# Ethical Risk Assessment: Mitsubishi Heavy Industries Ltd. (MHI) and the GPFG Guidelines

## Executive Summary

### Introduction to Subject Company

Mitsubishi Heavy Industries, Ltd. (MHI) is a premier Japanese multinational corporation with a history dating back to 1884. It stands as one of the world's leading industrial groups, with a diverse and complex business portfolio that is foundational to global infrastructure. The company's operations are organized into four principal segments: Energy Systems; Plants & Infrastructure Systems; Logistics, Thermal & Drive Systems; and Aircraft, Defense & Space.[1] MHI's products and services are integral to numerous critical sectors, including power generation, commercial aviation, shipbuilding, industrial machinery, and national defense, making it a significant entity in the global economy and a subject of corresponding ethical scrutiny.[3]

### Summary of Key Findings

This report assesses MHI's activities against the "Guidelines for observation and exclusion of companies from the Government Pension Fund Global" (the Guidelines). The key findings are summarized below:

- **Product-Based Risk (§3):** The analysis reveals significant interpretive challenges. MHI is not found to be involved in the production of weapons explicitly banned by name in the

Guidelines, such as cluster munitions or anti-personnel mines.[4] However, its extensive involvement in the civil nuclear fuel cycle, including uranium enrichment and reprocessing technologies, presents a material risk under the clause prohibiting the production of "central components" for nuclear weapons, given the inherent dual-use nature of these technologies.[7] Furthermore, while MHI is a critical technology supplier to the thermal coal industry, it does not meet the literal definition of a "mining company or power producer" as stipulated in the coal criteria, though its activities are fundamental to the sector's operation.[9]

- **Conduct-Based Risk (§4):** The assessment identifies a pattern of conduct that raises material concerns. There are multiple, documented instances of corruption and economic crime across different jurisdictions and timeframes, including a bribery case in Thailand, a plea agreement for bid-rigging in the United States, and a formal reprimand from the African Development Bank for misrepresentation in Egypt.[12] This pattern indicates an unacceptable risk of future norm violations under Guideline §4g. Additionally, the company faces unresolved historical human rights issues related to wartime forced labor, where its continued refusal to provide court-ordered remedy constitutes an ongoing ethical concern under Guideline §4a.[15]
- **Geopolitical Risk (§4c):** MHI's risk exposure in this area is growing. Driven by a shift in Japanese government policy, the company is actively expanding its defense exports, most notably through a major frigate contract with Australia.[16] At present, MHI's known defense customers do not meet the high threshold of engagement in armed conflicts characterized by "serious and systematic breaches of international law" required to trigger Guideline §4c. However, this represents a significant emerging risk that requires close monitoring.

## Final Recommendation

Based on a comprehensive evaluation of the product-based and conduct-based risks, this report assigns a final risk category of **3 - Moderate Risk**. This categorization reflects the serious and documented conduct-based risks, particularly the recurring pattern of corruption and the unresolved human rights claims, which elevate the company's risk profile significantly above "Acceptable." However, outright exclusion is not recommended at this time due to powerful mitigating factors, including the company's credible and ambitious decarbonization strategy and its critical role in the global energy transition—factors that Norges Bank is explicitly empowered to consider under §6 of the Guidelines. This rating strongly suggests that MHI should be placed under observation and be the subject of targeted and intensive shareholder engagement to address the identified deficiencies in its corporate conduct.

# Corporate Profile and Materiality Assessment

## Operational Structure

Mitsubishi Heavy Industries, Ltd. is a highly diversified industrial conglomerate whose operations are managed through four primary business segments. Understanding this structure is critical, as the most salient ethical risks for the GPFG are concentrated within specific parts of the company's portfolio. The four segments are [1]:

