Our Foundation

Sustainable Foundation for Value Creation

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A Message from the Chairman

TOK is advancing corporate governance from the mindset of strengthening global consolidated management and pursuing happiness in personnel.

Governance Reforms to Strengthen Sustainable Growth Capacity

The TOK Group established the Nomination and Compensation Advisory Committee in December 2018, appointed a Chairman and Representative Director in January 2019, and issued the TOK Corporate Governance Guidelines in April 2019.

Following a series of reforms to governance, the TOK Group has transitioned to a new stage of corporate governance with the aim of strengthening its capacity for sustainable growth. Management did not make these changes just for the sake of change. The Company has improved transparency and fairness in management through the Nomination and Compensation Advisory Committee, which mainly consists of outside directors. The Chairman and Representative Director has management responsibilities set apart from business execution, and TOK continues to have a function of checks and balances through independent officers while preserving the autonomy of inside directors. With these functions in place, TOK is positioned to strengthen its capacity for sustainable growth and advance toward its vision as a "100-year company" in 2040.

Strengthening Global Consolidated Management

The overseas sales ratio has recently risen above 75% of the consolidated net sales, and TOK now has five plants and four customer-oriented sites located overseas. I believe strengthening global consolidated management is by far the most important point for strengthening our capacity for sustainable growth. Since 2016, the Company has built and operated the Group Management System (GMS) by which we share information about risks in the Company's business activities inside and outside Japan from three viewpoints of control, risk, and compliance, and translate it into sustainable value creation. In 2017, TOK unified the fiscal year-end to December for all its subsidiaries inside and outside Japan in a move to reinforce global consolidated management in terms of internal controls, finance and accounting.

We are also seeing gradual progress in global consolidated management in the management ranks, with a local hire filling the top management position at TOK Advanced Materials Co., Ltd., and local personnel being promoted to key positions at subsidiaries in the U.S. and Taiwan as well. In the future, we are ready to accelerate global consolidated management in personnel by appointing talented personnel as executive officers and directors without regard to nationality.

Concept of Pursuing Happiness in Personnel

The most important concept in our governance reforms to strengthen global consolidated management is the pursuit of happiness in personnel. This is more than increasing the average annual salary, improving work-life balance and making the workplace better for female employees. TOK has already made



progress on these issues. I believe the core of happiness for our employees lies in how helpful they can be to our customers and society. Last year, a customer in North America decided to use our super-high-performance clean solutions in their cutting-edge semiconductor processes. The clean solutions are likely to be used across a broad segment of society, centered on next-generation semiconductors for 5G communications. Although the development team at the local customer-oriented site went through quite an unimaginable ordeal, I hear the team was happy beyond words that they were useful to this customer and society. I believe my mission is to provide opportunities not only for our employees overseas, but also our employees in Japan, who make up 80% of the consolidated total, to experience this level of happiness.

In the pursuit of happiness for managers, including directors and executive officers, we will change the remuneration system for directors and auditors. TOK has long had a performancelinked remuneration system for directors and auditors, but we are currently creating a new remuneration system that is better aligned with social issues and the Company's future direction. The Nomination and Compensation Advisory Committee is working on the specifics of formulas for calculating performance indicators with the aim of implementing the new system as early as the fiscal year ending December 31, 2020.

Monitoring Progress under the "TOK Medium-Term Plan 2021"

Regarding the monitoring of progress under the "TOK Medium-Term Plan 2021" that began this year, I am prepared to give advice on changes in directions and trajectories from a broad viewpoint and my position as Chairman and Representative Director separate from business execution.

The pace of technological change in the electronics industry has been accelerating lately, while uncertainties have strengthened in the outlook for the business environment for TOK due to trade friction between the U.S. and China. Through the reforms to our business portfolios being advanced under the "TOK Medium-Term Plan 2021," we must not only accelerate the expansion of new business but also reshuffle product portfolios in existing businesses and the reengineering of our supply chain. I will focus my energies on monitoring business execution in this context.

As key measures in the "TOK Medium-Term Plan 2021," the Company will set KPIs for qualitative targets for enhancing personnel measures, strengthening the management foundation, improving corporate governance and promoting efforts to address material issues. I will promote the effective monitoring of these efforts.

We kindly request the ongoing support and understanding of all our stakeholders.

Messages from Independent Officers

We are continuing discussions for further governance reform.

Hiroshi Kurimoto

Outside Director. Chairman of the Nomination and Compensation Advisory Committee



New Management and Governance System from 2019

Firstly, I would like to talk about the decision-making process for appointing President Noriaki Taneichi after the previous president, Ikuo Akutsu. Taneichi was selected under the old system before the establishment of the Nomination and Compensation Advisory Committee in December 2018. Like the process in the new system, former president Akutsu discussed his recommendations for the next president with myself and Outside Director Sekiguchi.

We heard many reasons for recommending Taneichi, the current president, for the position, such as "he has new ideas that go beyond existing businesses, extensive hands-on experience in both semiconductor-related businesses and new businesses, and the background in numerous businesses to support the Company's future," "he has an excellent personality, no prejudices, and views matters from an open and fair standpoint," and "he has the ability to make judgments necessary for a business executive, thanks to his management experience at subsidiaries in the U.S." I had many opportunities to talk with Director Taneichi when he was responsible for new business development. I approved Director Taneichi as a candidate for president because I was impressed with his fearless and aggressive approach to challenges, indicating he would be able to boldly guide the Company forward amid various changes. Moreover, I thought he is well-suited for the top position at TOK, a company with business primarily in cutting-edge fields, given his earnest and open personality, as well as his relatively young age. Akutsu, the previous president, also impressed upon me the strong decisiveness that he displayed in reinforcing the Company's corporate governance, in addition to making the recommendation for the next president.

Approximately seven months have passed since the new governance system began with a Chairman of the Board of Directors separated from business execution. I believe TOK's governance system has steadily taken its proper shape. As issues to address in the future, I think it will be important for

the Company to continue discussing new reforms, in addition to the current situation with directors also serving concurrently as officers, and the status of outside directors.

As the Chairman of the Nomination and Compensation Advisory Committee

My responsibilities have increased substantially since being appointed the Chairman of the Nomination and Compensation Advisory Committee, and I keenly feel the weight of this responsibility. Soon after being appointed, Outside Director Sekiguchi and I began to hold interviews with officers to get to know the other directors and officers. In these discussions, I gave my opinions about the state of remuneration for directors and officers. Such remuneration should adequately reflect the degree of responsibility for each position, and I also thought there needs to be some variation in remuneration. Since the committee was established in December 2018, its main activity has been to discuss candidates for directors and auditors in the fiscal year ending December 31, 2019, and more recently to draft proposals for the new remuneration system for directors and auditors to be implemented from the fiscal year ending December 31, 2020.

Enhancing Corporate Value and Social Value over the Medium to Long Term

It is often said that the top managers of companies decide their fate, and having experienced working as the representative director and president of a global niche top company with strengths in ESG products, I believe management must be oriented toward both corporate value and social value as a foundation, going beyond business operations and profit accumulation.

In this context, however, I do not have a clear and simple answer ready for the question of what qualifications are required for top management. As top management members are also people, this means there is a diverse range of qualifications. As the Chairman of the Nomination and Compensation Advisory Committee, I believe a part of my mission is to have a lively and thorough debate about the qualifications of future top managers.

Without reservation, I will give my opinions about advancing governance and diversity.

Noriko Sekiguchi

Outside Director, Member of the Nomination and Compensation Advisory Committee



As a Member of the Nomination and **Compensation Advisory Committee**

As an outsider looking in, I am aware of my duty to supervise management from an independent standpoint to fulfill accountability to stakeholders, while enhancing the transparency and objectivity of the decision-making process for nominating and remunerating managers. More specifically, based on the standards and policies outlined in the TOK Corporate Governance Guidelines, I am prepared to give advice on designs and frameworks, by asking whether the nomination of candidates follows a logical process that takes into account the requirements and abilities of the candidates, as well as business plans and external environment, and if remuneration provides incentives for taking appropriate risks.

