Toray Group delivers high-value solutions and the highest level of quality to its customers in helping to realize a sustainable society.

To Our Stakeholders

Akihiro Nikkaku
President
Toray Industries, Inc.
Inappropriate actions relating to UL certification in the resins business

Toray Industries, Inc. (Toray) reported in January 2022 that it had failed to submit the proper samples of certain resin products intended for certification testing by Underwriters Laboratories LLC (UL), a global third-party safety science organization. In this case, Toray submitted samples that differed from the grades specified for testing in regard to the standards indicating flame retardancy performance of resins as stipulated by UL. The report also disclosed that some grades of certified resins had been produced and sold with compositions that differed from those certified. Not only did this issue greatly cause inconvenience to customers, it also significantly damaged Toray’s reputation among all of the stakeholders who support the Group on a constant basis, for which I would like to extend my deepest apologies. Upon receiving the investigation report prepared by an expert committee in April 2022, Toray genuinely acknowledged the facts of the issue, the cause analysis, and the recommendations for preventing recurrence contained therein. The Board of Directors then formulated recurrence prevention measures based on the principal causes (see p.68). Under the responsibility of the senior management team that I lead, all executives and employees are committed to working in unison to execute the measures without fail in a thorough effort to recover the reputation of Toray among its customers and society more broadly. The implementation status of these recurrence prevention measures has been disclosed on the Toray Group website.

Ensuring thorough compliance

Toray includes “Ethics and Fairness” as part of the “Toray Philosophy,” which systematizes the concept of Toray-style management. And as one of my personal principles, I have continued to practice the idea of “stay focused on the basics, search for ideal approaches, identify the right steps, and then carry them out,” the importance of which I have conveyed to Toray’s executives and employees ever since I was appointed President in 2010. In particular, following the discovery in 2017 that quality data had been overwitten, I presented the slogan of “have the integrity to do the right thing in the right way” and strove to foster a greater awareness of compliance. Moreover, under the Toray Philosophy (TP) Project that was deployed across the Group, I felt that progress had been made by Toray’s efforts to firmly instill the Corporate Guiding Principles of “Ethics and Fairness” and “Customer-Focus” for the purpose of putting into practice the Management Philosophy of “Contribute to the realization of a sustainable society through business activities.” Therefore, I am very disappointed that the inappropriate actions involved in UL certification of the Group’s resin products continued behind the scenes without ever being corrected.

Immediately after the UL certification issue was discovered, I released a message to the entire Group stating that “the seriousness of this matter lies in the fact that the situation where the individuals who found out the issue did not take any corrective measures toward the fundamental resolution continued over such a long period of time.” If inappropriate activities become the norm within an organization, hesitation to participate in
such activities will weaken, and it will become difficult for those who recognize an issue to speak up. In order that Toray Group contribute to the development of society through the business activities, I believe the most important step is to establish an organizational culture in which employees immediately make corrections when they become aware they are doing something wrong. Taking the opportunity, I have given instructions on the inspection at each workplace to check whether it maintains any customary practices that have been passed down over the years and need to be reviewed with the passage of time. I have also exchanged a promise anew with all employees to always take corrective actions when they become aware of or observe any inappropriate activity in the future. Furthermore, the senior management team, including myself, will show our serious commitment to this promise at every opportunity to interact with employees, including various meetings and informal business results briefing sessions. And we will strive to strengthen compliance awareness and improve the organizational culture in order to instill the concept that “compliance is the top priority for management” into every corner of Toray Group. In addition, I intend to foster a more open and better corporate culture by providing more opportunities than ever before to the senior management team to listen to employee feedback and by ensuring two-way communication.

**Performance overview for fiscal 2021**

Against the backdrop of rebound from the economic slump caused by COVID-19, easing of activity restrictions associated with vaccination progress, and major economic measures in the U.S., fiscal 2021 welcomed a significant recovery in the global economy. Despite this, Toray’s business environment remained severe, only showing a moderate pace of economic recovery during the second half of the fiscal year due to factors including a tight supply-demand situation for semiconductors and other parts and materials, supply limitations stemming from labor shortages, skyrocketing raw material, fuel, and logistics costs caused by the situation in Ukraine, and lockdowns resulting from China’s zero-COVID policy.

Amid these challenges, Toray Group experienced broadly higher revenue and profits, with consolidated revenue up 18.3% year on year to ¥2,228.5 billion, core operating income up 46.3% to ¥132.1 billion, operating income up 80.0% to ¥100.6 billion, and profit attributable to owners of parent up 83.9% to ¥84.2 billion. In particular, ABS resins contributed significantly to securing revenue, while carbon fiber composite materials also returned to the black.

