Raising Product Quality Levels and Ensuring Product Safety

Management System
The management philosophy that our founder established states that Panasonic should strive “to contribute to society through its products and services while always placing the customer first”. Based on this philosophy, we engage in manufacturing activities while continuously improving our various systems and mechanisms to raise quality and ensure safety for all our products. We have adopted unique Corporate-wide targets that are even more demanding than generally accepted standards and regulations. Panasonic also keeps an eye on evolving social trends while striving to grow our business coverage, including when creating new service lines.

As a part of our fundamental policy regarding product quality, Panasonic has established a unique set of Basic Rules for Quality Administration under the responsibility of the Chief Quality Officer (CQO), who is ultimately accountable for the quality of all Panasonic products and services. We have also created a Panasonic Quality Management System that is implemented in each business division and for each Divisional Company product. This system is part of Panasonic’s customer-centric perspective and continuous efforts in improving the quality of our products and constantly reviewing the soundness of each production step. In October 2016, Panasonic enacted unique standards of duty to promote a smoother and higher performance in the manufacturing and sales of medical equipment.

Panasonic acknowledges the profound lessons learned from the accidents involving FF-type kerosene heaters, and views product safety as a top management priority. Specifically, Panasonic applies its unique product safety standards to each product lifecycle phase (from planning and design to service and disposal) for every product to ensure its safety. Furthermore, in line with changes to our businesses or products, we strive to take product safety to the next level by convening our General Product Safety Committee twice a year. We also use our corporate intranet to reach out to all employees, including quality officers and design officers at each Divisional Company and in each division, to communicate product safety-related information on every Panasonic product. This enables employees to promptly provide up-to-date safety information to customers.

Additionally, we started holding Quality Management Workshops in fiscal 2020, as we consider customer satisfaction to be intimately tied to product quality improvement. These Workshops focus on our business model and examine how to conduct business in a way that reflects the evolutions of customers’ expectations.

Policy
Panasonic’s Corporate-wide Quality Policy is unique in its statement that the company will “truly serve customers by way of providing products and services that continuously meet and satisfy the needs of customers and society.”

Panasonic has also established a Basic Policy regarding the Autonomous Code of Conduct for Product Safety. (This basic policy was approved at a meeting of the board of directors—held on June 27, 2007—of what was then called Matsushita Electric Industrial Co., Ltd.) As per this policy, Panasonic actively strives to ensure the safety of its products, while keeping to its principles of “the customer comes first” and of maintaining a “super-honest” attitude.

▸ Basic Policy Regarding the Autonomous Code of Conduct for Product Safety (Japanese only)

The Panasonic Code of Conduct also states in its “Product Safety” section that the company will strive to ensure the safety of its products.


Regulations
Quality Management System
To establish self-sufficient quality assurance processes in each Divisional Company, Panasonic published Product Quality Management System (P-QMS) Guidelines in 2004. These Guidelines supplement the requirements of the ISO 9001 standard with Panasonic’s own quality assurance methods and expertise to create a quality management system designed
to deliver the level of quality that we aim for. We have also revised the Guidelines to comply with ISO 9001-2015. These Guidelines also serve as the basis for the quality management systems established within each Divisional Company and business sites that are tailored to their own specific business sector. We also conduct quality assessments and internal audits to verify the progress of these systems at every level (Group, Divisional Company, business site, etc.), as part of the Company’s commitment to continuous quality improvement.

Panasonic strives to evolve in accordance with each of its business sectors. We have established standards designed with the aim of continuously improving quality in each sector—including consumer electronics, automotive, housing, devices, BtoB solutions, and pharmaceuticals—by specifying which portions of the P-QMS apply Corporate-wide and which portions apply to specific businesses.

**Education**

Panasonic holds training twice each year for all quality managers in each Divisional Company, business divisions and overseas subsidiaries designed to teach employees about Panasonic quality, with aim to thoroughly spread Panasonic’s approach to quality among employees. In November of each year, Panasonic also holds its Quality Control Circles World Conference to improve the quality control skills of on-site employees through the horizontal expansion of Quality Control (QC) activities, by which employees learn methods for solving problems in the workplace. At the 56th conference, held in fiscal 2019, 28 quality control circles were picked from a total of 4,565 Corporate-wide circles to compete in a quality control grand prix.

To establish a workplace culture that makes product safety the top priority in our manufacturing processes, Panasonic holds product safety training lectures to train product safety experts. To further ensure that this culture reaches all group employees, we conduct educational activities on product safety, such as by providing employees with self-paced learning opportunities, including through the “Fundamentals of Product Safety” e-learning program, and by holding Product Safety Forums, where employees can consider product safety-related issues through cases seen inside and outside the company.