Regarding creation of a selection process for successors, I intend to operate the committee by getting more involved in supervision, such as having us outside directors have enough opportunities to talk more frequently with candidates, while ensuring more objectivity and fairness in procedures.

Advancing the Group Management System

Through the Group Management System (GMS), the core system for managing risks at TOK, management aims to strengthen corporate governance by further instilling the Company's policies at group companies in line with certain rules. To continue responding appropriately to sudden changes in the business environment, the most effective way forward is to repeat the basic work of performing annual checks for any omissions or defects in management items and operational rules. To ensure these activities are meaningful, our monitoring will emphasize constant change in the direction of effectiveness, efficiency, and uniformity, while encouraging every employee of the Group to deeply understand the significance of GMS.

Aiming to Promote Female and Non-**Japanese Personnel**

In recent years, the ratio of women among new hires has risen to around 40% at TOK. Personnel exchanges between overseas subsidiaries and the headquarters or plants in Japan have picked up in line with the Company's commitment to leveraging diversity in the organization, regardless of gender or nationality. To further promote diversity, it will be helpful for us to set up a special department for creating networks mainly to exchange information and hold events several times a year to spread awareness within the Group. I believe TOK would benefit from a stronger push on initiatives like this. The numbers of female and non-Japanese employees have steadily increased within the Group, and as this trend continues, I think their understanding as a Group will naturally deepen. Minorities such as female employees and non-Japanese employees are human "capital" for the Company because they bring perspective to diversity management, respecting and taking diversity into account based on their own experiences.

As an issue to address, the Company aims to increase the ratio of women in management positions (2.4% as of December 31, 2018) by creating an environment that supports women in management positions, such as by having superiors give female employees who would like to become managers more work responsibilities, while providing criticism and positive feedback when appropriate. Female managers in charge of numerous subordinates will stand out, and may have to fight a lonely battle while getting used to their new roles. With peers and mentors supporting their advancement, however, managers will be able to dive into their work, in my opinion. The saying where the job title makes the person is also true for women. I hope female employees will take on the challenge of management and view this as a once-in-a-lifetime opportunity in their careers.

Initiatives to Address Material Issues for Enhancing Corporate Value

Material Issues/2018 Results & 2019 Issues and Goals

Material issues	ESG fields	Key initiatives	Issues and goals of FY2018/12
		Further improvement of customer satisfaction	Promote a strategy of building close relationships with customers/Strengthen marketing
Development and provision			Maintaining and improving quality management systems
of high value-added products that will contribute to innovation			Develop and manufacture cutting-edge materials that contribute to advancement of industry and technological innovation
		Contributions to innovations and resolution of social issues	Development of new businesses
			Open innovation
	Social (S)	Improve capacity of personnel	Personnel measures for a "100-Year Company"
			Promoting a good work-life balance
Enhancement of personnel		Diversity and inclusion	Continue promotion of corporate activities that leverage diversity
measures		Diversity and metasters	Promotion of women in the workplace
		Respect for human rights and	Continue initiatives to maintain fair personnel and employment systems
		fair working conditions	Prevention of harassment
		Strengthen effectiveness of corporate governance	Ensure management transparency and constantly enhance governance
			Continuously update internal control regulations on a global basis
		Compliance	Continue activities to instill compliance
Enhancement of corporate	Governance (G)	Compilance	Respond to internal reporting incidents
governance			Strengthen TOK Group's risk management system
l		Risk management	Strengthen crisis management
			Prepare for large-scale earthquakes
			Maintain, manage, and improve information management systems, confirm and review application of rules for information management

- [Self-assessment of goal achievement] − ○ Took steps, achieved results △ Took steps, but need to do more X Did not take steps

	11 2 10 100 100 100 100 100 100 100 100					
Main	achievements and progress in FY2018/12	Evalu- ation	Issues and goals of FY2019/12	Pages	Related SDGs	
	didated net sales: Increased by 4.8% year on year used new development projects	0	Rapidly and steadily work to develop a support structure rigorously focused on customer satisfaction along with R&D Through rigorous marketing, TOK will carefully identify solutions that lead to the creation of new value for customers as it makes intensive and proactive efforts to address those solutions	P40–43 P56–63	3 menture 	
	ved detection sensitivity for metal impurities that comply with mer development roadmaps	0	■ Improve detection sensitivity for metal impurities that comply with customer development roadmaps	P6 P58	12 1101001	
	used total net sales of cutting-edge photoresists (EUV, ArF and KrF) year on year	Δ	■ Ambitiously develop the technologies required by 5G, loT and innovation	P40–43	(CO	
	oted development and commercialization of high-functional films iochip materials	Δ	Advance development and strengthen commercial viability of high-functional films, optical materials, and life sciences-related materials	P25 P32–33	•	
■ Increa	a new R&D Building sed number of collaborative projects with other companies and s by 5% year on year	0	■ Smoothly commence operations of new R&D Building ■ Expand collaborative projects with other companies and groups	P25 P58–59	17 ****** &	
peopl ■ Total	number of participants in Level-based Training Program: 3,685 e number of participants in TOK Global Practical Training for ted Members: 49 people	0	■ Personnel measures for a "100-Year Company" ■ Bolster human resources that will pursue the possibilities of business with a variety of customers and continue to tackle challenges until they succeed	P26 P48–51	2 000400	
■ Ratio	of paid leave taken: 75.3%	Δ	■ Continue promoting a good work-life balance	P48-51	-w>	
	of non-Japanese employees: 22.6% of local hires in overseas management positions (consolidated : 61%	Δ	■ Continue promotion of corporate activities that leverage diversity	P48–51 P69	4 8855	
■ Ratio	of women in senior and middle management: 2.4% of female new graduates hired: 43.3% used childcare leave taken by both male and female employees	Δ	■ Continue to promote women in the workplace	P48–51 P69	5 IIII.	
perso	oted initiatives to introduce a new personnel system via the nnel system reform project and the Human Resources Div., while dering issues raised in personnel system examination meetings	0	■ Continue initiatives to introduce a new personnel system via the personnel system reform project and the Human Resources Div., with plans to roll out the new system in January 2021	P48–51	****	
trainir	ntage of employees who have received harassment prevention ng: 100% nyees who have felt harassed raised their voices	Δ	Continue efforts to prevent harassment	P51		
2019)	ed position of Chairman and Representative Director (January lished the Nomination and Compensation Advisory Committee	Δ	■ Settle in and smoothly operate Nomination and Compensation Advisory Committee (meet once a year) ■ Continue PDCA cycle for improving the effectiveness of the Board of Directors (assess its effectiveness once a year) ■ Review decision-making authority of the Board of Directors, etc. (already reviewed at TOK in April 2019, plan to do at subsidiaries in January 2020)	P66–69 P76–78		
■ Updat■ Create■ Updat	ed and shared regulations that needed updating at subsidiaries ed regulations at European and Chinese subsidiaries ed EHS (environment, health and safety) management regulations ed Group information management regulations and standards nentation with cross-references in documents at each company	0	 ■ Continuously update internal control regulations on a global basis ■ Continue PDCA cycle for internal controls (confirm progress and review policies twice a year) 	P82–85		
dome	liance Committee Secretariat conducted compliance training at all stic sites, and additional compliance training tailored to situations up departments and sites	0	■ Continue activities to instill compliance ■ Minimize legal risks	P82–85		
and fo	on three reports received, moved to understand all the facts, or those involved, gave instructions, took disciplinary actions, and corrective measures from an objective viewpoint	0	■ Further enhance internal reporting system	P83	9 MACH MANCH	
	med risk assessments, and took steps to reduce risks deemed to have an outsized impact. Achieved 20% of reduction goals	×	■ Work to reduce new risks identified in risk assessments and ongoing risks	P83	₩	
transp rainfa actior	ed Business Continuity Plan (BCP) with review of alternative portation options considering the damage caused by torrential II in western Japan in July 2018. Finished a formulation of initial a guidelines applicable to all production sites of the Group, ing overseas subsidiaries	0	■ Create a unified BCP for the Group that addresses various risks	P83		
during	ucted drills to improve awareness of safety confirmation system g major natural disasters. 100% of planned drills held, response emained at a high level	0	■ Continue to hold drills to increase awareness, aim to keep response rate high	P83		
	icted a regular review of the BCP to maintain an up-to-date BCP rthquakes directly beneath the greater Tokyo area	0	■ Create unified BCP for the Group that addresses various risks	P83		
syster	ained, managed, and improved information management ns, updated information management regulations governing email usage not applied in some cases	Δ	■ Maintain and entrench information management standards ■ Promote effective use of information, retrain employees on scope of confidential disclosures ■ Better understand and fix problems related to email usage	P84–85		