1. **Energy Systems:** This is MHI's largest segment by revenue. It encompasses the design and manufacturing of a wide range of power generation systems, including highly efficient Gas Turbine Combined Cycle (GTCC) plants, steam power plants (for coal, oil, and gas), nuclear power plants and their components, and renewable energy solutions like geothermal and wind power. This segment is also responsible for developing key energy transition technologies such as carbon capture and hydrogen/ammonia solutions.[9] The most significant ethical risks related to nuclear components and thermal coal are housed within this segment.
2. **Plants & Infrastructure Systems:** This segment focuses on large-scale industrial and infrastructure projects. Its portfolio includes metals machinery for steel production, chemical plants, transportation systems (such as automated guideway transit), and environmental systems like waste-to-energy plants.[2]
3. **Logistics, Thermal & Drive Systems:** This segment produces a wide array of machinery and systems, including material handling equipment (forklifts), engines, turbochargers for the automotive industry, and HVAC systems for residential, commercial, and industrial use.[1]
4. **Aircraft, Defense & Space:** This segment is responsible for MHI's activities in commercial aviation, national defense, and space systems. It manufactures major airframe components for commercial aircraft like the Boeing 787, produces defense equipment for the Japan Self-Defense Forces (including fighter jets, naval vessels, and missile systems), and develops space launch vehicles like the H-IIA rocket.[2] This segment is the locus of risks associated with weapons production and sales.

## Financial Materiality

An analysis of MHI's financial performance underscores that the segments with the highest ethical risk profiles—Energy Systems and Aircraft, Defense & Space—are not peripheral activities but are core to the company's revenue streams and, more importantly, its future growth strategy.

For the fiscal year 2023, the Energy Systems segment was the largest contributor to MHI's revenue, accounting for 38%, while the Aircraft, Defense & Space segment contributed 17%.[18] Combined, these two segments represent over half of the company's total revenue.

Forward-looking indicators, such as order intake, reinforce this materiality. In FY2023, Energy Systems secured 36% of new orders, and Aircraft, Defense & Space secured 31%.[18] This trend continued and strengthened in FY2024, with MHI achieving record-high order intake driven by strong performance in GTCC within the Energy segment and significant contracts in the Defense & Space business.[26] The company's financial reports explicitly highlight GTCC, Nuclear Power, and Defense as its growing core businesses.[27] This demonstrates that the activities carrying the highest ethical scrutiny are central pillars of MHI's strategic and financial planning.

| Segment | Order Intake (FY2024, billion yen) | Revenue (FY2024, billion yen) | Profit from Business Activities (FY2024, billion yen) | % of Total Revenue |
|---|---|---|---|---|
| **Energy Systems** | 2,428.0 | 1,761.5 | 141.5 | 38% |
| **Plants & Infrastructure** | 867.3 | 795.2 | 41.5 | 17% |
| **Logistics, Thermal & Drive** | 1,318.6 | 1,314.5 | 87.0 | 28% |
| **Aircraft, Defense & Space** | 2,068.7 | 791.5 | 50.4 | 17% |

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|---|---|---|---|---|---|
| Data sourced from MHI FY2023 and FY2024 financial results presentations.[18] Note: FY2024 in MHI reporting corresponds to the year ended March 31, 2024. | | | | | |

## Key Insights and Analytical Focus

The corporate and financial structure of MHI gives rise to two critical considerations that frame this entire assessment.

First, the concentration of ethically sensitive activities within the Energy Systems and Aircraft, Defense & Space segments means that any identified risks are not incidental but are systemic to MHI's core business model. These are not legacy operations that can be easily divested; they are the primary engines of current revenue and future growth, as evidenced by the substantial order backlogs.[27] Consequently, any decision by the GPFG regarding MHI, whether it be engagement, observation, or exclusion, will have a material impact on a core part of the company's operations and cannot be treated as a minor compliance issue. This elevates the gravity of any findings under the Guidelines.

Second, it is imperative to draw a clear distinction between Mitsubishi Heavy Industries, Ltd. and other entities that operate under the "Mitsubishi" brand as part of the broader *keiretsu* (group of affiliated companies). The research material contains significant human rights allegations directed at Mitsubishi Motors concerning its electric vehicle supply chains [28] and at Mitsubishi Corporation regarding its seafood supply chains.[30] MHI is a legally distinct and separately traded corporation (TSE: 7011). While brand association may create reputational contagion, the GPFG's Guidelines for exclusion apply specifically to the company in which the fund is invested. Therefore, this assessment will rigorously focus only on the activities and conduct of Mitsubishi Heavy Industries, Ltd. and its consolidated subsidiaries, thereby avoiding a critical analytical error of brand conflation.