Panasonic has also established a Product Safety Learning Square at the Human Resources Development Company in Hirakata, Osaka, with the aim of conveying lessons based on actual business sites and actual products, and of providing instruction to enhance product safety-related skills. The Product Safety Learning Square offers an opportunity to see actual products that were recalled in the past—as such as those recalled after the FF-type kerosene heater accidents—as well as the internal recall announcements and other information on the causes of their problems, the steps taken during the recall, and the measures taken to prevent the essentially unsafe phenomena (including tracking or strength degradation).

In fiscal 2020, 9,589 employees visited the Product Safety Learning Square. This represented a significant increase over the previous year’s number of 6,286 employees, thanks to enthusiastic promotional efforts that featured exhibits and displays at 11 business sites. The visitors—ranging from new hires to executive managers—learned about accidents from the customer’s perspective and renewed their resolve to never allow another accident to happen.

In order to further spread and establish P-QMS globally among all manufacturing personnel in the Group, Panasonic also rolled out English- and Chinese-language versions of P-QMS e-learning material.

In order to further spread and establish P-QMS among all manufacturing associates in the group, Panasonic also provided e-learning to 3,804 managers, roughly 90% of the managers at all divisions in companies in Japan.
Responsible Executive and Framework

As of August 2019, the Chief Quality Officer (CQO) is Executive Officer Hirotoshi Uehara.

With the support and governance of the Panasonic Headquarters, each Divisional Company, business division, and overseas subsidiary has implemented systems for undertaking its business with independent responsibility and self-sufficiency.

Activities of Quality Managers Meetings

Panasonic investigates and summarizes Corporate-wide quality improvement efforts and the state of product quality within the Group at its semiannual CQO Meetings. Group CQOs, CQOs from each Divisional Company, and stakeholders in relevant job functions all attend these meetings. Attendees discuss how Panasonic should handle quality over the medium and long terms, and decide on policies and actions meant to further strengthen the foundation of quality for the whole Group.

Panasonic also periodically holds Quality Managers’ Meetings—attended by the quality managers of each Divisional Company—as a place for more practical discussions on the quality policies covered during CQO meetings. These meetings both enhance cooperation within the Group and promote quality improvement efforts. Since fiscal 2016, Panasonic has also been holding an annual Global Quality Managers’ Meeting for quality managers from around the world. It is an opportunity for these managers to share regional issues and annual plans with companies from other regions and to facilitate quality improvement efforts.

Activities of the Corporate Product Safety Committee

To conduct manufacturing activities with safety as top priority, Panasonic established in 2012 a Corporate-wide Product Safety Committee made up of key people in product quality assurance at each Divisional Company and established a Safety Technology Working Group as well as a Safety Standards Working Group under its umbrella. Using these working groups, we began developing safety technologies and upgrade our product safety standards on a regular basis, in response to the 2005 FF-type kerosene heater accidents.

This Committee holds semiannual roundtable discussions for representatives of each Divisional Company to investigate
approaches to maintain and improve Panasonic quality, by ensuring the safety and quality of lithium-ion battery and network connectivity products and adapting AI to all types of product quality measures.

**Activities of the Safety Technology Working Group**
The Safety Technology Working Group takes into account the possibility that customers may use products longer than anticipated at the design stage. The Working Group develops scientific evaluation methods for testing the durability of materials used in products—including accelerated deterioration tests—accumulates data and creates testing databases. In fiscal 2020, the Working Group looked at an analysis of quality issues extending to the level of management and covering major concerns from fiscal 2019. This analysis was used to consider the adoption of specific measures to prevent recurrences, as well as ways to deploy those measures to other Panasonic divisions.

**Activities of the Safety Standards Working Group**
To realize an ever higher level of product safety beyond mere compliance with public safety standards, Panasonic has established the Panasonic Corporation Safety Standards (PCSS), consisting of internal design rules that are stricter than international standards (e.g., ISO, IEC) that must be followed when developing products.

The Safety Standards Working Group has reflected in the PCSS what it has learned from the activities of the Safety Technology Working Group, and it has strengthened standards related to major safety issues, such as long-term use, flame-retarding measures, and fall prevention. In fiscal 2020, the Working Group also shared and deliberated on quality issues and the preventive measures that were reported up to senior management, which are reviewed by the CQO Meeting and Safety Technology Working Group.

Furthermore, in order to facilitate inquiries about new technologies at Panasonic sites outside Japan, the Working Group is making efforts to revise in-house product safety standards in each business sector, including the Panasonic Corporation Safety Standards (PCSS) Edition 9 Ver. 01.