Material Issues/2018 Results & 2019 Issues and Goals

Material issues	ESG fields	Key initiatives	Issues and goals of FY2018/12		
		Promotion of environmental management	Develop and produce environmentally friendly products	Stably supply i-Line photoresists for power semiconductors Develop materials for next-generation power semiconductors	
			Eradicate environmental accidents that affect external parties	■ Number of environmental accidents: Severe accidents: Zero	
			Proactive response to new environmental regulations	Accurately respond to regulations in Japan and abroad, address new environmental regulations	
			Proactive disclosure of environmental information	■ Proactively disclose information Publish the CSR Report and Annual Report, and disclose environmental information on the website	
			Create an environmental ISO organization and systems	■ Build a stronger environmental system	
			Improve energy-related CO ₂ emissions per base unit [Medium-term target] Reduce energy-related CO ₂	■ Reduce CO ₂ emissions (per base unit) by 9 points compared with 2009	
			emissions (per base unit) by 10 points by 2019 compared with 2009 (reduction of 1 point annually)	■ Reduce energy-related CO ₂ emissions (per base unit) by at least 1 point from the previous year	
		Address climate	Improve energy consumption per base unit [Medium-term target] Reduce energy consumption	■ Reduce energy consumption (per base unit) by 9 points compared with 2009	
Environmental		change issues	(per base unit) by 10 points by 2019 compared with 2009 (reduction of 1 point annually)	■ Reduce energy consumption (per base unit) by at least 1 point compared with the previous year	
protection			Improve energy consumption per base unit in distribution	■ Reduce energy consumption (per base unit) by at least 1 point compared with the previous year	
	Environment (E)		Measures to prevent global warming at overseas manufacturing sites	■ Develop production activities from standpoint of energy conservation	
		Promote resource recycling	Initiatives to address water risk	■ Reduce water pollution risk by reassessing water drainage paths	
			initiatives to address water risk	■ Examine ways to reduce water usage in regions with high water risk	
			Reduce industrial waste [Medium-term target] Reduce industrial waste (per	■ Reduce industrial waste (per base unit) by 3 points compared with 2015 and by 1 point compared with the previous fiscal year	
			base unit) by 5 points by 2020 compared with 2015 (reduction of 1 point annually)	■ Reduce industrial waste disposed in landfills Maintain zero emissions (keep less than 1%)	
		Preserve air, water and soil environments	Prevent air, water and soil pollution	■ Prevent air, water and soil pollution Keep under operational thresholds	
			Countermeasures against ozone-depleting substances	■ Manage CFC leakage volume through proper management of equipment Promote switch to alternative CFC	
			Comply with PRTR Law	■ Conduct survey for reducing PRTR-regulated substances	
		Preserve biodiversity	Improve awareness of biodiversity based on TOK Biodiversity Protection Declaration and encourage participation in related activities	■ Promote understanding of the importance of preserving biodiversity	
Chemical		Precisely address laws and regulations	Carry out appropriate and reliable management of chemical substances	Obtain information about revisions to laws and regulations, maintain deployment procedures Maintain upstream management system	
substance management			Properly comply with PCB Special Measures Act	■ Properly collect and store PCB-containing equipment, quickly dispose of PCB waste (low and high concentrations)	
Occupational health and safety/ Security and disaster	Social (S)	Occupational health and safety/ Reduction of risks posed by chemical	Foster a safety culture	■ Implement preventive measures based on actual occupational accidents	
			Safety education and training, disaster drills	■ Systematically implement emergency response training ■ Periodically implement environmental awareness training ■ Prevent environmental accidents and workplace accidents caused by third-party vendors	
prevention		substances	Promote risk assessment in handling chemical substances	■ Strengthen initiatives for reducing risk in handling highly corrosive chemical substances	
			Zero workplace accidents	■ Maintain zero workplace accidents	

- [Self-assessment of goal achievement] − ○ Took steps, achieved results △ Took steps, but need to do more X Did not take steps

Main achievements and progress in FY2018/12	Evalu- ation	Issues and goals of FY2019/12	Pages	Related SDGs
■ Stably supplied i-Line photoresists for power semiconductors	0	■ Stably supply i-Line photoresists for power semiconductors	P30–31 P47	
■ Number of environmental accidents: Severe accidents: Zero	0	■ Number of environmental accidents: Severe accidents: Zero		
 ■ Unified the formats of legal and other required lists company-wide ■ Reviewed procedures for ascertaining compliance with laws and regulations 	0	■ Introduce an electronic manifest	P44–46 P98–101	
■ Published the CSR Report 2018 and Annual Report 2017/12, and disclosed environmental information on the website	0	Proactively disclose information Publish the Integrated Report and disclose environmental information on the website		
■ Created the framework for a new structure to build a stronger environmental system	0	■ Launch and start operating the company-wide environmental committee		
■ Reduced CO ₂ emissions (per base unit) by 3 points compared with 2009	×	■ Reduce CO ₂ emissions (per base unit) by 10 points compared with 2009	P92-93	. A
■ Increased CO ₂ emissions (per base unit) by 3 points compared with the previous year	×	■ Reduce energy-related CO₂ emissions (per base unit) by at least 1 point from the previous year	P92–93	7
■ Reduced energy consumption (per base unit) by 15 points compared with 2009	0	■ Reduce energy consumption (per base unit) by 10 points compared with 2009	P92-93	11 11 11 11 11
■ Energy consumption (per base unit) increased by 2 points compared with the previous year	×	■ Reduce energy consumption (per base unit) by at least 1 point compared with the previous year	P92-93	AB46
■ Reduced energy consumption (per base unit) by 6 points compared with the previous year	0	■ Reduce energy consumption (per base unit) by at least 1 point compared with the previous year	P92-93	° CO
■ Developed production activities from standpoint of energy conservation	0	■ Develop production activities from standpoint of energy conservation	P93	13 1111
■ Started a project to reduce water risks and examined plans to reduce		■ Create measures to prevent water pollution	14 %	
water risks and water usage, including a reassessment of water drainage paths at all sites	Δ	■ Set targets and propose plans for initiatives	P94–95	160
■ Reduced industrial waste (per base unit) by 17 points compared with 2015 and by 2 points compared with the previous fiscal year	0	■ Reduce industrial waste (per base unit) by 4 points compared with 2015 and by 1 point compared with the previous fiscal year	P96–97	<u>•</u> ==
■ Industrial waste disposed in landfills ⇒ less than 1% Achieved zero emissions	0	■ Industrial waste disposed in landfills ⇒ less than 1% Achieve zero emissions	1 00 07	
■ Incidents where operational thresholds were exceeded: None	0	■ Incidents where operational thresholds are exceeded: None		
■ Estimated CFC leakage volume ⇒ 23t-CO ₂ Examined switch to equipment that uses alternative CFC	Δ	■ Manage CFC leakage volume through proper management of equipment ■ Promote switch to equipment that uses alternative CFC	P98–99	
■ Reviewed production processes and improved sealing capability	0	■ Review factors for PRTR-regulated substance emissions and transportation volume		
 ■ Employee training: 208 people participated in total ■ Dispatched employees to participate in activities at the Kanagawa Trust Midori Foundation 	0	 ■ Implement ongoing employee training ■ Continue activities to preserve forests 	P99	
■ Updated information on whether they contain substances subject to assessment and product compositions ■ Created a system that included products under development	0	■ Maintain upstream management system ■ Continue to strengthen and operate chemical substance management system	P100–101	C IS
■ Disposed 119kg (82%) of 146kg of PCB waste (high concentration) ■ Created lists and summaries for all sites	0	Finish disposal of all PCB waste (high concentration) in April 2019 Create a roadmap for disposing PCB waste (low concentration) by 2027 deadline, and properly implement the plan	P103	17 ************************************
■ Created guidelines to prevent accidents based on past incidents, horizontally rolled out countermeasures	0	■ Prepare to acquire ISO45001		
■ Implemented emergency response training ■ Implemented environmental awareness training ■ Examined content of Third-party Vendor Management Guidelines as common company-wide rules governing matters to be confirmed before/after projects and matters to be transferred to third-party vendors, in order to prevent environmental accidents and workplace accidents during construction, caused by third-party vendors working at TOK sites	Δ	 Systematically implement emergency response training Periodically implement environmental awareness training Create Third-party Vendor Management Guidelines and raise awareness at each site 	P102–103	3
■ Strengthened safety measures for the handling of highly corrosive chemical substances	0	■ Improve risk assessments (take action to reduce high-severity risks at each site) ■ Enhance level of safety through collaboration with external organizations		
■ Injuries resulting in lost workdays: 2	×	■ Maintain zero workplace accidents		