**Priority issues for fiscal 2022**

Fiscal 2022 is the final fiscal year of the Medium-Term Management Program, Project AP-G 2022. AP-G 2022 was launched in fiscal 2020 when COVID-19 infections began to spread around the globe. During the COVID-19 pandemic, restrictions on the movement of people and goods disrupted supply chains, while dramatic changes in behavioral patterns and production activities had a significant impact on Toray Group’s businesses. In addition to the prolonged situation in Ukraine, other areas of growing uncertainty include the spread of infections by variants, a weak yen, and soaring prices. In consideration of the sizable changes in the business environment being driven by the impacts of these uncertainties, Toray lowered its forecast for consolidated core operating income from the initial AP-G 2022 target to ¥130.0 billion (down 1.6% compared with fiscal 2021). In particular, fibers and textiles, battery separator films for lithium-ion secondary batteries, and carbon fiber composite materials deviated considerably from the initial targets. In regard to fibers and textiles, the increasing shift to work from home or remote work due to the COVID-19 pandemic, as well as changes in behavioral patterns among people, led to
a contraction in the formalwear market. Meanwhile, battery separator films have become entangled in fierce price competition with manufacturers from emerging nations. Similarly, carbon fiber composite materials have been negatively affected by the delayed recovery in aircraft demand, which collapsed during the pandemic. Across-the-board, soaring raw material, fuel, and logistics costs have placed intense pressure on profits.

In response to these challenges, Toray will take the following actions. Firstly, as for price pass-through, Toray has no intention of simply raising prices to offset skyrocketing raw material, fuel, and logistics costs, and will instead strive to make price corrections that are commensurate with value. One of the reasons why raising prices is unacceptable is because the value of the product is relatively low, which means that Toray must thoroughly engage in ensuring high added-value in order to raise the value of products themselves and in enhancing cost competitiveness in order to balance the value of products with their price.

In terms of providing high added-value to fibers and textiles, Toray will seek to differentiate its products by applying NANODESIGN™ technology, an approach to controlling fineness and shape of the synthetic fibers at the nano-level for the purpose of enabling completely new functions and textures, thereby creating new markets. Moreover, Toray will actively introduce sustainable materials that reflect the needs of the times, such as &+™ (And Plus) recycled fibers made from used PET bottles. Meanwhile, battery separator films will take a new direction toward specialization in high-end applications. Specifically, Toray aims to expand this business based on high reliability, high-capacity products that utilize its coating technology in conjunction with its film forming technology. Among the various carbon fiber composite materials, regular tow carbon fibers are now primarily supplied for industrial applications for which demand is rapidly expanding, such as natural gas pressure vessels, in place of aircraft applications for which the market has temporarily contracted. However, given expectation for a recovery in aircraft demand over the long term and for further growth in demand from industrial applications, Toray will keep a close watch on demand trends for each application as it seeks to further improve quality and cost competitiveness while expanding production capacity.

On the other hand, Toray is also accelerating the introduction of products that capture changes in the market. First, Toray foresees increased production and sales of TORAYFAN™ polypropylene films for ultra-thin automotive capacitors. In terms of electronic and information materials, Toray expects to see growth in OLED materials. Then, in terms of carbon fiber composite materials, Zoltek, a U.S. subsidiary, will begin operating an additional carbon fiber production line for wind turbine blade application during the second half of fiscal 2022, which is expected to contribute to the revenue and profit.

**Accelerating sustainability initiatives**

Even amid repeated waves of COVID-19 infections and uncertainty regarding movements in international affairs, discussions over issues involving the sustainability of society have heated up. In working to realize the four perspectives of the world* as outlined in the Toray Group Sustainability Vision formulated in 2018, Toray is advancing initiatives that will contribute to the realization of a sustainable society in accordance with growing demand, primarily in the Green Innovation (GR) businesses, which help solve global environmental issues as well as resource and energy issues, and in the Life Innovation (LI) businesses, which contribute to health maintenance and longevity, and improving the quality of medical care as well as to promoting public health. Moreover, Toray is actively engaged in reducing greenhouse
gases (GHGs) emitted from its own business activities, and has declared its commitment to achieving zero GHG emissions in practice by 2050.

As the headquarters for these initiatives, in April 2021, Toray established the Sustainability Committee, which is chaired by the President, to debate and discuss group-wide policies, thereby putting into place a system to formulate overall roadmaps and action plans for realizing the Toray Group Sustainability Vision. Under the umbrella of the Sustainability Committee, the Climate Change Subcommittee identifies issues within initiatives for carbon neutrality, and proposes and advances countermeasures. Similarly, in April 2022 Toray launched the Circular Economy Subcommittee, which drives initiatives to achieve a circular economy, including efforts to promote the recycling of fibers and textiles, films, and resin products, the development and commercialization of plant-based bioplastics, and the recovery and recycling of GHGs at the production stage.