# Analysis of Product-Based Risk (Guideline §3)

This section evaluates MHI's products and services against the specific product-based exclusion criteria set forth in Section 3 of the Guidelines. The criteria are absolute, stating that the Fund "shall not be invested" in companies involved in the production of certain weapon types.[31]

## Involvement in Prohibited Weapon Systems (§3a)

### Nuclear Weapons

The Guideline in §3a prohibits investment in companies that "develop or produce... nuclear weapons, [or] central components to" them.[31] MHI is not a producer of nuclear warheads. However, the company is a comprehensive manufacturer for the civil nuclear power industry, with deep involvement across the entire nuclear fuel cycle.[7] This includes the construction of Pressurized Water Reactors (PWRs) and, critically, facilities for uranium enrichment and the reprocessing of spent nuclear fuel.[8]

The core of the risk assessment under this clause hinges on the interpretation of "central components." Uranium enrichment and spent fuel reprocessing are inherently dual-use technologies. They are the primary pathways to producing the fissile materials—highly enriched uranium and plutonium—that form the core of a nuclear weapon. While MHI's activities are conducted in the context of Japan's civil nuclear energy program, a country that is a signatory to the Non-Proliferation Treaty, the technologies it develops, manufactures, and deploys are fundamentally the same as those required for a weapons program. This places MHI in a high-risk category for potential contribution to nuclear proliferation, should its technology or expertise be diverted. The company's deep technical capabilities in this area, from reactor core design to fuel fabrication, mean it possesses the know-how related to the most sensitive aspects of the nuclear fuel cycle.[8] This involvement creates a significant interpretive challenge for the Council on Ethics regarding whether these dual-use technologies constitute "central components" under the Guideline. The broader financial community in Japan recognizes this sensitivity, as evidenced by Mitsubishi UFJ Financial Group's (MUFG) policy decision to exclude financing for nuclear weapons production due to their "inhumane nature," signaling a growing norm against such involvement.[35]

### Cluster Munitions, Anti-Personnel Mines, and Other Prohibited Weapons

Guideline §3a also provides an explicit list of other prohibited weapon categories, including cluster munitions, anti-personnel mines, biological and chemical weapons, incendiary weapons, blinding laser weapons, and weapons with non-detectable fragments.[31]

A thorough review of MHI's publicly disclosed defense product portfolio reveals a wide array of conventional military hardware. This includes advanced fighter aircraft (F-2, F-15J), naval vessels (Mogami-class frigates, destroyers, submarines), helicopters (SH-60K), torpedoes (Type 12), and various guided missile systems, such as the PATRIOT surface-to-air missile and air-to-ship missiles (AAM-5, ASM-2).[4]

Despite this extensive involvement in the conventional arms industry, there is no evidence within the available research to suggest that MHI develops or produces any weapons that fall under the specific definitions of the prohibited categories listed in §3a. Authoritative reports from civil society organizations that monitor the production of such weapons, such as PAX and the Cluster Munition Coalition, do not name MHI as a producer of cluster munitions or their components.[5] Therefore, based on the public record, MHI does not appear to be in breach of this specific and explicit part of the Guideline.

## Exposure to Thermal Coal Criteria (§3(2))

The Guideline in §3(2) allows for the observation or exclusion of "mining companies and power producers" that either derive 30% or more of their revenue or operations from thermal coal, or exceed absolute thresholds for annual coal extraction (20 million tonnes) or coal-fired power capacity (10,000 MW).[31]

MHI's role in the coal value chain is that of a technology and equipment provider, not an owner or operator of coal assets. The company designs and constructs highly efficient steam power plants, manufactures critical components like ultra-supercritical pressure boilers and coal pulverizers, and develops advanced systems such as Integrated Coal Gasification Combined Cycle (IGCC) power plants.[9] MHI's own materials state its capability to supply equipment optimized for all varieties of coal, from high-grade anthracite to low-grade lignite.[11]

A literal and strict interpretation of the Guideline's text indicates that MHI does not meet the criteria for exclusion. It is neither a "mining company" nor a "power producer." This highlights a potential gap in the Guideline's scope, as it primarily targets the asset owners and operators rather than the technology enablers who are indispensable to the industry's existence and expansion. While MHI's business is fundamentally intertwined with and enables the thermal coal sector, it does not technically fall under the specified company types in §3(2).

