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## **Update on Investigation into Improper Quality Control Practices and Implementation of Reform Roadmap (First Report)**

**TOKYO, October 1, 2021** – [Mitsubishi Electric Corporation](https://www.mitsubishielectric.com) (TOKYO: 6503) announced today the findings of the report by an Investigative Committee of external experts (Chaired by Hiroshi Kimeda, Partner (Attorney-at-law), Nishimura & Asahi, announced on July 2, 2021) into the non-compliance of third-party certification of electromagnetic switches manufactured by the company's Kani Plant of Nagoya Works (Kani City, Gifu Prefecture, announced on May 7 and July 21) and the improper inspection practices of HVAC and other products for railcars manufactured at Nagasaki Works (Togitsu Town, Nishisonogi District, Nagasaki Prefecture, announced on June 30), as part of the investigation it has been tasked with in relation to incidents involving quality-related improper practice at Mitsubishi Electric. Mitsubishi Electric takes the Investigative Report seriously and after deeply reflecting on the findings, at today's Board of Directors Meeting, the Board discussed and approved the company's plan for reform as well as three areas of reform (quality assurance, organizational culture and governance) including measures to prevent recurrence. The details are as follows:

- 1. Quality assurance.** A dedicated Corporate Quality Assurance Reengineering Group reporting to the CEO will be established, and will be responsible for establishing a new quality assurance system led by head office, and sharing knowledge and providing flexible support across business divisions. Company-wide measures will be implemented to reconstruct the control function, address technology and resource issues, and re-foster an awareness of quality compliance. In addition, in April 2022, the company will appoint a Chief Quality Officer (CQO) from outside the company, who will lead the Corporate Quality Assurance Reengineering Group.
- 2. Organizational culture.** As part of the company-wide reform project "Team Sousei (Creation)", Mitsubishi Electric will invite employees who have ideas on reforms to join the team and come up with specific proposals for the formulation of an action plan to create a new Mitsubishi Electric. At the same time, the company will reform the human resources system by breaking down the closed organizational culture, reforming the management team itself, and supporting middle management and front-line workers.

**3. Overall governance of the company.** To strengthen the company's management oversight functions and to realize sustainable and mid- to long-term growth of corporate value, Mitsubishi Electric will push forward with reform of the Board of Directors. Furthermore, a Governance Review Committee, comprised of external experts such as lawyers, will be established to identify problems and provide improvement recommendations as part of efforts to assess the company's internal control and governance system, as well as determining the management accountability of the company's Executives Officers and Board Directors.

In addition, the investigation into quality practices at all of the company's manufacturing sites and plants (all 22 facilities) will continue, and the company plans to report roughly every three months on the findings of the investigation and progress and developments regarding the steps the company is taking. The company aims for the investigation to be completed by April 2022 and will then proceed with investigations into its group companies. As a result, today's announcement is the first report regarding the investigation results of Kani Plant, Nagoya Works and Nagasaki Works and the company's roadmap for reform based on these findings. Investigations into the company's manufacturing facilities and plants will continue. Mitsubishi Electric will implement and further develop its three areas of reform including measures to prevent recurrence, taking those future investigation results into account.

Mitsubishi Electric would like to reiterate its sincere apologies to all customers, valued stakeholders, and broader society for the impact of these incidents.

The company takes the findings and recommendations of the report very seriously and is committing to work as one Mitsubishi Electric Group to both prevent future recurrence and on reform so that the company can regain trust.

### **1. Overview of the Investigative Committee's Investigation results and the proposed roadmap for reform**

In response to the discovery of improper inspection practices concerning HVAC and other products for railcars manufactured at Nagasaki Works, on July 2, 2021, the company established an Emergency Response Division headed by the CEO and an Investigative Committee chaired by an external attorney. The Investigative Committee was also tasked with investigating the discrepancies found in third-party certifications and registrations of electromagnetic switches manufactured at the Kani Plant of Nagoya Works, which had been discovered prior to the commission of the investigation, as well as investigating the facts and determining the underlying causes of any other improper incidents at a company-wide level, and formulating and recommending measures to prevent recurrence.

The investigation report that the company received today details the findings relating to previously reported discrepancies found in third-party certifications and registrations of electromagnetic switches

manufactured at Kani Plant of Nagoya Works and improper inspection practices concerning HVAC and other products for railcars manufactured at Nagasaki Works.

In addition to the results of the investigations at the Kani Plant of the Nagoya Works and the Nagasaki Works, the report also outlines three other cases, all of which have already been made public: the inadequacy of inspection equipment discovered at the Air-Conditioning & Refrigeration Systems Works, the non-implementation of some inspections discovered at the Power Distribution Systems Center, and the improper practice discovered at the Fukuyama Works when conducting regular factory audits.

The Investigative Committee began by conducting a survey of all employees in Japan. Subsequently, at Kani Plant and Nagasaki Works, the Committee carried out interviews and inquiries with relevant parties, conducted forensic investigations into executives and other relevant parties at these sites, as well as verifying the consistency of responses to the survey with objective data sources.

A summary of the investigation results of Kani Plant of Nagoya Works and Nagasaki Works is shown in Table 1. At Kani Plant of Nagoya Works, a total of 6 cases (inclusive of 2 cases already announced) have been identified, and at Nagasaki Works, a total of 12 cases (inclusive of 8 cases already announced) have been discovered.

**Table 1 Main investigation results from Kani Plant of Nagoya Works/ Nagasaki Works and Mitsubishi Electric’s Response**

(1) Kani Plant of Nagoya Works

\*Incident 1 was reported on May 7. Incident 3 was reported on July 21. Incident 2 was discovered through subsequent investigations.

\*For Incidents 1, 2 and 3, it has been confirmed that discrepancies were hidden through the presentation of false diagrams etc. during regular UL inspections (FUS: Follow-Up Service).