* 1. A net zero emissions world, where greenhouse gas emissions are completely offset by absorption
2. A world where resources are sustainably managed
3. A world with a restored natural environment, with clean water and air for everyone
4. A world where everyone enjoys good health and hygiene

Sustainability and digital technology utilization as the next medium-term management program keywords

Toray is currently working to prepare the next medium-term management program, which will kick-off in fiscal 2023. Here I will explain on our business expansion in growth areas and advanced business management by utilizing digital technologies which will be the key to the future business operations.

In terms of expanding business in growth areas, Toray will further accelerate the initiatives intended to realize the four perspectives of the world as outlined in the Toray Group Sustainability Vision. As a materials manufacturer, Toray Group is seeing an increasing number of opportunities to contribute to the realization of a sustainable society, so I am certain that the Group will be able to play an even greater role than ever before.

In particular, I am keenly aware of the growing expectations from the field of climate change action on Toray Group in regard to realizing a hydrogen society. Similarly, Toray Group foresees the arrival of an era when green hydrogen made from water and power provided by renewable energy becomes the primary energy medium for the world. Which is why Toray is developing materials for building a green hydrogen supply chain. Toray is already the global leader in key components such as hydrocarbon (HC)-based electrolyte membranes which increase the performance of water electrolysis devices. And in June 2022, Toray established the HS Division directly under the authority of the President in order to expand the business for the membranes. In order to shift to full-scale global deployment for bolstering the introduction of green hydrogen, Toray has also begun cooperating with companies and organizations from Japan and overseas, including Siemens Energy AG, one of the world’s leading manufacturers of water electrolysis devices and a company with which Toray has agreed to build a strategic partnership.

In terms of advanced business management by utilizing digital technologies, the Technology Center DX Promotion Committee is advancing DX under the themes such as material design, quality improvement, and the enhancement of production efficiency. In particular, for production sites, the Committee classifies the degree of digital technology utilization for each task in accordance with the level and is working in stages to increase the sophistication of tasks by leveraging digital technologies. The Committee is also advancing initiatives that fundamentally enhance the efficiency of research and development by leveraging materials informatics, AI, and other advanced technologies.

The Business Division DX Promotion Committee
The important point here is to develop human resources that can utilize digital technologies based on a good grasp of “Genba” (workplace) operations. Knowledge of digital technologies alone cannot produce good results. Toray Group’s promotion of DX is founded on the concept of solving issues through the utilization of practical digital technologies that are closely tied to Genba, whether it be sales and marketing or production.

**Highest level of quality as the foundation of the Toray brand**

In May 2020, the Group announced the “Toray Philosophy” as a systematized concept of Toray-style Management, passed down since its founding. Toray has raised the corporate philosophy of “Contributing to society through the creation of new value with innovative ideas, technologies and products,” which is positioned at the top of the “Toray Philosophy.” Ever since its founding, Toray Group has operated based on the unwavering belief that “companies are public institutions,” and therefore values the perspective of contributing to all of its stakeholders, including its employees.

In order to continue contributing to the sustainable development of society through its businesses, Toray Group must ensure that every individual working for the Group deeply empathizes with the “Toray Philosophy” and possesses the feeling that they are contributing to society through their work. Therefore, during the period from August 2020 to March 2022, Toray extended the Toray Philosophy (TP) Project to everyone working at Toray Group, and conducted activities to build connections between colleagues at each workplace in a way that allowed them to share and realize the meaning of working at Toray Group and the future vision for Toray Group. Specifically, the Group implemented an interactive program in order to help employees understand and practice the “Toray Philosophy.” Under the theme of “What the ‘Toray Philosophy’ means to me,” each executive conveyed to the employees in a relay manner “the type of value they want to deliver and to whom through their work,” after which employees discussed the same theme in their respective workplaces. This effort served as a highly consequential activity that allowed each employee to understand the “Toray Philosophy” and gain a new awareness for putting the “Toray Philosophy” into practice.

In response to the outcomes of the TP Project, in fiscal 2022 Toray launched the “Brand Committee,” which began investigating measures that enable the “Business Brand/Product Brand” and the “Technology Brand” to enhance the value of each other, based on the “Corporate Brand” which reflects the beliefs of the “Toray Philosophy.” In addition, I believe a brand strategy that spreads throughout the world a better understanding of how Toray Group’s products are used and how they are helpful is important to ensuring that employees work with a sense of pride.

The foundation of Toray brand is to provide the highest level of quality in the world. Toray will therefore squarely face the challenges brought to light by the UL certification issue, raise the strength of quality anew, including compliance, and continue to deliver new value and high-quality products to the world. Toray intends to spare no effort in the aim of earning the trust of its customers and society more broadly and of becoming a respected company. We look forward to the ongoing support and understanding of our stakeholders in these endeavors.

_Akihiro Nikkaku_  
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Toray Industries, Inc.