However, §6 of the Guidelines empowers Norges Bank to conduct "forward-looking assessments" and consider a company's transition plans.[31] MHI presents a compelling case in this regard. The company has established a major corporate strategy, "MISSION NET ZERO," which commits to achieving carbon neutrality in its operations and value chain by 2040.[42] A cornerstone of this strategy is the development and commercialization of decarbonization technologies, particularly Carbon Capture, Utilization, and Storage (CCUS). MHI is a global leader in this field and is actively deploying its technology at coal-fired power plants. A recent contract to build Japan's largest carbon capture facility at the Tomato-Atsuma coal power station is a prime example of this strategy in action.[43] This positions MHI in a complex dual role: a historical enabler of coal-based emissions and a key future provider of technology intended to mitigate those emissions.

# Analysis of Conduct-Based Risk (Guideline §4)

This section assesses MHI's corporate conduct against the criteria in Section 4 of the Guidelines, which permit observation or exclusion where there is an "unacceptable risk" that a company contributes to or is responsible for specified norm violations.[31]

## Gross Corruption or Other Gross Economic Crime (§4g)

Guideline §4g targets companies where there is an unacceptable risk of involvement in "gross corruption or other gross economic criminalit_y_".[31] The assessment of MHI reveals a pattern of documented incidents that suggests a material risk in this area. These incidents are not confined to a single event but span different time periods, geographical regions, and types of misconduct.

1. **Thailand Bribery Case (Charged 2018):** In July 2018, Japanese prosecutors charged

former executives of Mitsubishi Hitachi Power Systems (MHPS), a subsidiary of MHI, with bribery. The case involved a payment of 20 million Thai baht (approximately $600,000) in 2015 to a local public official to facilitate the unloading of equipment for a thermal power plant project in Thailand. The funds for the bribe were illicitly generated by issuing a fictitious work order to a local contractor. MHPS had initiated an internal investigation after a whistleblower report and subsequently reported the matter to prosecutors.[13] This is a clear and admitted case of bribery to a foreign official.

2. **African Development Bank Reprimand (2021):** In March 2021, the African Development Bank (AfDB) issued a formal "Letter of Reprimand" to MHI for sanctionable practices. The AfDB's investigation concluded that MHI had engaged in "misrepresentation" during the tender and contract implementation for the Abu Qir 1300 MW Steam Power Project in Egypt, which was partially financed by the bank.[14]
3. **U.S. Antitrust Violations (Plea Agreement 2013):** In 2013, MHI entered into a plea agreement with the United States Department of Justice. The case involved charges of bid-rigging, price-fixing, and other horizontal restraints of trade.[12] This demonstrates involvement in serious economic crime in a major market.

These distinct events, occurring in Asia, Africa, and North America, establish a track record of integrity failures. While MHI has implemented a formal "MHI Group Global Code of Conduct" that explicitly prohibits bribery and corruption [44], along with a specific anti-bribery policy [47] and a whistle-blowing system [48], the recurrence of such incidents raises questions about the effectiveness of its compliance culture and internal controls. The pattern suggests that the risk of future norm violations may be "unacceptable" as defined by the Guidelines, moving beyond isolated historical events to indicate a potential systemic weakness.

## Gross or Systematic Human Rights Violations (§4a)

Guideline §4a applies to companies where there is an unacceptable risk of contribution to "gross or systematic human rights violations".[31] For MHI, the most significant risk under this clause relates to unresolved historical issues of forced labor.

During Japan's colonial rule of the Korean Peninsula (1910-1945), MHI utilized forced labor. In a series of landmark rulings, most notably in 2018 and again in 2023, the Supreme Court of South Korea ordered MHI to pay compensation to the victims or their families.[15] The court determined that the 1965 treaty normalizing relations between Japan and South Korea did not extinguish the rights of individuals to seek redress for what it termed "acts of illegality against humanity" linked to Japan's colonial occupation. MHI, consistent with the position of the Japanese government, has refused to comply with these rulings, maintaining that all compensation issues were settled by the 1965 treaty.