	<b>Incidents of improper practice</b>	<b>Overview and number of units shipped</b>	<b>Mitsubishi Electric’s response</b>
1	For some parts of electromagnetic switchgear (T series) resin material was used which was different from that certified by UL.  (Announced on May 7)	In some model parts (tangential carriers), different resin material was used from that which was originally certified and registered by UL.  Shipping period/number of units: January 2013 - April 26, 2021  Total approximately 2.19 million units	As an immediate countermeasure, all production and shipments of these products were stopped. UL certification was revoked on May 15 this year, and production was resumed on May 18 for products without UL certification.
2	Inconsistency of electromagnetic switchgear (N Series*) with UL certification	In the past, some subcontracted factories used materials that were not registered with UL.	The company started correcting the inconsistencies with UL certification from

	*This is the old model of T series and production is currently stopped (except for certain models)	Shipping period: 1994 - 2016 (Some of the models are still in production)	around 2008. Even though all corrections had not been completed, the production of the N series was stopped (except for some models) together with the launch of the T series in 2012. In early August, the company made a request to UL for model changes, as it was discovered that there were inconsistencies with UL certification resulting from errors and missed revisions in some models in the N series that are still being produced.
3	For manual motor starters, material was used which was different from what was originally certified and registered by UL. (Announced on July 21)	In some parts, material other than those registered under UL certification were used.  Shipping period/number of units: April 2013-April 2021 Total 140,000 units	After the UL certification of parts used in this product was removed, the production and shipping of the UL certified products were stopped before the discrepancy noted in the left column was discovered. Currently, products are manufactured without the UL certification label.

※In addition to the incidents listed in the table above, three other cases are mentioned in the footnote of the Investigative Committee Report: issues relating to part of shipment inspections not being conducted for some models of electromagnetic contactors, discrepancies in the labeling method for classification based on operating time of thermal relays with JIS standards, and discrepancies in the open circuit voltage values of some models of electromagnetic contactors with JIS standards.

## (2) Nagasaki Works

### a. HVAC (Heating, Ventilation and Air Conditioning systems) for railcars

Incidents 1-5, 7 and 9 were reported on June 30. Part of Incident 4 and Incidents 6 and 8 were discovered in subsequent investigations.

In each of the incidents, improper inspection records were created. For the cooling capacity test and cooling power consumption tests, it was confirmed that programs were created and used to automatically produce inspection records of the commercial tests.

	<b>Incidents of improper practice</b>	<b>Overview and number of shipped units</b>	<b>Mitsubishi Electric's response</b>
1	Commercial test: Cooling capacity test and cooling power consumption test (Announced on June 30)	Test was not conducted under the temperature conditions of JIS E 6602, but under the normal factory temperature. Number of units shipped: 73,986 units/93 customers	As soon as the improper practices were discovered, the shipment of the relevant products was stopped. The test method has been revised to comply with the specifications required under contracts with customers as well as the JIS Standards and the shipment has been resumed.
2	Commercial test: Heating capacity test and heating power consumption test (Announced on June 30)	Test was not conducted under the temperature conditions specified in contracts, but under the normal factory temperature, or was not conducted at all. Number of units shipped: 8,621 units/5 customers	For incidents that had already been announced before the most recent investigation, the company is having discussions with its customers separately regarding products that had already been shipped.
3	Commercial test: Waterproof test (Announced on June 30)	The company substituted the sprinkling test for finished products specified in JIS E 6602 with other test methods including a watertight box frame test. Number of units shipped: 69,522 units/93 customers	As for the incidents that have been discovered by the most recent investigation, the company will begin reaching out to its customers shortly.
4	Commercial test: Insulation resistance test and voltage resistance test (Partially announced on June 30)	Part of the insulation resistance test and voltage resistance test specified in JIS E 6602 or contracts was not conducted. Number of units shipped: 8,863 units/11 customers	
5	Commercial testing: Shape and dimension inspection (Announced on June 30)	The shape and dimension inspection specified in contracts was not conducted. Number of units shipped: 65,659 units/93 customers	
6	Development performance testing: Cooling capability test	(a) Even if the result was 95% or higher but less than 100% of the rated cooling capability, the product was determined to have passed. Number of units shipped: 17,121 units/52 customers * The pass/fail threshold was changed to	

		<p>100% or higher in 2011 from between 95% and 100%.</p> <p>* Even in cases where the product was determined to have cooling capability between 95~100% when tested against the median range of temperature and humidity conditions specified by JIS E 6602, it has been later shown that these products had 100% or higher rated capability within the engineering tolerance range of temperature and humidity conditions under JIS specifications.</p> <p>(b) Cooling capacity and some of the parameters used as the basis for calculating the cooling capability in inspection reports were different from the actual figures.</p> <p>Number of units shipped: 355 units/1 customer</p>	
7	Development performance testing: Cooling overload test (Announced on June 30)	<p>Cooling overload test specified in JIS E 6602 was not conducted.</p> <p>Number of units shipped: 18,860 units/56 customers</p>	
8	Development performance testing: low temperature cooling test	<p>Test results determined by a shorter operating time than specified in JIS E 6602.</p> <p>Number of units shipped: 18,860 units/56 customers</p>	
9	Development performance testing: Vibration test (Announced on June 30)	<p>The company substituted accelerated vibration measurement results with the vibration test specified in JIS E 4031.</p> <p>Number of units shipped: 18,860 units/56 customers</p>	

\*The number of units shipped in the table above is the maximum possible number and the company has not been able to confirm whether compliance with the JIS Standards was specified in each contract.

\*In addition to the incidents listed in the table above, two other incidents are mentioned in the footnote of the Investigative Committee Report: partially not conducting tests in accordance with JIS E 5006 and insulation resistance and voltage resistance tests that were conducted under conditions different from those specified in contracts.

b. Air Compressors for railcars

Incident 1 was reported on June 30.

	<b>Incidents of improper practice</b>	<b>Overview and number of shipped units</b>	<b>Mitsubishi Electric's response</b>
1	Development performance test: use of test results for the old model for the new model (Announced on June 30)	In the development performance test on the new model, the test results for the old model were used without customers' approval. Number of units shipped: 1,002 units/18 customers	Following the provision in JRIS E 5002, the company has revised a policy that when test results for old models are used, it will ensure that customers' approval is obtained along with a technical explanation.  *The use of test results for old models is allowed under JRIS E 5002 (subject to customers' approval), which was established in 2013.

c. Other findings

The report confirms that no improper quality practices had taken place with regard to the platform doors and video information systems manufactured by the Facility Systems Department of Nagasaki Works.

The report outlines both direct and underlying causes of the incidents at Kani Plant and Nagasaki Works as well as eight recommendations based on these findings.

Direct causes:

- The concept of thorough quality assurance through adherence with specified protocols (for example, appropriate quality inspections in strict adherence with the standard to ensure that the product complies with the standard) was not deeply ingrained among employees, as there were cases of justification based on the mentality that “there is no problem as long as there is no actual quality issue”.
- The Corporate Quality Management Department, which was supposed to play a control function, lacked independence due to being under the control of the manufacturing department. It also lacked sufficient resources in both quality and quantity.
- Middle management (especially section chiefs who are close to the manufacturing sites) was extremely busy and could not act as an intersection between the manufacturing sites and the management.

