Raising Quality Levels and Ensuring Product Safety

Management System
Based on the management philosophy that its founder espoused—that the company should strive “to contribute to society through its products and services while always placing the customer first”—Panasonic engages in manufacturing, while continuously improving its various systems and mechanisms relating to raising levels of quality, and ensuring product safety as a leader in global trends.

Panasonic has established a basic policy relating to quality and has installed, under the responsibility of the executive in charge of quality, quality managers at its Companies, business divisions, and overseas subsidiaries. Using the Panasonic Quality Management System, the company is engaged in continuously improving the quality of its products with a perspective that puts the customer first.

Panasonic expresses profound regret for the accidents involving FF-type kerosene heaters and reflects the lessons it has learned when ensuring the safety of its products. The company regards product safety to be its top management priority. Furthermore, to improve the level of safety of its products, Panasonic strives to ensure product safety with a groupwide General Product Safety Committee playing a leading role.

Policy
Panasonic’s Groupwide Quality Policy states 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.”

The company has also established a basic policy regarding an autonomous code of conduct for product safety.
*This basic policy was approved at a meeting of the board of directors of what was then called Matsushita Electric Industrial Co., Ltd., held on June 27, 2007.

Basic Policy Regarding the Autonomous Code of Conduct for Product Safety
* Japanese only

The Panasonic Code of Conduct also states that the company will strive to ensure the safety of its products.


Based on these foundational policies, each of the four Companies and each business division has established quality policies, which have been thoroughly implemented in all subsidiary organizations.

Regulations
Quality Management System

P-QMS complements the requirements of the ISO9001 standard with Panasonic’s own quality assurance methods and experience to create a quality management system that aims to deliver the level of quality that the company demands.

Based on its implementation of the P-QMS, Panasonic continuously improves the quality of its products, and it is bolstering its efforts to prevent quality problems from happening in the first place and to achieve more consistent quality.

In December 2014, Panasonic drew up and began applying the Automotive Quality Management System Development Guidelines (the Automotive P-QMS), which compile Panasonic’s fundamental stances on the quality of components installed on board motor vehicles.

The company is also evolving these guidelines in light of the 2015 revisions to ISO9001 to make them easier to handle while encompassing all requirements, making it a more effective management tool.
Education

To establish a corporate culture in which product safety is the top priority in manufacturing, Panasonic conducts product safety education, such as by providing employees with learning initiatives such as the Fundamentals of Product Safety e-learning program and by holding Product Safety Forums, at which engineers can learn from one another about product safety.

Panasonic has also established a Product Safety Learning Square at a Human Resources Development Company in Hirakata, Osaka Prefecture, with the aims of fostering a “safety culture” deeply ingrained by the practice of going to see the actual location and the actual items in question, and providing opportunities to learn about safety technologies relating to products that have reached the end of their life cycles, with full consideration to the deterioration of materials and components over time after long-term use and so forth. The Product Safety Learning Square has displays of actual products that were recalled in the past and illustrates the causes of the problems and the steps that were taken, with the aim of passing down the lessons learned from the FF-type kerosene heater accidents and of eliminating seven major product safety problems the Company has identified.

This fiscal year has seen 6,445 visitors to this facility, ranging from new hires visiting for their training at the Human Resources Development Company to management-level employees.

Responsible Executive and Framework

As of August 2016, the Chief Quality Officer (CQO) is Senior Managing Director Yoshiyuki Miyabe.

Under his supervision, each Company has implemented systems for performing its business with independent responsibility and self-sufficiency.

Quality Management Structure

Since September 2014, regional quality administration managers have been appointed for six regions: North America; Latin America; Europe and CIS; Southeast Asia and Pacific; India, South Asia, Middle East and Africa; and China and Northeast Asia.

These managers monitor regional quality conditions and provide feedback including information on quality risks, report even slight mishaps or trouble from the field to each business division as necessary, and respond rapidly to risks. They also endeavor to gather the latest information on technical regulations in their regions, centrally managing it online, and updating and sharing it within the Company on a daily basis as Technical Regulations Flash Notices.
Committee, Organization

Activities of the Meetings to Exchange Information on Environment and Quality Activities/Quality Managers’ Meeting
Panasonic periodically holds “Meetings to Exchange Information on Environment and Quality Activities” as a venue for reviewing the state of groupwide quality improvement efforts. The meetings are attended by CQOs at each Company and stakeholders in relevant job functions. At the meetings, the different Companies share best practices relating to quality improvement measures, discuss how Panasonic should handle quality over the medium and long terms, and engage in other activities in pursuit of a stronger foundation of quality for the whole group.

Panasonic also periodically holds Quality Managers’ Meetings, attended by the managers responsible for the departments that oversee quality-related operations within each Company, as a place for more specific discussions. These meetings both enhance cooperation within the group and promote quality improvement efforts.