This refusal to provide remedy transforms a historical wrong into a contemporary ethical issue. From the perspective of the UN Guiding Principles on Business and Human Rights—which MHI's own Human Rights Policy explicitly references [49]—the responsibility to respect human rights includes providing for and cooperating in remediation for adverse impacts. By actively refusing to comply with the highest court's decision in the country where the harm occurred, MHI is failing in its responsibility to provide remedy. This ongoing failure could be interpreted as a continuing violation of the victims' rights, thereby creating a material risk under Guideline §4a.

Regarding current operations, there is no specific evidence in the provided materials of ongoing, systematic human rights abuses within MHI's direct operations or its industrial supply chains. The company has a formal Human Rights Policy and has established a grievance mechanism through the Japan Center for Engagement and Remedy on Business and Human Rights (JaCER).[49] However, the company's handling of the historical forced labor issue casts a significant shadow over its stated commitment to these principles.

## Sale of Weapons to States in Armed Conflict (§4c)

Guideline §4c allows for exclusion for the "sale of weapons to states in armed conflicts that use the weapons in ways that constitute serious and systematic breaches of folkerettens regler for stridighetene (international law's rules for hostilities)".[31] This sets a very high threshold, requiring not only a sale to a state in an armed conflict but also evidence of that state's systematic violation of international humanitarian law in its use of such weapons.

Japan has historically maintained a strict policy against arms exports, but this has been significantly relaxed in recent years. MHI, as Japan's largest defense contractor, is a primary beneficiary of this policy shift and is actively pursuing international sales.[51]

| Customer Country | Equipment/System | Contract Status | Geopolitical Conflict Assessment |
|---|---|---|---|
| **Australia** | 11 Upgraded Mogami-class frigates | Preferred bidder selected (2025) | Australia is not currently engaged in an armed conflict that would trigger |

| | | | | |
|---|---|---|---|---|
| | | | Guideline §4c. It is a key U.S. ally participating in regional security operations. | |
| **Philippines** | Air defense radars (by Mitsubishi Electric) | Delivered (2020) | The Philippines faces internal security challenges and maritime disputes but is not engaged in an international armed conflict where systematic breaches of IHL are documented. | |
| Data sourced from.[16] | | | | |

The analysis of MHI's current and prospective defense customers indicates that this clause is not currently breached. Its largest and most significant export contract is with Australia, a stable democracy and strategic partner.[16] While MHI has business interests (non-defense) in Middle Eastern countries like Saudi Arabia and the UAE [56], there is no evidence of defense sales to these nations, which are involved in regional conflicts. The risk associated with §4c is therefore best characterized as emerging rather than realized. As MHI expands its global defense footprint, particularly into regions like Southeast Asia [17], its customer portfolio will require continuous monitoring to ensure compliance with this guideline.

## Serious Environmental Damage & GHG Emissions (§4e, §4f)

Guidelines §4e and §4f address unacceptable risks of contribution to "serious environmental damage" and "unacceptable" levels of greenhouse gas (GHG) emissions, respectively.[31] As a major manufacturer of equipment for fossil fuel-based power generation, MHI's products have historically been a significant source of global GHG emissions.

However, the company has made a clear and strategic pivot towards decarbonization. Its "MISSION NET ZERO" declaration commits the entire MHI Group to achieving carbon neutrality by 2040, a decade ahead of the Japanese government's national target.[42] This is not merely a public relations statement but is backed by substantial investment in and a strategic focus on transition technologies. MHI is a global leader in CCUS technology, hydrogen-ready gas turbines, and ammonia combustion solutions.[20]

The credibility of this transition plan is recognized by external bodies. The Climate Action 100+ initiative, which assesses the world's largest corporate emitters, has evaluated MHI and found that it meets all criteria for its long-term (2036-2050) and medium-term (2028-2035) GHG reduction targets, including coverage of Scope 1, 2, and relevant Scope 3 emissions.[61] This external validation, combined with the centrality of decarbonization solutions to MHI's future business strategy, serves as a powerful mitigating factor. Under the provisions of Guideline §6, which allows Norges Bank to consider forward-looking assessments and transition plans, MHI's proactive and technologically advanced approach to decarbonization likely precludes exclusion under §4f, despite its historical and ongoing contribution to emissions from the use of its products.

# Synthesis and Final Risk Categorization

## Aggregation of Findings

The comprehensive assessment of Mitsubishi Heavy Industries, Ltd. against the GPFG Guidelines reveals a complex and multifaceted risk profile. A synthesis of the findings requires weighing the significant negative factors against notable positive and mitigating elements.