- There was a disconnect between the head office/corporate function departments\* and the manufacturing sites (the manufacturing sites did not think that head office quarters/corporate function departments would support the manufacturing sites and work together with them to solve problems).

*\*The term "Head office/Corporate" hereinafter refers to divisions other than factories and plants, i.e., Corporate Management Divisions, Corporate Staff Groups, and Divisions at head office of business groups.*

Underlying causes:

- An inward-looking, closed organizational culture with manufacturing sites, namely plants and works, working in siloes
- Difficulty in achieving company-wide initiatives in a highly independent business unit system and employees disincentivized from pursuing measures that would increase costs
- While management strived for a quality-first approach, there were issues regarding the efforts made to achieve this, including a lack of the right environment and insufficient measures to communicate the management's intent to the employees, as well as quality inspection measures becoming a mere routine

Recommendations by the Investigative Committee:

- ① Ingrain a company-wide understanding and correct perception of quality (ensuring quality through adherence with protocols)
- ② Check and review processes such as procedure manuals from a third party's perspective
- ③ Strengthen the quality control division by ensuring organizational independence from the manufacturing division and securing sufficient quality and quantity of human resources to enable greater authority when dealing with the manufacturing division
- ④ Support and strengthen middle management, especially general managers and section chiefs on the manufacturing sites (ensuring appropriate workload, and conducting training/education based on roles and responsibilities)
- ⑤ Bring the head office/corporate function departments and the manufacturing sites closer (overhauling a system within business divisions at head office which supports the manufacturing sites, encouraging greater personnel exchange between the manufacturing sites and head office/corporate functions)
- ⑥ Encourage affiliation with the company rather than the existing strong affiliations at a plant/works level (Experience at other plants as part of career path, using middle management to reform local sites through the strengthening of links between the manufacturing sites and management)
- ⑦ Implement measures based on the business unit system (Separate management of performance review of investment in quality improvement, appropriate resource deployment based on holistic assessment of business performance)

- ⑧ Demonstrate management's resolve in strengthening quality compliance (Continue strengthening the quality control division, including human resources, as well as continuing inspection activities which are backed by sufficient resources.)

While the causes and recommendations outlined in the report are in relation to Nagasaki Works and the Kani Plant of Nagoya Works, the direct and underlying causes as well as recommendations are wide-ranging across areas of quality, organizational culture and governance, therefore Mitsubishi Electric recognizes that there may be much that can be applied across the organization.

The company will continue the investigations at the Kani Plant and the Nagasaki Works, and in addition to measures developed based on the results of these investigations to prevent recurrence at each individual site, the company recognizes the need to develop systems and measures to address quality, organizational culture, and governance issues at a company-wide level, as shown in Figure 1 and implement them from October onwards.

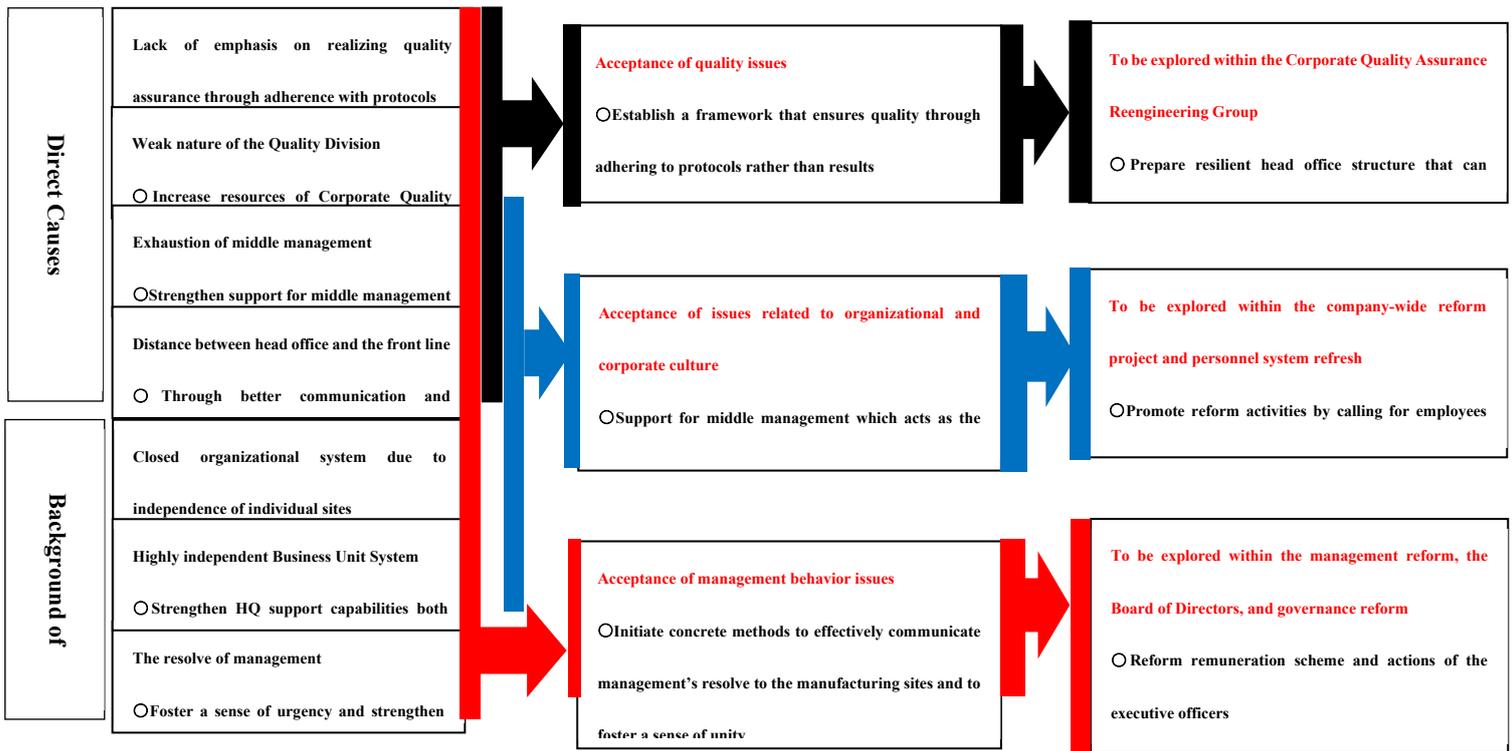


Figure 1: Summary of measures to prevent recurrence in response to the Investigative Committee's suggestions

## **2. Roadmap for quality and culture reform**

- (1) Creating a new company-wide structure for quality assurance led by the company head office -  
Establishing a dedicated Corporate Quality Assurance Reengineering Group

As of October 1, 2021, the Corporate Quality Assurance Reengineering Group will be established under the direct control of the CEO, and will be responsible for implementing measures to prevent recurrence, and lead the efforts to strengthen quality governance throughout the group companies. In April 2022, Mitsubishi Electric will appoint an executive officer in charge of quality (CQO) from outside the organisation to head the Corporate Quality Assurance Reengineering Group. The company has set aside 30 billion yen over the next two years for investments necessary for the development of infrastructure related to the quality assurance system, etc., and will make investments as quickly as possible based on priority.