Corporate Governance

We will further strengthen corporate governance, looking to sustainably enhance our corporate value.

Message from Independent Officers

Risk management in a time of diversifying risks and huge losses

One of TOK's missions is to be a responsible supplier of products when needed and without delay. To fulfill this responsibility, TOK has made preparations for unforeseen events by repeatedly conducting evacuation drills and desktop drills, in addition to formulating detailed plans as a part of its Business Continuity Plan (BCP) for quickly restoring operations and securing alternative production capacity in the event of a natural disaster, which have been increasing in size and severity. Moreover, TOK must further increase the effectiveness of its BCP to prepare for an earthquake directly beneath the greater Tokyo area or an earthquake along the Nankai Trough, which is said to have a 70% likelihood of striking within the next 30 years. Additionally, it is becoming more important to manage new risks in an advanced information society, such as the risk of information leaks, hacking, data falsification, and other new risks related specifically to Al. Furthermore, geopolitical risks have become unprecedented in size, and could have a major impact on governments and economies around the world. In this time of diversifying risks, it is vital to have a corporate culture where all group employees think of risks themselves. Moreover, the Company must instill in its organization a strong culture to address risks and minimize the unexpected and opportunity losses. I will proactively advise on this matter as well.



Kazumasa Fukada Outside Auditor

Systems that bring out the best abilities of everyone are the driving force

Most corporate scandals that emerged in the latter half of the Heisei era (1989-2019) have been recognized as an adverse outcome of "Japanese-style organizations" that were a driving force in the Showa era (1926–1989). The primary issue faced by corporations has changed from volume growth to strengthening responsiveness to change. In terms of organizational culture, team spirit is still a prerequisite, and high levels of employee autonomy are now needed instead of an organizationfirst approach. A system that brings out the best abilities of each employee will become a new driving force behind improvements in the value of R&D and increases in productivity. At the same time, such a system will enhance the sophistication of corporate governance and risk management by realizing genuine diversity management that can deal with changes in the external environment. One of the Company's strategies in the "TOK Medium-Term Plan 2021" is to strengthen human resources who can perform research, make decisions, and take actions on their own initiative. This represents a major step toward realizing such a system, and I will do my best to bring this strategy to a successful conclusion as an independent officer.



Koichiro Takahashi Outside Auditor

Front lines are the key to solutions

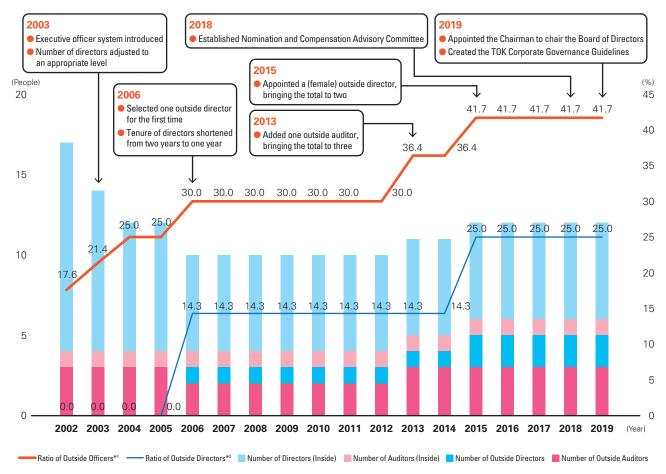
My name is Nobuyuki Takeuchi, and I was appointed an outside auditor in March 2019. I have served as an officer and director at a major trust bank in Japan, and also as the president and CEO of its group company. I currently hold the position of outside corporate auditor at a different company. Based on my experience, I aim to contribute, even if only in a small way, to the sustained value creation at TOK.

Currently, I am absorbing all the information and knowledge I can about TOK with an eye on how the Company addresses issues common to all corporations, regardless of their sector. With "front lines are the key to solutions" as a motto based on the business experience I have accumulated so far, I aim to provide audits and advice that supports the development of TOK while truly gaining an understanding of the Company's stakeholders, including its shareholders, investors, executives and employees, without letting any preconceptions lead me astray.



Nobuvuki Takeuchi Outside Auditor

TOK's Path to Stronger Corporate Governance



- *1 Ratio of Outside Officers = (Number of Outside Directors + Number of Outside Auditors) / (Number of Directors + Number of Auditors)
- *2 Ratio of Outside Directors = Number of Outside Directors / Number of Directors

Basic Concept

We have had a management vision of aiming to be a globally trusted corporate group by inspiring customers with high value-added products that have satisfying features, low cost and superior quality, under our management principles since our establishment. ("Continue efforts to enhance our technology," "Raise the quality levels of our products," "Contribute to society," and "Create a frank and open-minded business culture.") We believe that realizing this will lead to benefits shared by shareholders and all other stakeholders and will improve corporate value.

Realizing the management vision is the means to maintain sound and transparent management and to enhance operational efficiency, with speeding up of the decision-making process as one of the most important management issues.

One of TOK's material issues and company-wide strategies in the "TOK Medium-Term Plan 2021" is improving corporate governance. The Company created and published the TOK Corporate Governance Guidelines in April 2019 as a compilation of its basic policies and approaches to continuously improve corporate governance.

→ "TOK Corporate Governance Guidelines" https://www.tok.co.jp/content/download/4719/77678/file/gov_guidline0403.pdf (in Japanese)



Type of System

As a company with corporate auditors, TOK employs the corporate auditor system. We are taking actions to strengthen audits performed by the corporate auditors with the greater authority endowed by the Companies Act of Japan. In addition, TOK is taking advantage of the benefits of reforms to its Board of Directors, establishment of the executive officer system, and the election of an independent outside director to fortify the management decision-making and supervisory function and the business execution function while clarifying responsibility for performing these functions. We are convinced that these measures are the most effective means to strengthen management and upgrade our corporate governance.

