下)所要求的全部货物资料及合格证书,并确认货物安全适运后,方可开始装船。根据《IMSBC 规则》,含水率证书的出具时间距装船不得超过 7 天。
2. 经与协会协商后,会员应考虑在装货前委派检验人登轮,协助船长全程把控作业风险,同时应明确告知主管机关、托运人及租家,船方自行聘请检验人员,不免除托运人依据《IMSBC 规则》(或当地法规,在不与《IMSBC 规则》冲突的前提下)所应承担的全部法定责任。检验人员核心任务应包括:
 - a) 协助船长履行《IMSBC 规则》及当地海事法规项(在不与《IMSBC 规则》冲突的前提下)下的法定义务;
 - b) 对接托运人确认装船矿石堆场,核验托运人取样流程符合《IMSBC 规则》第 4.4 条及第 4.6 条所要求的代表性取样标准;
 - c) 独立采集船方专属代表性样品,并送至具备国际或国家标准资质的境外第三方实验室检测;
 - d) 对接独立技术专家,监督托运人实验室严格按照《IMSBC 规则》附录 2 及相关通用标准开展含水率及 TML 检测;
 - e) 对比托运人证书与船方独立检测所得的 TML 及含水率数据。对于含水率无限接近 TML 的证书,以及无法体现整批货物成分波动的证书,船长应特别警惕。若取样检测至装船期间天降大雨,托运人必须重新检测,确认含水率低于 TML 后方可装船;
 - f) 全程旁站监督装货作业,重点关注天气变化及驳船内潮湿、成分不均的异常货物;
 - g) 若局部货物含水率存疑,需补充圆桶测试或实验室检测时,有权叫停装货作业(依据《IMSBC 规则》第 4.5.2 条及第 8.4 条);

- h) 核对堆场及驳船货物来源,确保待装货物均来自已检测合格的堆场或驳船,并做好驳船台账与标识核对工作。
3. 若有文件要求船长或船方检验人员签字确认"货物安全适运",应直接拒绝签署。《IMSBC 规则》明确规定货物安全声明的义务归属托运人,一旦签署,后续发生事故时船方向托运人追偿的权利将受到损害。
4. 若船长、检验人员或技术专家遭受商业施压或胁迫,应立即通报协会,由 IG 统一对接印尼、菲律宾及所罗门群岛海事主管机关进行交涉处理。
5. 签订运输合同前,会员应通过合同条款加强自我保护,例如在租约中纳入《2012 版波罗的海国际航运公会易流态化固体散货条款》。应避免签署限制船方完整执行《IMSBC 规则》、自主聘请检验人员及独立取样检测权利的租船合同。
6. 会员如在印度尼西亚、菲律宾及所罗门群岛装运镍矿货物时遇到任何合同和/或安全运输方面的疑虑,应及时咨询协会。

八、协会保险可能受影响的提示

协会在此提请会员公司注意,若会员船舶前往印尼、菲律宾或所罗门群岛装运镍矿时未能及时通知协会,将可能影响到保赔险的承保。

所有的 IG 协会均发布了此通函。