### ① Establishment of an effective quality internal control and governance system

- The Corporate Quality Assurance Reengineering Group will take over the quality assurance promotion function previously with the Corporate Total Productivity Management & Environmental Programs Group, and the Quality Assurance Department at each manufacturing plant will now be reporting to the Corporate Quality Assurance Reengineering Group, thus consolidating the functions and authority for quality assurance (Figure 2). By doing so, the company will strengthen the control function of the head office and rebuild a more effective quality assurance system in cooperation with the field-level internal control function of the quality control section of each manufacturing plant.
- The status of the activities of the Corporate Quality Assurance Reengineering Group will be reported to the Executive Officers' meeting on a regular basis, and the management team will flexibly review the support and control functions to prevent the recurrence of improper quality issues at the management level.
- Regarding the effectiveness of the company's governance system relating to quality compliance, in addition to the existing auditing activity of the audit department, the Corporate Code of Conduct Committee, which has been commissioned by the Executive Officers' meeting to implement its work, will be given a new function of monitoring the effectiveness of the Corporate Quality Assurance Reengineering Group. The Committee will provide regular status reports to the Executive Officers' meeting and the Board of Directors, and oversee and assess using the Plan-Do-Check-Act (PDCA) to make improvements. In addition, taking on board the assessment and recommendations of the Governance Review Committee (mentioned later in this announcement), the company will further strengthen the governance function of the executive officers.

### ② Priority measures of the Corporate Quality Assurance Reengineering Group

The company will focus on the measures below as it establishes a quality assurance system led by the

company head office and provides flexible support and knowledge sharing across business divisions. In addition, from April 2022, the company will pursue drastic change without being bound by conventional ways of thinking and doing things by appointing a Chief Quality Officer from outside the company.

- Leverage the leadership of the corporate function department and develop a robust quality assurance system that can be adapted to each site
- Strengthen the authority and resources of quality managers, as well as technical support to streamline the development and design process, and create an environment in which middle management (especially general managers and section chiefs at the manufacturing sites) can perform as expected in their roles.
- In order to achieve "protocol-oriented quality assurance":
  - Accelerate digitalization, such as centralized management of quality-related information and automated collection of test and evaluation data, and;
  - Foster a high level of quality compliance awareness among all employees, including the management.

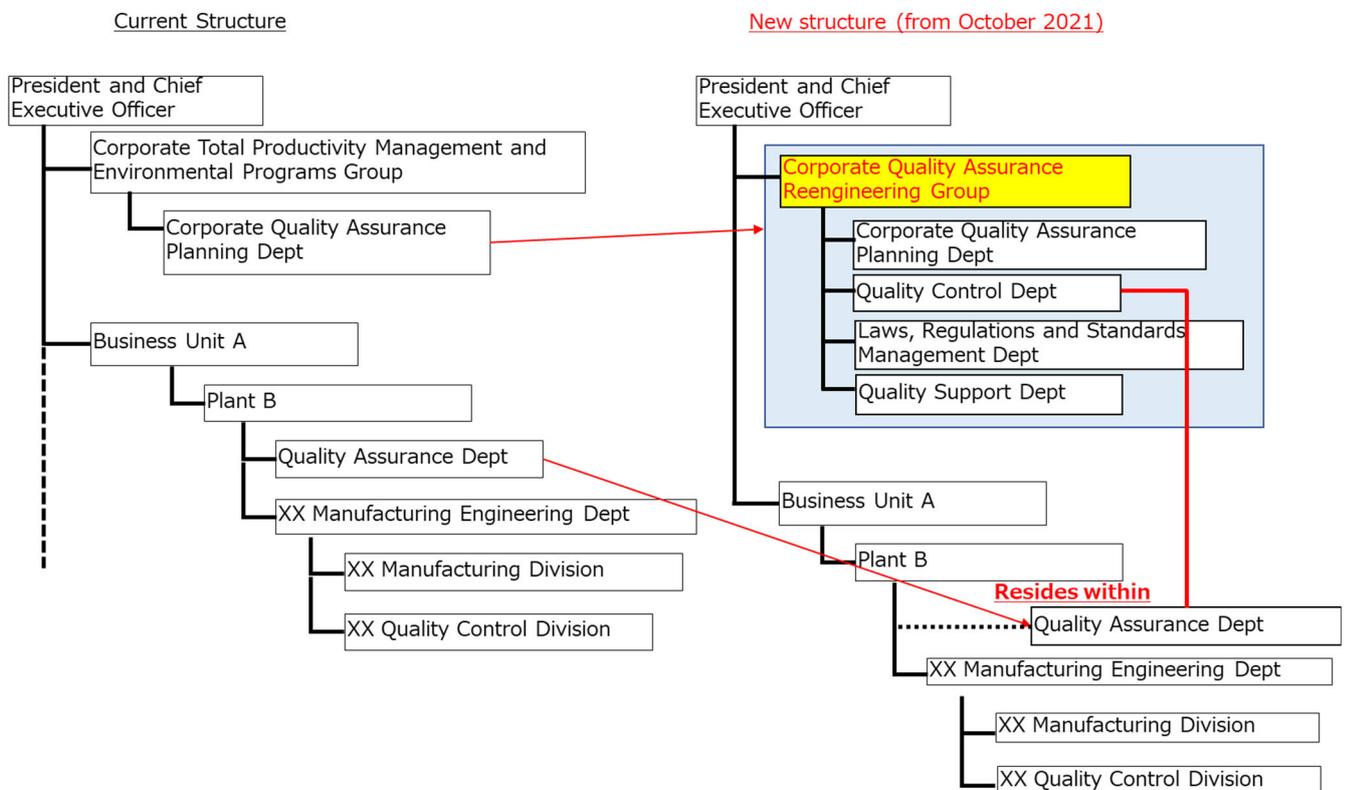


Figure 2: Structure of the Corporate Quality Assurance Reengineering Group

③ The following is an overview of the operations of each department established within the Corporate Quality Assurance Reengineering Group.