8 Shareholders' Meeting Election/Dismissal Flection/Dismissal Flection/Dismissa Accounting Audit Cooperation Internal Control Audit Monitoring **Board of Directors,** Accounting Auditor **Board of Auditors,** Directors (Auditing Firm) Auditors Audit Cooperation Advise/Repor Conference Election/Dismissa Advice Nomination and Compensation Report **Internal Auditing** Representative Director Direction Legal Advisor Committee Flection/Dismissal Direction Advice Committee of Advice Officers, Officers Internal Control Assessment Internal Audit Advice Departments Corporate New Business General Affairs Accounting and Manufacturing Process Equipment Research and Domestic/Overseas Marketing Dept. Planning Dept Development Dept. Dept. Finance Dept. Dept. Manufacturing Dept. Development Dept group companies

Diagram of Corporate Governance System (As of March 28, 2019)

Directors and Board of Directors Diagram Diagram

To quickly respond to changes in the operating environment and clarify accountability for the directors concerning operating results in each fiscal year, we have shortened the tenure of the directors from two years to one year since June 2006. With the aim of enhancing the transparency of the Board of Directors and strengthening the corporate governance system, the Company selected one independent outside director in June 2006 and another in June 2015. TOK currently has two independent outside directors.

In principle, the director system has a flat structure with two levels: representative director and directors. This creates a framework that allows the Board of Directors to fulfill its primary responsibilities by effectively reaching management decisions and supervising the Company's management.

As of March 28, 2019, we had eight directors, including two outside directors. In principle, the Board of Directors meets once a month on a regular basis and holds extraordinary meetings as required. The meetings are held to decide important matters of business execution, with the goal of supervising the business duties executed by the representative director and directors

The number of directors on the Board of Directors is set to not exceed 10 directors in the Company's Articles of Incorporation. The articles also stipulate that resolutions for the election of directors must be approved by a non-cumulative majority vote at a General Meeting of Shareholders with a third or more of the shareholders in attendance.

Assessment of the Effectiveness of the **Board of Directors**

Our directors and auditors conduct an assessment and discuss at the Board of Directors using an anonymous self-evaluation questionnaire format of the composition of the Board of Directors; the effectiveness of the Board of Directors; information related to the Board of Directors; the decision-making process; and external communications. This offers an analysis and assessment of the effectiveness of the Board of Directors as a whole.

The following opinions were received during the fiscal year ended December 31, 2018, the fourth time the assessment has been conducted:

- having an impartial composition offering inside directors with thorough understanding of each field, and a good balance between experience and actual performance
- maintaining diversity by incorporating outside directors with differing backgrounds, knowledge and expertise
- the size of the Board of Directors, frequency of meetings. matters discussed, and time spent on discussions are all appropriate
- in an atmosphere of frank and open discussions, the outside directors and outside auditors continue to positively contribute to high levels of transparency and rapid decision-making
- · generally good self-improvement and in-house check-andbalance functions

However, the following criticisms were also made:

- authority should be delegated to deepen discussions about business strategy
- the reporting system should be improved in terms of risk analysis and important matters

Considering this feedback, the Company will continue to focus on further improving the effectiveness of the Board of Directors.

Review of Decision-Making Authority of the Board of Directors

Within the context of strengthening the functions of the Board of Directors amid changes in the business environment, TOK has started a review of the decision-making authority of the Board of Directors, including authorities delegated to the Committee of Officers. The Company modified decision-making authorities in April 2019 and has started to examine changes to decisionmaking authorities at subsidiaries inside and outside Japan with the aim of implementing these changes in January 2020.

Establishment of Independent Officer Meetings

TOK has established meetings for its independent officers, currently two outside directors and three outside auditors. They are held with the same frequency as Board of Directors meetings. The standing statutory auditor also attends the meetings.

The meetings aim to strengthen the effectiveness and add vigor to deliberations at the Board of Directors through:

- additional explanations on topics from management meetings that were not on the agenda of the Committee of Officers
- exchange of opinions on themes to be taken up at the next Board of Directors meeting
- explanations of cutting-edge technology matters

Officers and Committee of Officers Diagram 2

While taking steps to strengthen the Board of Directors' functions in management decision making and supervision, TOK has the Committee of Officers made up of all officers to reinforce its business execution capabilities. The committee members include the chief executive officer, the chief operating officer, senior executive officers, executive officers and officers. Those officers' ranks derive from differences in business responsibilities and other considerations.

As of March 28, 2019, the Company had 14 officers, including five officers also serving as directors. In principle, the Committee of Officers meets once a month on a regular basis and holds extraordinary meetings as required. The meetings are held to share instructions and orders resolved by the Board of Directors and information among the officers, and with the goal of planning management strategies, deliberating and approving certain important decisions that are not subject to a Board of Directors resolution.

Auditors and Board of Auditors Diagram 6

As of March 28, 2019, we had four auditors, including three outside auditors. In principle, the Board of Auditors meets once a month on a regular basis and holds extraordinary meetings as required. The auditors attend the Board of Directors, the Committee of Officers, and other important meetings. Their duties are performed in accordance with auditing standards (Corporate Auditor Auditing Regulations), the auditing policy, the division of tasks, and other considerations. In addition, the auditors check the performance of directors by receiving reports from directors and other corporate staff, and requesting an explanation if necessary. For financial audits, the auditors receive reports from the accounting auditor and use other

means, including requesting an explanation if necessary, to verify the suitability of financial accounting methods and the results of these audits.

To improve the effectiveness of corporate audits, and to ensure smooth execution of audit duties, one person is also assigned to assist the auditors.

Internal Auditing Div. Diagram 4

The Internal Auditing Division is under the direct control of the president. In addition to internal audits, this division offers suggestions, proposals, and advice for continuous improvement through evaluations of the effectiveness of internal controls in financial reporting.

Accounting Auditor (Diagram 6)

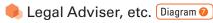
The accounting auditor conducts accounting audits of the Company from an impartial and independent standpoint. There were two certified public accountants who conducted the accounting audit of the Company in the fiscal year ended December 31, 2018: Hiroki Kitagata and Masato Shoji, both of whom are designated limited liability partners and executive members of accounting auditor Deloitte Touche Tohmatsu LLC. Moreover, there were six other certified public accountants, two junior accountants, and 14 other people who assisted in conducting the Company's accounting audit. The details of the remuneration of the Company's certified public accountants (Deloitte Touche Tohmatsu LLC) for conducting the accounting audit during the fiscal year ended December 31, 2018 are as

• Remuneration in relation to the services set forth in Article 2, Paragraph 1 of the Certified Public Accountants Act (Act No. 103 of 1948):



Nomination and Compensation Advisory Committee (Diagram 6)

In December 2018, TOK established the Nomination and Compensation Advisory Committee, chaired by an independent outside director with half of its members consisting of independent outside directors, to enhance corporate governance by strengthening the fairness, transparency, and objectivity of procedures related to the nomination, dismissal, and remuneration of directors.



The Company has concluded advisory contracts with a number of law firms, and receives appropriate advice from legal advisors in situations requiring legal assessment.

Efforts to Invigorate the Shareholders' Meeting and Facilitate Smooth Exercise of Voting Rights Diagram 3

To facilitate the exercise of voting rights by shareholders, we hold our General Meeting of Shareholders in March, when most other Japanese companies' shareholder meetings are not hosted at the same time, set a period for reviewing the resolutions for approval by the meeting that is longer than the number of days required by law, and publish the Notice of Convocation of the General Meeting of Shareholders on our website ahead of time, 28 days (four weeks) before the day of the meeting. It is also sent out early (21 days (three weeks) before the day of the meeting).

To enable the shareholders in attendance to better understand the proceedings of the General Meeting of Shareholders, we use narrated video footage to report the items up for resolution. In addition, we also upload the Notice of Convocation, Notice of Resolution, and Results of the Exercise of Voting Rights to the General Meeting of Shareholders for disclosure on the Company website.