**Negative Factors:**

- **Pattern of Gross Corruption (§4g):** The most acute and least ambiguous risk stems from a documented pattern of corruption and economic crime. Confirmed incidents of bribery in Thailand, misrepresentation in Egypt, and price-fixing in the United States indicate a recurring failure of compliance and integrity controls that poses an "unacceptable risk" of future violations.[12]

- **Unresolved Human Rights Violations (§4a):** The company's ongoing refusal to provide remedy for wartime forced labor, in defiance of rulings by South Korea's Supreme Court, constitutes a significant and continuing ethical breach. This failure to address a past gross human rights violation represents a material conduct-based risk.[15]
- **Nuclear Proliferation Risk (§3a):** MHI's deep involvement in dual-use nuclear fuel cycle technologies, such as uranium enrichment and reprocessing, creates a significant interpretive risk under the "central components" clause for nuclear weapons. While not a direct producer of warheads, its capabilities are foundational to weapons proliferation pathways.[8]

**Positive and Mitigating Factors:**

- **Absence of Explicitly Banned Products (§3a, §3(2)):** The company does not produce weapons explicitly named in the Guidelines, such as cluster munitions.[6] It also does not technically meet the definition of a "mining company or power producer" under the thermal coal criteria, though it is a key enabler of that industry.[11]
- **Credible Decarbonization Strategy (§4f, §6):** MHI's "MISSION NET ZERO" commitment is ambitious, technologically credible, and central to its corporate strategy. Its leadership in CCUS, hydrogen, and ammonia solutions is a powerful mitigating factor that aligns with the forward-looking considerations permitted by the Guidelines.[42]
- **Formal Governance Structures:** MHI has established formal policies and governance structures addressing human rights, anti-corruption, and employee health and safety, including a global code of conduct and a whistle-blowing mechanism.[47] While the effectiveness of these is challenged by the documented conduct failures, their existence provides a framework for engagement and improvement.

## Justification of Final Category

The final risk categorization must balance these competing factors. The product-based risks, while serious, are subject to significant interpretation by the Council on Ethics. Whether MHI's dual-use nuclear technology constitutes "central components" or whether its role as a coal industry "enabler" violates the spirit of the Guidelines are policy questions that may not result in a definitive breach determination.

The conduct-based risks, however, are more concrete and compelling. The pattern of corruption is well-documented and points to an "unacceptable risk" of future incidents. The handling of the forced labor issue demonstrates a current failure to provide remedy for a past gross human rights violation. These issues are sufficiently severe to preclude an "Acceptable Risk" rating.

However, placing the company in the "High Risk" or "Exclusion Candidate" categories may be premature. Guideline §6 allows Norges Bank to consider whether active ownership might be a more suitable tool than exclusion, particularly when a company's activities also align with long-term sustainable development goals. MHI's pivotal role in developing and deploying technologies essential for the global energy transition—a key strategic priority for responsible investors—is a compelling argument for engagement over exclusion. The company's formal governance structures, though imperfect, provide avenues through which shareholder influence can be exerted to demand improvements in compliance and human rights remediation.

Therefore, the most appropriate categorization is one that acknowledges the serious, documented risks while also recognizing the potential for positive change and the company's significant contribution to climate solutions.

## Final Risk Category: 3 - Moderate Risk

This final categorization is justified on the basis that Mitsubishi Heavy Industries, Ltd. presents clear, documented, and significant conduct-based risks that are inconsistent with the ethical norms of the Fund. The recurring instances of corruption and the unresolved historical human rights claims create a risk profile that is demonstrably above "Acceptable." The company is not categorized as "High Risk" or an "Exclusion Candidate" primarily because of the powerful mitigating factor of its credible and strategically central role in global decarbonization, a consideration explicitly permitted by the Guidelines. A "Moderate Risk" rating signals that the company's conduct requires remediation and that its activities warrant heightened scrutiny. This recommendation implies that MHI should be placed under formal observation or be the subject of intensive and targeted shareholder engagement aimed at strengthening its compliance culture, resolving the forced labor claims, and ensuring its business practices align with the fundamental ethical norms espoused by the Fund.

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