- Corporate Quality Management Department
  - Oversee the overall quality reform activities and roll-out company-wide quality audits and quality assurance activities
  - Audit to confirm consistency of customer specifications, shipped products, and actual inspections
  - Detect quality risks at each step in the tender and development processes and trigger halting of shipments in the event that an issue is found (Third party control of business units and manufacturing sites)
  
- Laws, Regulations and Standards Management Department
  - Manage laws, regulations and official standards related to quality
  
- Corporate Quality Assurance Planning Department
  - Plan and follow up on all measures related to quality reform
  - Strengthen and promote education about quality compliance
  - Rotate quality assurance personnel and develop training plans
  - Strengthen third-party control functions through the enhancement of the technical capabilities of the quality assurance division
  - Determine the appropriate level of investment in evaluation / inspection equipment and human resources to ensure quality (a third party control function over the business units)
  
- Corporate Quality Supporting Department
  - Support with problem solving in the quality assurance protocols at each plant etc. or group company
  - Support for activities at each plant etc. or group company, including sharing quality issues, cooperation with the Investigative Committee, investigating the causes of improper practices when they are discovered, and formulation of measures to prevent recurrence
  - Accelerating the construction of a system to confirm consistency between customer specifications, shipped products, and actual inspections
  - Accelerating the construction of an automated inspection and data tampering prevention system through digitalization

(2) Company-wide measures for quality assurance reform

As part of company-wide measures to reform the quality assurance system for our products, the Corporate Quality Assurance Reengineering Group will take the lead in implementing the following

measures: restructuring the control function, addressing issues relating to technical capabilities and resources, and fostering a renewed level of awareness about quality compliance.

In particular, as part of digitalization efforts, Mitsubishi Electric will promote measures to enhance quality, such as strengthening the identification of customer specifications and shipping standards, and preventing the falsification and fabrication of test and evaluation data. In addition, by establishing a new "Quality Support Unit," the head office will strengthen its support for problem solving at the sites. In addition to company-wide measures, the company will strategically plan and implement personnel rotations across products and locations to reduce the adverse effects of assigning employees to fixed, long-term assignments.

#### Restructuring the control function

- ① Creating greater independence and separation in the chain of command for quality assurance from the manufacturing sites

The Quality Assurance Department, which was previously under the control of each manufacturing site, will now report into the Corporate Quality Assurance Reengineering Group, and the chain of command for quality assurance will be separated and independent from each manufacturing site. The Quality Assurance Department will be given the authority to decide the appropriate investment of resources in evaluation and inspection to ensure quality as well as the authority to stop development or production depending on the load status of the site, and to stop shipment depending on the inspection and quality status of the product.

- ② Strengthening of quality assurance functions

The Quality Assurance Departments at each plant, which report to the Corporate Quality Assurance Reengineering Group, will promote the following initiatives from a third-party perspective.

- a. Optimization of the order process

The company will set guidelines to ensure the order process is optimized and will monitor execution closely, such as deciding upon the consistency between the capabilities and quality inspection system of the manufacturing site with the specifications required by customers at the point of order.

- b. Thorough management of changes

At each manufacturing site, the Quality Assurance Department will oversee thorough management of changes to customer contracts and revisions to laws, regulations, and public standards. The Corporate Quality Assurance Reengineering Group will lead consideration of steps such as the introduction of systems to make the status of changes reflected in the certification process and actual products shipped more transparent.

- c. Support for stricter business processes for quality assurance

Members of the Corporate Quality Management Department within the Corporate Quality Assurance Reengineering Group will participate in the review at each hold point in the development and

production process to define more specifically the tasks related to quality assurance. They will evaluate problems that lead to quality risks from a third-party perspective, and if there are any problems, they will make recommendations for corrective action, such as reviewing schedules and systems, to the manufacturing sites and confirm their implementation.

d. Enhancement of quality audits

A dedicated quality audit team will be set up and the team will enhance quality audits through measures such as interviews with on-site personnel and surprise audits to compare the actual shipped products and test data against the standards and specifications on the audit day. The periodical audits by accreditation bodies and the periodical verification specified by laws and regulations carried out will also be subject to enhancement.

e. Solid collection of information on quality issues

Mitsubishi Electric will reinforce the use of its whistle-blowing system to also cover quality related issues internally so that it is fully recognized among and utilized by the employees, and use this system to strengthen the collection of information relating to possible improper quality practices and risks. Specifically, posters and pocket-sized cards will be updated to clearly state that quality issues are also covered, and efforts will be redoubled to ensure each and every employee is fully aware that they can use the whistleblowing system if they have any questions, and that they will be appropriately protected. In addition, Mitsubishi Electric will continue to conduct surveys on improper quality practices and analyze the responses to reduce related risks.

f. Rebuilding the quality management system

Mitsubishi Electric will introduce a Total Quality Management (TQM) system to ensure company-wide quality improvement targets are incorporated into specific activities such as priority issues, measures and control items at each manufacturing site.

Addressing technical capabilities and resources issues

① Strengthen and ensure compliance with laws, regulations and public standards

Quality-related laws, regulations, and public standards that the company has to comply with will be managed centrally. The following points will be reinforced; making the compliance of standardized products and models with laws and regulations more transparent, establishing rules for obtaining information on changes, checking the status of compliance, providing guidance and instructions when issues are identified, and training by experts.

② Enhance quality through IT and digitalization

As part of efforts to digitalize the business, Mitsubishi Electric will promote quality enhancement measures, such as confirming the consistency between customer specifications and shipping standards and preventing the falsification and fabrication of test and evaluation data. Specifically, the company will improve the reliability of data by promoting the automation of testing and inspection records through

digitalization and building a system to centrally manage the acquired results in a database. The company will prioritize investment in infrastructure development for quality assurance systems, etc., from the 30 billion yen to be set aside over two years as a necessary investment for quality, and the company will select and secure pilot sites, and promptly implement the investment in order of priority.