Cooperation between the Auditors, Internal Auditing Division and Accounting Auditor

Internal Audit and Corporate Audit Diagram 2

Cooperation between the auditors and accounting auditor

The auditors receive reports on the result of accounting audits and other work from the accounting auditor (auditing firm) four times a year. They also receive an explanation of the auditing plan from the accounting auditor once a year. In addition, the auditors also accompany the accounting auditor to the factory audits the accounting auditor conducts if necessary, as well as examine the auditing method of the accounting auditor. Apart from this, the auditors also exchange information and opinions with the accounting auditor as required.



Relationship between internal audits, corporate audits, accounting audits and Internal Auditing Division and the internal control department

The TOK Group's internal control department comprises divisions in charge of compliance and risk management in addition to the Internal Auditing Division, which is in charge of evaluating the effectiveness of internal control as it pertains to internal audits and financial reporting.

The Internal Auditing Division, as a part of the internal control department, reports the results of internal audits to the president, auditors and the relevant divisions. In addition, it provides the relevant divisions with suggestions, proposals and advice as required.

As for corporate audits, the auditors report the results of their corporate audits of directors' execution of duties to the president and the accounting auditor (auditing firm). In conducting internal control audits, the auditors receive evaluation reports and other information from the internal control department as necessary.

The accounting auditor (auditing firm) reports the results of its accounting audits to the president and auditors. It also holds discussions with the internal control department to help them with internal control audits.

Election of Outside Directors and Outside Auditors

The Company has eight directors, of whom two are outside directors, as well as four auditors, of whom three are outside auditors.

The Company has established the following criteria and policies regarding independence in the election of outside directors and outside auditors.



Independence Standards for Outside Officers

Independent outside officers under this criteria are defined as those who fulfill the legal requirements of an outside officer, and to whom any one of the following does not apply.

- a. A person who executes the business of the Company or its consolidated subsidiaries (the "Group"), or who did so for a period of 10 years before being appointed.
- b. A person/entity for which the Group is a major client (Note 1), or who executes the business of such a person/entity.
- c. A major customer of the Group (Note 2) or a person who executes the business of such customer.
- d. A major lender of the Group (Note 3) or a person who executes the business of such lender.
- e. A person who, apart from receiving officer compensation from the Group, belongs to a consulting, accounting, or legal firm (corporate entity, cooperative, or other such group) receiving large amounts of cash or other assets (Note 4) from the Group.
- f. A person to whom the above b. through e. applied in the previous three years.
- g. A person who in the past three years has received donations from the Group averaging more than ¥3.0 million per year.
- h. Major shareholders of the Group (Note 5) or a person who executes the business of such shareholder.
- i. A person who executes the business of a company with a mutual relationship between outside officers. (Note 6)
- j. A person whose spouse or a relative within the second degree of kinship come under any one of above items a. through i.
- k. A person who has served a total of more than eight years as an outside officer.
- I. Regardless of the above provisions, a person for whom it is deemed likely that conflicts of interest will arise with the Company.

Notes: 1. A person/entity for which the Group is a major client, means a supplier that provides the Group with products or services, the amount of which transactions averaged more than ¥10.0 million per year over the past three years and represented more than 2% of the supplier's consolidated annual revenue in the most

- 2. A major customer of the Group means a customer to which the Group provides products and services, the amount of which transactions averaged more than ¥10.0 million per year over the past three years and represented more than 2% of the Group's consolidated annual revenue in the most recent fiscal year
- 3. A major lender of the Group means a financial institution which has lent an amount equivalent to more than 2% of the Group's consolidated total assets.
- 4. A large sum of cash or other assets, means assets that averaged more than ¥10.0 million per year over the past three years, and which in the most recent fiscal year had an economic value in excess of 2% of said consultant or accounting or legal expert's consolidated annual revenue. (In the event the beneficiary of said assets is a corporation, association or other organization, then assets that averaged more than ¥10.0 million per year over the past three years, and which in the most recent fiscal year had an economic value in excess of 2% of said organization's consolidated annual revenue).
- 5. Major shareholder, means a shareholder with a ratio of voting rights of more than 10%.
- 6. A mutual relationship between outside officers means a relationship in which a person who executes the business of the Group is also an outside officer at another company, and in which a person who executes the business of said outside company is also an outside officer of the Company.

Reasons for the Election of Inside Directors

Name	Reasons for election
Ikuo Akutsu Representative Director Chairman	Akutsu has led the management of the TOK Group ("the Group") for many years as its top executive and contributed to the Group's further development through the measures in the Medium-Term Plan. Thus, Akutsu is qualified to continue strengthening corporate governance of the Company and to supervise the execution of business.
Noriaki Taneichi Representative Director President and Chief Executive Officer Nomination and Compensation Advisory Committee Member	Taneichi is well versed in not only the Company's existing business areas but also in new business areas. Since assuming the position of Representative Director, President and Chief Executive Officer with the launch of the "TOK Medium-Term Plan 2021," the three-year medium-term plan starting from fiscal year 2019, Taneichi has led the management of the Group and contributed to medium- to long-term improvement of the Group's corporate value and its sustainable growth through the measures in the Medium-Term Plan. Thus, Taneichi can be expected to continue contributing to the management of the Company.
Harutoshi Sato Director	Sato has held important positions in the Group, serving in such roles as representative at the U.S. subsidiary, person responsible for quality assurance, and person responsible for product development before assuming the position of Department Manager, Research and Development Dept. Owing to this experience, he is well acquainted with the Company's business characteristics and customers and consequently possesses necessary and sufficient knowledge of such matters as important decision-making by the Board of Directors and supervision of duties executed by other Directors. Thus, Sato can be expected to continue contributing to the management of the Company.
Kunio Mizuki Director Nomination and Compensation Advisory Committee Member	Assuming the position of Department Manager of the General Affairs Dept. after serving as General Manager of the General Affairs Div., Mizuki has been working to strengthen corporate governance, including development of the information management system, the contingency management system, and the compliance system as well as improvement of investor relations. Furthermore, through his experience with the business operations in his charge, he possesses necessary and sufficient knowledge of such matters as important decision-making by the Board of Directors and supervision of duties executed by other Directors. Thus, Mizuki can be expected to continue contributing to the management of the Company.
Nobuo Tokutake Director	Tokutake has held important positions in the Group, serving in such roles as product developer, representative at the U.S. subsidiary, and Chairman and President of the Taiwanese subsidiary before assuming the position of Department Manager, Manufacturing Department. Owing to this experience, he is well acquainted with the Company's business characteristics and customers and consequently possesses necessary and sufficient knowledge of such matters as important decision-making by the Board of Directors and supervision of duties executed by other Directors. Thus, Tokutake can be expected to continue contributing to the management of the Company.
Keiichi Yamada Director	Yamada has knowledge and rich experience in product development, sales and marketing, which he developed in previous positions. In addition, since joining the Company he has mainly been engaged in sales and marketing of mainstay products and is well acquainted with the electronic materials industry and characteristics and customers of the Company's business based on such roles as Department Manager of the Marketing Dept. Furthermore, he possesses necessary and sufficient knowledge of such matters as important decision-making by the Board of Directors and supervision of duties executed by other Directors. Thus, Yamada can be expected to continue contributing to the management of the Company.

Reasons for the Election of Outside Directors

Name	Reasons for election
Hiroshi Kurimoto Nomination and Compensation Advisory Committee Chairman	Kurimoto was elected on the expectation that he would continue supervising TOK's management from an objective and neutral point of view, based on his abundant experience and considerable insight as a business executive of a listed company, and contribute to strengthening corporate governance by advising the Company on management in general.
Noriko Sekiguchi Nomination and Compensation Advisory Committee Member	Sekiguchi was elected to contribute to corporate governance and TOK's management from an objective and neutral point of view continuously, based on her professional expertise in accounting and abundant hands-on business experience with several companies as a certified public accountant, and her thorough understanding of internal control, including from her experience as a member of external committees investigating fraudulent accounting at numerous listed companies, and advise the Company on management in general.