Since fiscal 2016, Panasonic has held a “Global Quality Managers Meeting” once a year as an occasion for individuals responsible for quality in regions across the globe and managers responsible for departments that oversee quality-related operations within each Company to come together to share issues and best practices, facilitating quality improvement efforts.

Activities of the General Product Safety Committee
To implement manufacturing with product safety as its top priority, in 2012 Panasonic reorganized its groupwide General Product Safety Committee and established a Safety Technology Working Group and a Safety Standards Working Group under its umbrella. Using these working groups, the company has firmly entrenched the safety technologies that it developed in response to the 2005 FF-type kerosene heater accidents and the product safety standards that it devised, making the use of these technologies and standards even more consistent.

Because of the increasing need for safety features in automobiles, robots, and other products, Panasonic is promoting the acquisition of safety standard certifications through intragroup partnerships to assure safety in these product categories.

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 during a product’s design phase. It develops scientific evaluation methods for testing material durability—including accelerated deterioration tests—accumulates data, and stores them in databases.

Because air conditioners, refrigerators, and other home appliances are joining audiovisual devices in becoming Internet-connected, and because it is predicted that Internet-of-Things (IoT) technologies will continue to advance, the importance of security measures is greater than ever. Panasonic has compiled guidelines on threat analysis and other security methods for product security, and has refined its education in relevant divisions. The company has set up risk data collection sites in Japan, Europe, and China, creating a system that can detect vulnerabilities early and implement countermeasures rapidly.

Panasonic established a Product Security Center in January 2016, concentrating groupwide governance, human resource training, technological development, and device verification functions related to product security there in an effort to bolster these systems.

Activities of the Safety Standards Working Group
Beyond complying with public safety standards and to realize a higher level of product safety, Panasonic established the 1999 Panasonic Corporation Safety Standards (PCSS), consisting of design rules 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 relating to major safety issues, such as long-term use, flame-retarding measures, and fall prevention. The working group is also making efforts to enhance its product safety standards to actively prevent risks that it anticipates could occur because of the expanded areas in which the company does business. For example, to ensure the safety of the storage battery systems that constitute one of Panasonic’s growing lines of business, the working group created the Panasonic System Safety Standards (PSSS), which cover, among
other systems, those for managing generated and stored energy. To ensure the safety of the personal-care robots that are anticipated to become commonplace in the relatively near future, the working group established the Panasonic Personal-Care Robot Safety Standards (PRSS) prior to the creation of an international standard (ISO 13482). Panasonic’s standards complemented ISO13482 with its own unique perspective, thus ensuring even greater safety.

**Global Safety Standard Certifications Obtained**

**Personal care robot safety certification ISO 13482**

With Resyone, a robotic device for nursing care that combines the functionality of a bed and a wheelchair, Panasonic was the first company worldwide to acquire certification based on the global safety standard for service robots, ISO 13482. Through participation in a project by the New Energy and Industrial Technology Development Organization (NEDO), Panasonic contributed to the creation of international safety standards. The company will continue to develop and offer personal care robots that customers can trust.

**Road vehicle functional safety standard ISO 26262**

Panasonic acquired process certification in the ISO 26262 road vehicle functional safety standard from the German third-party organization TÜV SÜD. 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 on-board devices and device software.

Taking advantage of being process-certified, Panasonic will strive to make even safer products and to contribute to creating a society in which cars are safe, environmentally friendly, convenient, and comfortable to drive.

*1: The lone 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 detection of malfunctions, safe stop controls, and user warnings.
Responding to Product-Related Incidents

In the event that a product-related accident has occurred in the market, Panasonic immediately confirms the facts relating to the incident, analyzes the causes, and performs tests. If the company determines that a product-related accident is serious, the Panasonic Corporation’s president and senior management rapidly and accurately report what has happened to the Consumer Affairs Agency or other relevant government bodies. Meanwhile, to ensure the safety of its customers, the Panasonic group acts as one to take all appropriate measures.

Product Accident Response Flowchart

Serious Product-Related Accident Information

In Japan, Panasonic publicly reports serious product accidents, accidents suspected of being caused by products, and accidents for which it has been determined that it is unclear whether a product was the cause, based on the Consumer Product Safety Act and Panasonic’s basic policies 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 Panasonic publicly releases information on the following types of accidents, suspected of being caused by products, as soon as they come to light:
- 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 and for which it is suspected that the product was the cause

*3 “Accidents for which it has been determined that it is unclear whether a product was the cause” refer to the accidents announced by the Consumer Affairs Agency as accidents for which it cannot be determined whether a product was the cause. Out of these accidents, Panasonic publicly releases information on those 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
http://panasonic.co.jp/info_psc/
* Japanese only

Other initiatives for raising quality levels and ensuring product safety are introduced in the following website.