③ Strengthen support for manufacturing sites at head office

- a. Strengthening support to resolve issues at manufacturing sites by setting up a "Quality Support Unit".

The Quality Support Unit will support problem-solving and risk countermeasures of manufacturing sites from the head office end, and look at possible systems where the company laboratories and technical centers help elevate the technological capabilities of manufacturing sites.

- b. Ensure quality control is standardized at the upstream of design by opening up internal access to the company's technological assets

Mitsubishi Electric will promote the use of company-wide technological assets in order to ensure quality control is standardized at the upstream of development and design, hence preventing rework and improving the efficiency of on-site operations. The company will standardize and universalize technological assets, such as design tools, analysis models/data, design guidelines, and various databases, and establish a system to distribute them to development and design sites throughout the company. It will also implement a system to share expensive design and evaluation tools so that they can be utilized at small business sites as well. These measures will be led by the Corporate Quality Assurance Reengineering Group.

④ Training of quality assurance personnel

In order to upskill team members contributing to the strengthening of the quality assurance system, Mitsubishi Electric will conduct additional training courses such as on-the-job training at company technical centers and laboratories as well as skill building. In addition, the corporate departments will secure the necessary budget for expanding planned headcount of quality assurance personnel and actively recruiting experienced talent from outside the company, while at the same time accelerating the improvement of employee mobility, with the Corporate Quality Assurance Reengineering Group leading these measures.

Re-fostering an awareness of quality compliance

Mitsubishi Electric believes that awareness of quality compliance is about sincerely responding to the trust that our customers and other stakeholders place in us by complying with laws and regulations and acting with high ethical standards. The company will further implement the following measures to instill its compliance philosophy "Always Act with Integrity", which was established in June 2021, and ingraining the concept that "quality is guaranteed through adhering to established protocols" among its employees.

① Revitalize personnel rotation

The company will create a human resources map for each manufacturing site, and strategically plan personnel rotation across products and sites, rotating quality assurance personnel between mass production sites and custom production sites.

② Instill awareness of quality compliance among the senior management

Mitsubishi Electric will strengthen activities to develop case studies of improper quality practice, lessons learned, and update on the status of quality compliance across the company in order to foster awareness that the senior management themselves are responsible for promoting quality compliance, transforming their own actions, and setting an example for employees.

③ Quality Compliance Awareness Training

Mitsubishi Electric will create educational content that helps all employees understand that “quality is guaranteed by adhering to established protocols”. The company will create educational content for each function and level to raise awareness of quality compliance among all employees and prevent the incidents from being forgotten.

### **3. Organizational culture reform**

In parallel with the establishment of the Corporate Quality Assurance Reengineering Group as a framework for promoting culture reform, Mitsubishi Electric will strengthen its efforts to reform the company’s organizational culture across the board. The company-wide reform project will kick off in October 2021, with a reform team, consisting of members who have responded to a call to employees from across the company to join, who will deepen discussions on reforming the organizational culture, and in doing so releasing the company from being bound by past practices. At the same time, the company will revamp the personnel system and implement measures to achieve a culture where “employees feel that they can consult with their superiors”, one which “tolerates failures” and one which “fosters collaboration to solve issues through shared information”.

(1) "Team Sousei (Creation)", a company-wide reform project

Mitsubishi Electric believes that it is important to get employees to participate in fundamental management reform and to rebuild the company from the inside out. These employees may have been individuals who had well-considered views on issues and had a will for change, but have up until now been hesitant to express their views or take a step forward in an atmosphere that was difficult to speak up.

To rebuild the company from the inside out, the company will launch a company-wide reform project "Team Sousei (Creation)" in October.

A diverse range of roughly 40 employees will be selected to drive this project following a company-wide call to participate. These are employees who are expected to have strong views about the operation and structure of the organization and how to reform based on dealing with various concrete issues firsthand

at the manufacturing sites as they earnestly engage in their daily work.

Working towards the creation of a new Mitsubishi Electric, the project will start by collecting various opinions from within the company as well as external experts and looking closely at the company's operations from seven perspectives, with the aim of transforming it for the better. Ideally by March 2022, the project team will identify several "core themes" that are most important and urgent for the company, and the team members and the management will work together to formulate concrete proposals and an action plan for reform. After that, the employees and the management will share a concrete roadmap for reform and proceed to the implementation phase.

Through this initiative, the company also plans to address the issues pointed out in the Investigative Committee's report, such as "the insufficient support by senior management for middle management", "the distance and disconnect between the manufacturing sites and the head office/corporate function departments", "the inward-looking organizational culture", and "the highly independent business unit system".

The seven perspectives for identifying issues:

- a "Business and societal issues", "strengths", "change in environment, and "open innovation";
- b "Business unit system", "relationship between head office and manufacturing sites", "division of functions of between business divisions and corporate function departments", and "cooperation between head office and manufacturing sites";
- c "Decision making process". "framework for KPI setting and revision", "speed of information sharing and quality of analysis". "performance evaluation system", and "target management system";
- d "The sharing, permeation and establishment of a purpose, vision, mission and scope", "mechanism for self-change to keep up with change in society or the times";
- e "Making more transparent the capabilities of managerial staff including individual and organizational competence as well as communication skills", "target setting", and "frameworks for skill enhancement and follow-up";
- f "Mobility of personnel and diversity" and "balance between specified employment and general employment";
- g "Revision of corporate and organizational culture" and "how to progress, foster and pass on to the next generation".

(2) Renewal of the Personnel System

The Investigation Committee's report pointed out many issues regarding Mitsubishi Electric's corporate culture and management, which Mitsubishi Electric takes seriously and will renew its personnel systems as follows.

① Overcome the inward-looking organizational culture

- Breaking down walls within the organization through the dynamic promotion of personnel rotation  
In order to break down the walls within the organization, such as those between the manufacturing sites and the head office and those among divisions, business sites, and business units, the company will reinvigorate personnel exchange across organizational boundaries at all levels. The company acknowledges that it will need to change the current situation where employees tend to work in the same place for a long period of time, as not only in the Quality Assurance Division but also in other divisions, as there are few opportunities for technical personnel to be transferred across divisions. Specifically, the company will implement multi-dimensional measures including conducting personnel rotations based on employees' wishes, introducing a personnel rotation system which allows employees to get a wide range of experiences from early stages of their career, and encouraging greater personnel rotation among management-level employees. In this way, the company will thoroughly revitalize everyone from top management to technical personnel, break away from a closed culture and internally assumed norms, promote the development of human resources with diverse experience and a broad perspective, and strongly promote a cooperative and collaborative organizational culture across the entire Mitsubishi Electric Group, transcending departmental barriers.