Reasons for the Election of Outside Auditors

Name	Reasons for election and Independence
Kazumasa Fukada	Fukada was elected to contribute to auditing TOK's management from an objective and neutral point of view, based on his abundant experience and considerable insight as a business executive including at financial institutions. Fukada was once a business executive with Tokio Marine & Nichido Fire Insurance Co., Ltd., which owns stock in TOK and conducts insurance transactions with the Company under routine and standard business conditions. However, these capital and business relationships were deemed not to affect Fukada's independence as an outside auditor of TOK.
Koichiro Takahashi	Takahashi was elected to contribute to auditing TOK's management from an objective and neutral point of view, based on his abundant experience and considerable insight as a business executive including at financial institutions. Takahashi was once a business executive with Meiji Yasuda Life Insurance Company, which owns stock in TOK and conducts insurance transactions with the Company under routine and standard business conditions. However, these capital and business relationships were deemed not to affect Takahashi's independence as an outside auditor of TOK.
Nobuyuki Takeuchi	Takeuchi was elected to contribute to auditing TOK's management from an objective and neutral point of view, based on his experience as a corporate auditor of another company as well as his abundant experience and considerable insight as an executive of financial institutions. Takeuchi was once a business executive with Mitsubishi UFJ Trust and Banking Corporation, which owns stock in TOK and conducts cash deposit, stock administration agent and other transactions with the Company under routine and standard business conditions. However, these capital and business relationships were deemed not to affect Saito's independence as an outside auditor of TOK.

The Main Activities of Outside Directors and Outside Auditors

Name	Attendance record and activities at Board of Directors and Auditors meetings
Hiroshi Kurimoto Outside Director	Kurimoto attended all 15 of the 15 Board of Directors meetings (attendance rate 100%) held during the fiscal year ended December 2018. He voiced timely opinions as required when discussing resolutions, based on his broad experience and abundant expertise as a business executive.
Noriko Sekiguchi Outside Director	Sekiguchi attended all 15 of the 15 Board of Directors meetings (attendance rate 100%) held during the fiscal year ended December 2018. She voiced timely opinions as required when discussing resolutions, based on her professional expertise in accounting and abundant hands-on business experience with several companies as a certified public accountant.
Hiroshi Saito Outside Auditor	Saito attended all 15 of the 15 Board of Directors meetings (attendance rate 100%) and all 14 of the 14 Board of Auditors meetings (attendance rate 100%) held during the fiscal year ended December 2018. He voiced and raised timely opinions and questions as required at the meetings, based on his abundant experience and considerable insight as a business executive including at financial institutions.
Kazumasa Fukada Outside Auditor	Fukada attended all 15 of the 15 Board of Directors meetings (attendance rate 100%) and all 14 of the 14 Board of Auditors meetings (attendance rate 100%) held during the fiscal year ended December 2018. He voiced and raised timely opinions and questions as required at the meetings, based on his broad experience including at a financial institution, and his abundant expertise as a business executive.
Koichiro Takahashi Outside Auditor	Takahashi attended all 15 of the 15 Board of Directors meetings (attendance rate 100%) and all 14 of the 14 Board of Auditors meetings (attendance rate 100%) held during the fiscal year ended December 2018. He voiced and raised timely opinions and questions as required at the meetings, based on his abundant experience and considerable insight as a business executive including at financial institutions.

The Major Decisions and Agenda of Board of Director Meetings in the Fiscal Year Ended December 2018

- ◆ Enhanced manufacturing equipment for high-purity chemicals mainly used in the cutting-edge miniaturization process in semiconductor manufacturing (TOKYO OHKA KOGYO AMERICA/TOK TAIWAN)
- ◆ Confirmed progress on plans for new R&D Building (to be completed in 2019 at the Sagami Operation Center)
- ◆ Updated aging facilities (Sagami Operation Center)
- ◆ Devised the vision, company-wide strategies and key measures for the "TOK Medium-Term Plan 2021"
- ◆ Updated the shareholder return/dividend policy, balance sheet management policy, etc.
- ◆ Confirmed progress on Group Management System (GMS)
- ◆ Reviewed measures for EHS (environmental, health and safety) and reinforced measures at domestic and overseas business sites
- ◆ Debated matters related to new personnel measures and employee training programs

Remuneration of Directors and Auditors

TOK's guidelines for remunerating its directors, senior management and auditors are as follows. The guidelines focus mainly on complying with laws and regulations and maintaining sound management, while also seeking to set remuneration at a level that satisfies the expectations of shareholders and other stakeholders by increasing earnings and corporate value.

Directors' Remuneration

Directors' remuneration consists of a fixed salary as base remuneration, a bonus linked to financial performance in the fiscal year, and stock options linked to results, enhancement of corporate value and stock price performance as an incentive to enhance drive and motivation to increase the stock price.

The fixed salary, bonus and stock compensation-type stock options are decided based on the Policy and Procedures for Deciding the Remuneration of Directors and Senior Management ("the policy and procedures for remuneration"), within a remuneration framework (up to ¥420 million per year) approved by the General Meeting of Shareholders.

Outside directors do not receive stock compensation-type stock options (subscription warrants) in consideration of their roles

Remuneration for Senior Management

Remuneration for senior management consists of a fixed salary as base remuneration, a bonus linked to financial performance in the fiscal year, and stock compensation-type stock options linked to medium- to long-term performance.

The fixed salary, bonus and stock compensation-type stock options are decided based on the policy and procedures for remuneration.

Policy and Procedures for Deciding the **Remuneration of Directors and Senior Management**

The Nomination and Compensation Advisory Committee chaired by an independent outside director drafts proposals for deciding the remuneration (fixed salary and bonuses) of directors and senior management. The committee takes care to set appropriate percentages of cash remuneration and stock remuneration, as well as the ratio of remuneration linked to medium- to long-term performance, while paying due consideration to the degree of contributions to the medium-term plans and budgets in the previous fiscal year of the directors and senior managers, as well as the self-evaluations of the Board of Directors, in addition to the TOK Group's financial performance.

The committee also drafts proposals for deciding the weighting of stock compensation-type stock options as medium- to longterm performance-linked remuneration for directors (excluding outside directors) and senior managers. Based on these proposals, the Board of Directors makes the final decision.

Auditors' Remuneration

Auditors are responsible for supervising and auditing business duties executed by the directors, in a position that is independent of the Board of Directors. They receive only a basic remuneration in the form of a basic salary, which is decided on and paid out following discussions among the auditors, within a remuneration framework (of within ¥72 million per year) approved by the General Meeting of Shareholders.

Remuneration Totals Paid to Directors and Auditors (Fiscal Year Ended December 31, 2018)

Position	Total remuneration		Number of eligible			
	(Millions of yen)		Stock options			
Directors (Excluding outside directors)	170	136	21	13	6	
Auditors (Excluding outside auditors)	22	22	_	_	1	
Outside directors and auditors	47	46	_	1	5	

Note: The amounts for total remuneration and total of various types of remuneration for directors (excluding outside director) do not include the portion paid as salary for employee activities undertaken in parallel with director activities

Internal Control System

TOK endeavors to augment the Group's internal control systems by strengthening management at overseas subsidiaries that have a growing presence and maintaining its compliance system. Below is a summary of our compliance system, risk management system, business execution reporting and other group internal control systems, as well as systems for the retention and management of information, and information management structure.

→ For further details on internal control, please see the Corporate Governance Report at https://www.tok.co.jp/content/download/4591/76284/file/gov_report190627.pdf (in Japanese)

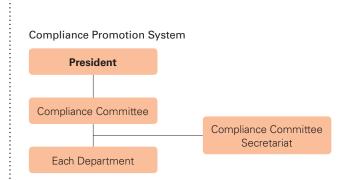


Compliance

The TOK Group makes concerted efforts to enhance its compliance system from the basic understanding that maintaining relationships of trust with all its stakeholders is a prerequisite for sustainable development as a corporation that coexists with society. We strive to improve awareness of compliance among all officers and employees to ensure strict compliance with laws and regulations, Company rules and social norms.