**Global Safety Standard Certifications Obtained**

**Personal care robot safety certification ISO 13482** acquired: January 2017

In February 2014, Resyone—a robotic device for nursing care that combines the functionality of a bed and a wheelchair—was the first device worldwide to acquire the global safety standard ISO 13482. Resyone PLUS, which improved on Resyone’s convenience, safety, and aesthetics, acquired certification based on ISO 13482 in January 2017.

See: [https://sumai.panasonic.jp/agefree/products/resyoneplus/](https://sumai.panasonic.jp/agefree/products/resyoneplus/) (Japanese only)

**Road vehicle functional safety standard ISO 26262** acquired: February 2012

Panasonic acquired process certification in the ISO 26262 road vehicle functional safety standard from the German third-party organization TÜV SUD. The body recognized that Panasonic is able to comply with the highest level of safety in the standard, ASIL-D, during the process of developing onboard devices and device software.

See: [https://www.jeita.or.jp/japanese/exhibit/2015/1111/pdf/02_Functional.pdf](https://www.jeita.or.jp/japanese/exhibit/2015/1111/pdf/02_Functional.pdf) (Japanese only)

*1 The international standard relating to the safety of personal care robots, issued by the International Organization for Standardization (ISO). Three types of robots are covered: physical assistant robots, mobile servant robots, and person carrier robots.

*2 An international standard for road vehicle functional safety that was published on November 15, 2011. The standard sets out four Automotive Safety Integrity Levels (ASILs): ASIL A through ASIL D.

*3 Safety achieved through the working (functioning) of electric or electronic devices, such as microcomputers. Functions include the detection of malfunctions, safe stop controls, and user warnings.
Responding to Product-Related Incidents

In the event that a product-related accident occurs, Panasonic immediately confirms the facts related to the incident, and analyzes and verifies its causes. If the incident is deemed to be serious, the Group’s Headquarters and each of its Divisional Companies and business sites work together to take appropriate measures to ensure customers’ safety. Specifically, Panasonic’s first response is to notify relevant government bodies such as the Consumer Affairs Agency, as well as the company President and senior management, which then consider how to respond to the situation.

Quality and Product Safety: Major Accidents and Responses

Serious Product-Related Accident Information

In Japan, Panasonic publicly reports serious product accidents*1, accidents suspected of being caused by products*2, and accidents for which it has been determined that it is unclear whether a product was the cause*3, based on the Consumer Product Safety Act and Panasonic’s basic policies, as laid out in its Autonomous Code of Conduct for Product Safety.

*1 "Serious product accidents" are the following accidents specified in the Consumer Product Safety Act:
1. Accidents resulting in death;
2. Accidents resulting in serious injury or illness (injury or illness requiring at least 30 days of treatment), or accidents resulting in permanent injury;
3. Carbon monoxide poisoning;
4. Fires (confirmed as such by firefighting authorities).

*2 "Accidents suspected of being caused by products" are defined as follows:
• Accidents relating to gas devices or kerosene devices (including accidents in which it has yet to be determined whether the product was the cause);
• Accidents relating to products other than gas or kerosene devices for which it is suspected that the product was the cause. Panasonic promptly releases information on these types of accidents.

*3 "Accidents for which it has been determined that it is unclear whether a product was the cause"
Panasonic publicly releases information on accidents for which the Product Safety Group of the Consumer Affairs Council of the Ministry of Economy, Trade and Industry has determined that it remains unclear whether a product was the cause.

List of Information Concerning Serious Product-Related Accidents
https://www.panasonic.com/jp/corporate/info/psc.html
Quality and Product Safety: List of Awards

1) Recipient of several Product Safety Awards from METI, including the “METI Minister’s Award”, and the “Director-General for Technology Policy Coordination and Industrial and Product Safety’s Award”
(For more details, see: https://www.meti.go.jp/product_safety/ps-award/3-consumer/h30_award.html#anc-1-1 (Japanese only))

- METI Minister’s Award, Large Manufacturer and Importer Category: Laundry and Cleaner Division, Appliance Company, Panasonic Group
- Director-General for Technology Policy Coordination and Industrial and Product Safety’s Award, Large Retailer Category: Panasonic Homes

* This awards program was launched by the Ministry of Economy, Trade and Industry (METI) in 2007 with the aim of encouraging private enterprises to make a greater commitment to improving product safety, as well as to firmly establish the value of product safety in society as a whole.

2) IAUD Design Award
Panasonic received the IAUD Gold Award for seven consecutive years until 2018 and its “Communication of Panasonic Universal Design” won the Grand Award in 2017.