Under the company-wide transformation project, the company will consider effective measures from the perspective of "creating an environment where employees can realize their own career goals," set KPIs, implement them, and follow up on the measures.

- Breaking down the inward-looking culture by promoting diversity  
One of the possible major attributing factors to the "inward-looking" corporate culture pointed out in the Investigative Committee's report is how Mitsubishi Electric's current senior management team consists of personnel who have progressed through the company and lacks diversity of people with different backgrounds, skills, etc.. By recruiting multiple external personnel to join the company as Executive Officers, the company aims to improve its diversity as well as proactively review internally assumed norms.

In addition, the company will lay the foundations to overcome its inward-looking organizational culture through multifaceted measures such as promoting diversity at all levels and actively hiring mid-career personnel. The company will again under the company-wide reform project consider effective measures, set KPIs, implement them, and follow up on the measures for this area of reform .

② Change in behavior of senior management

- Revamp of remuneration for executive officers as well as change in behavior through coaching  
The current criteria on financial remuneration for executive officers at Mitsubishi Electric do not explicitly include non-financial KPIs such as employee engagement. The company aims to accelerate initiatives to encourage employees to challenge themselves or those which aim for long-term quality

assurance. In order to do this, the executive office remuneration system will be revamped, with the Remuneration Committee considering mechanisms including linking executive officer remuneration with non-financial KPIs that are not about short-term sales or profit, such as employee engagement. Executive officers will also receive coaching provided by external providers. The coaching will have a clear objective to foster a culture in which “employees feel that they can consult with their superiors”, a culture that “tolerates failures” and “fosters collaboration to solve issues through shared information”. Executive officers will start by first changing their own behavior, utilizing, among other things, a 360-degree feedback system.

- Change in the evaluation method and promotion of managers

The current method of performance appraisal, not only of executive officers but also employees, especially those in managerial positions, places a large emphasis on business performance. In the future, similar to executive officers, greater emphasis will be placed on non-financial KPIs in the evaluation of those in managerial positions such as the plant managers, general managers, and section chiefs at manufacturing sites. The company-wide reform project will discuss further what leaders and managers of the business should be like, and feedback from the manufacturing sites will also be considered in promotion and other personnel decisions.

### ③ Supporting middle management and those at the manufacturing sites

At Mitsubishi Electric, it is expected that middle management, in particular those at the section chief level, act as the “heart of the organization”, understanding the direction of the company leadership as well as the reality at the manufacturing sites. It is therefore important that the company takes the issue raised by the Investigative Committee that middle management were too busy and too tired, and had given up on requesting resources they lacked, very seriously. It is important to understand in detail the reality of how those at the section chief level have been under significant burden due to the sheer volume and intensity of work they have been tasked with. Necessary support and a feasible working environment must be provided as a matter of urgency. Initiatives will be strengthened to relieve middle level management from feeling the need to tackle issues by themselves, and to encourage them to act as the intersection, to relay concerns and issues from the manufacturing sites to company leadership and corporate staff, and for that to be acted on.

- Appropriate resource allocation and scope of control

Top leadership of the business including executive officers will immediately take action to understand individual issues regarding the lack of resources at each site, and after deciding which tasks to change or cut, will make appropriate decisions in a timely manner on allocating resources. To address the issue of those at the section-chief level who are under a significant burden, the size of the organization will be adjusted appropriately, and by redistributing some of the responsibilities, the company will aim to set the scope of control at an appropriate level. The company-wide reform project will study

and refine the concrete measures.

- Strengthening communication with the top management

The communication between the CEO and heads of business units with others has been traditionally one-directional towards middle level management and other employees. There have not been enough opportunities provided for the latter to freely express their opinions. With this in mind, the company-wide reform project will consider different approaches to enable multiple channels for the voice of mid-level management and other employees to be heard.

- Two-way dialogue instead of one-way explanation from top management
- Regularly collecting the voices of employees via employee surveys and other means

Mitsubishi Electric will take robust steps to foster a culture in which employees feel that they can consult with their superiors, a culture that “tolerates failures” and one which “fosters collaboration to solve issues through shared information” by revamping its personnel system.

#### **4. Governance Reform**

The report raised a number of areas for improvement within the company's governance practices, starting with a system for timely and appropriate sharing of information with outside board directors. By actively consulting third party expertise as detailed below and as part of efforts to prevent recurrence of improper quality practices, the company will create more opportunities for dialogue between management and outside board directors, reflecting their insights even further. The company will report to the board on progress, taking on appropriate feedback as it proceeds with the reform process. The company will pursue governance reform with the following 2 measures.

##### (1) Strengthening management supervisory function -Board of Directors Reform

In order to examine whether there are areas for improvement relating to the effectiveness of the Board of Directors, the company requested Board Advisors, Inc., a third-party organization, to assess the effectiveness of the Board of Directors of the company. Board Advisors Inc., identified issues to be tackled and improved upon and provided recommendation on actions. During their engagement, which ran from August to September 2021, Board Advisors Inc. identified issues to be tackled and improved upon and provided recommendations on actions.

The summary of the assessment method and process of the third-party organization are indicated in Table 2.

**Table 2 Assessment methods/processes by the third-party organization**

(1) Assessment methods	(2) Target items of Assessment
<ul style="list-style-type: none"> <li>① Review the minutes of the Board of Directors meetings and other documents</li> <li>② Survey of all Directors</li> <li>③ Interviews with all Directors</li> <li>④ Evaluation based on the expertise of the third-party organization</li> </ul>	<ul style="list-style-type: none"> <li>① Composition of the Board of Directors</li> <li>② Support system of the Board of Directors</li> <li>③ Agenda for Meetings of the Board of Directors</li> <li>④ Status of Deliberations at Meetings of the Board of Directors</li> <li>⑤ Contribution of Directors</li> <li>⑥ Activities of the three statutory committees</li> <li>⑦ Monitoring system of the Executives</li> <li>⑧ Response to the improper inspection practices</li> </ul>
(3) Assessment process	
<ul style="list-style-type: none"> <li>① Conduct an assessment by a third-party organization based on (1) Assessment methods and (2) Target items of Assessment</li> <li>② Report on the assessment results on the effectiveness of the Board of Directors based by the third-party organization to the Company’s Board of Directors</li> <li>③ The Company’s Board of Directors conduct discussions on future actions based on above assessment report</li> </ul>	

As a result of the assessment the third-party organization identified issues and recommended actions as follows, which revealed that there is a need for improvement in the effectiveness of the company's Board of Directors in terms of Board functions, Board composition, Board secretariat functions, and the functions of the three statutory committees.

- ① Strengthening the functions of the Board of Directors
  - 1. Review of the agenda for the meetings of the Board of Directors.
  - 2. Presentation of the major direction of corporate strategy by the Board of Directors
  - 3. Ensuring timely and appropriate information disclosure by the Executives to the Board of Directors
  
- ② Review of the composition of the Board of Directors
  - 1. Appointment of an independent outside director as Chairman of the Board of Directors
  - 2. Independent outside directors to make up more than 50% of the Board
  - 3. Transition to a board composition appropriate for the functions and objectives of the Board of Directors

- ③ Strengthen the functions of the Board of Directors Secretariat
  - 1. Review of Board of Directors secretariat functions, including expansion of staff
  - 2. More active information sharing to independent outside directors, including pre-briefing
  
- ④ Strengthen the functions of the three statutory committees
  - 1. Strengthen supervision of the executive, led by independent outside directors
  - 2. In particular, establishing process for the Nominating Committee in overseeing the CEO succession planning and appointing independent outside directors

The company reported the results of this assessment of the effectiveness of the Board of Directors by the third party organization to the Board of Directors, and as a result of discussions on future actions among the Board members, the Board of Directors confirmed that it takes the results of this assessment very seriously and in consideration of the upcoming assessment of the Governance Review Committee, it will take action with the aim of sustainably improving corporate value in the mid-long term.

#### (2) Assessment of internal control systems – assessment and recommendations by the Governance Review Committee

The company believes that in addition to the assessment of the effectiveness of the Board of Directors which is discussed in the last section, it is necessary to incorporate the perspective of third parties to assess whether there is room for improvement in the company's internal control system and governance. Therefore a Governance Review Committee will be established as a Board-commissioned body, comprised of third party specialists including lawyers. The Governance Review Committee will assess the company's internal control system and governance and will aim to provide a summary of issues identified and recommendations for improvement by March 2022.

The Governance Review Committee will comprise several external personnel including lawyers with whom the company has no existing commercial relationships. Based on the issues pointed out by the Investigative Committee, and with its main focus on improper quality practice, it will assess and identify problems relating to the company's internal control system and governance in general (e.g. systems and measures to promote compliance and matters relating to internal audits as well as the development, management, and oversight of these areas by board directors and executive officers) and make recommendations to improve them. The company will take these recommendations on board and work to strengthen its internal control system and governance. In addition, the Governance Review Committee will also clarify managerial responsibility of executive officers as well as board directors as soon as is practicable and the Board will consider necessary actions in a timely manner.

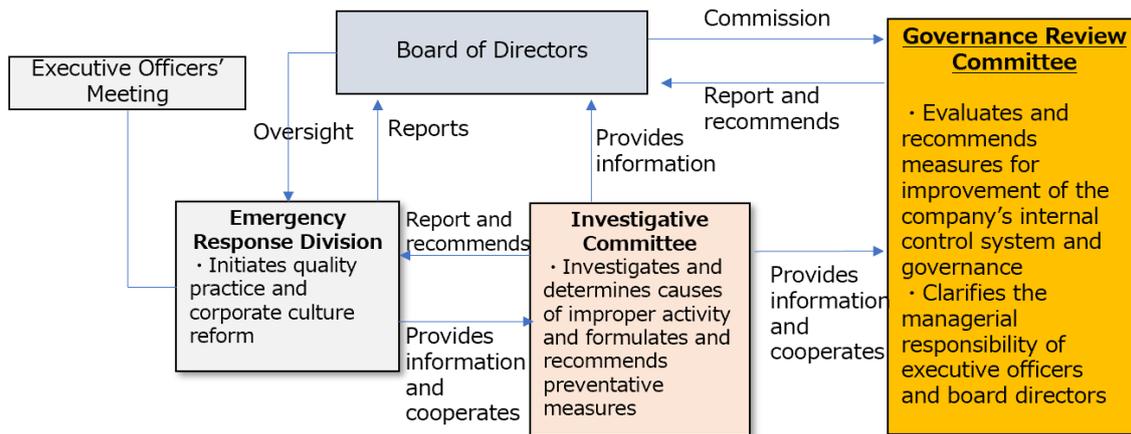


Figure 3: Position of Governance Review Committee

## **5. Future plans**

The investigation into quality practices at all of the company’s manufacturing facilities and plants (all 22 facilities) will continue, and the company will report accordingly roughly every three months on the findings of the investigation and progress on the steps the company is taking. The company aims for the investigation to be completed by April 2022 and will then proceed with investigations into its group companies.

If, in the course of future investigations, issues that need to be publicly announced are identified, the company will promptly do so , regardless of the anticipated schedule as above.

Also, depending on the progress of discussion with customers or investigations related to this improper quality practice, there may be additional costs due to compensation payout to customers, impact to sales activities and additional actions and preventative measures being conducted due to new discoveries of improper quality practices. The company will promptly disclose any discoveries that would affect this term’s consolidated performance forecast.

The company takes the suggestions and recommendations of the investigative committee seriously and will make a concerted effort to implement these reforms, including quality culture and protocol reforms, and strive to regain the public's trust through active dialogue with our customers, shareholders, investors and all of our valued stakeholders, updating them with communication that is open and transparent.

The company would like to once again express our deepest apologies for any impact this may have caused to our customers, stakeholders, and broader society.

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## **About Mitsubishi Electric Corporation**

With 100 years of experience in providing reliable, high-quality products, Mitsubishi Electric Corporation (TOKYO: 6503) is a recognized world leader in the manufacture, marketing and sales of electrical and electronic equipment used in information processing and communications, space development and satellite communications, consumer electronics, industrial technology, energy, transportation and building equipment. Mitsubishi Electric enriches society with technology in the spirit of its “Changes for the Better.” The company recorded a revenue of 4,191.4 billion yen (U.S.\$ 37.8 billion\*) in the fiscal year ended March 31, 2021. For more information, please visit [www.MitsubishiElectric.com](http://www.MitsubishiElectric.com)

\*U.S. dollar amounts are translated from yen at the rate of ¥111=U.S.\$1, the approximate rate on the Tokyo Foreign Exchange Market on March 31, 2021