Compliance Promotion System and Standards of Conduct

Guided by the Compliance Committee, all employees at Group companies take action to promote compliance by participating in thorough training and related activities. We aim to improve awareness of compliance among all officers and employees. We have created the TOK Group Compliance Standards of Conduct to clarify shared values and standards of conduct, including for subsidiaries in Japan and overseas. We have created handbooks for the Compliance Standards of Conduct in the languages used by Group companies and distributed them to all officers and employees of Group companies.



Ongoing activities to instill compliance

To prevent compliance-related risks from emerging, it is essential that all officers and employees practice and adhere to compliance. The Company conducts its own unique compliance training that considers conditions at each department and site within the Group, and goes through a PDCA cycle to prevent risks from materializing. With the completion of the compliance training overseas in the fiscal year ended December 31, 2017, staff from the Compliance Committee Secretariat visited all domestic sites during the fiscal year ended December 31, 2018, providing compliance training to employees, including reminders about the internal reporting system.

Internal reporting system

TOK has an internal reporting system set up to facilitate the early discovery, remediation and prevention of compliance risks in business activities. When internal reports are made, we allow the internal reporter to choose who the report is made to, and we have a clearly stated policy of not dismissing or unfairly treating internal reporters, unless the report has been made for deceitful purposes.

In the fiscal year ended December 31, 2018, the TOK Group received three reports concerning labor conditions and the work environment, and private matters. After gaining a detailed understanding of the situation and those involved, based on an objective judgment of the situation, the Company provided guidance, took disciplinary action, and implemented training about proper behavior for those involved. The Company intends to enhance the internal reporting system to make it more accessible for employees.

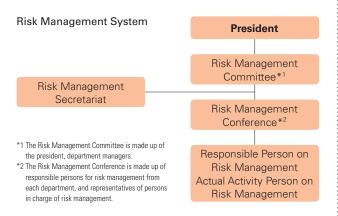


Risk Management

The Company's perpetual development depends on being able to precisely deal with various risks that have major impacts on business. Through communications with stakeholders, we strive to identify and prevent a variety of potential risks. If a risk emerges, we will take the necessary measures to minimize the negative impacts from the risk. In these and other ways, TOK maintains and improves its global risk management system.

Risk Management System

The Risk Management Committee plays a central role in reviewing the risk management system and formulating risk management policy. The Company has risk management regulations and a risk management manual for precisely dealing with various risks. Guided by this manual, we ensure that preventive measures are normally in place by managing business risk, public risk, and disaster and accident risk, and identifying and analyzing significant risks, as well as determining, executing, and reviewing countermeasures for these risks.



Initiatives to strengthen risk management system

Reaffirming the importance of contingency management after the Great East Japan Earthquake, the Group has taken steps to address various risks, including disasters and other accidents and environmental risks, since creating the Contingency Management Committee (current Risk Management Committee). In 2016, the TOK Group Risk Management Committee was established to deal with a broader range of risks in accordance with the Company's global expansion.

In the fiscal year ended December 31, 2018, TOK took action to reduce risks deemed high based on risk assessments at all sites, including group subsidiaries. As a result, the Company achieved 20% of its risk reduction goals. TOK will continue with activities to reduce new risks identified in the risk assessment and existing issues.

Strengthened crisis management

The Group believes business continuity planning begins with the safety of our employees. In Japan, TOK operates a safety confirmation system for confirming whether Group employees are safe in the event of natural disasters, including major earthquakes. Safety confirmation drills are conducted every year to ensure the smooth operation of this system and to raise awareness among employees. In the fiscal year ended December 31, 2018, 100% of the planned number of drills were held, and the response rate remained at a high level.

Large-scale natural disaster preparedness

Based on lessons learned from the Great East Japan Earthquake and the Kumamoto Earthquake, TOK has put in place a BCP that envisions damage simultaneously striking the Headquarters and multiple sites from earthquakes directly beneath the greater Tokyo area. TOK regularly reviews its BCP so it is grounded in reality by running desktop drills that simulate real-world damages that interrupt order taking and placement, product shipment, and cut off lifelines. In the fiscal year ended December 31, 2018, the Company reviewed alternative transportation options considering the damage caused by torrential rainfall in western Japan in July 2018, and finished a formulation of initial action guidelines applicable to all production sites of the Group, including overseas subsidiaries.

Improving Information Management

The environment surrounding information management is drastically changing. Leaks of information assets could greatly damage the competitive advantages of the TOK Group and threaten its existence as an ongoing concern. For this reason, reinforcing the information management system is a priority issue in terms of preserving corporate value and fulfilling our social responsibility. From this standpoint, we are redoubling our efforts in ensuring information security by establishing a PDCA cycle.

Information Management Policies

The TOK Group (comprising TOKYO OHKA KOGYO CO., LTD. and its subsidiaries, hereinafter collectively the "TOK Group") is implementing measures in line with the following policies, having positioned risk management related to information assets as a priority management issue to fulfill its corporate social responsibility.

Definition, protection, and effective utilization of information assets

1. With respect to all information assets held by the TOK Group, including managerial, client, marketing, personal, and technical information, the Group will comply with laws and regulations related to information security, other social norms, in-house rules and other guidelines, and protect the information appropriately. The Group shall only use the information to efficiently execute the operations of the Group, within the stipulated scope of authority, and for the prescribed purpose.

Update and maintain tools and security platforms

2. The TOK Group updates and maintains reasonable communications tools and security platforms to effectively utilize its information assets.

Organizational structure and organized activities

3. The TOK Group has established an Information Management Committee and will continue to build, maintain, and promote an information asset management structure properly governed for the overall Group.

Completeness, confidentiality, and availability

4. The TOK Group will identify and assess risks and continue to implement countermeasures and improvements as well as appropriately reduce information management risks through a range of human, physical, organizational, and IT-based measures to prevent leakage, falsification, theft, destruction, and other damage to the information assets held by the TOK Group.

Education

5. The TOK Group will implement in-house education regularly and continuously and work to raise awareness and keep everyone well informed of the in-house rules and other regulations.

Incident response

6. In the case that accidents and other incidents related to information security occur, the TOK Group will endeavor to minimize the damage from such incidents and implement measures to prevent their recurrence.

Audits and continuous improvements

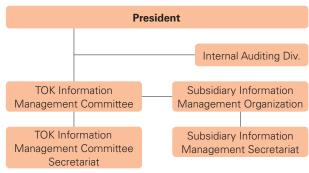
7. The TOK Group will implement regular audits and make continuous improvements as a part of its management of information assets.

Maintain, Manage, and Improve Information **Management Systems**

The Company has created the TOK Information Management Committee, headed by the Manager of the General Affairs Department and staffed by department managers of the TOK Group, including overseas affiliates and subsidiaries. The Committee decides on policies and measures related to information security and personal information protection. Key subsidiaries have established their own information management organizations, which collaborate under the guidance of the TOK Information Management Committee to strengthen information management systems across the TOK Group. In the fiscal year ended December 31, 2018, TOK updated its management regulations.

The Internal Auditing Division, which is independent of the TOK Information Management Committee, regularly audits compliance with rules and other matters, and reports the results to the president. If there are problems, improvement orders are issued to the audited divisions and the Information Management Committee. In this way the division works to improve our information management systems.

TOK Group Information Management Structure



Strengthen information management through working groups

The TOK Information Management Committee has identified key topics based on information management policy, and put working groups (WG) in charge of addressing each key topic in a bid to strengthen information management.

Working Groups for Information Management PDCA Cycle Trade Secrets WG/Training and Rules WG/Human Resources Related WG/ IT Development WG/Physical Security WG/Supplier WG



🛑 Group Management System (GMS)

The TOK Group's value creation has continued expanding within and outside of Japan. Since 2015, we have focused on the Group Management System as a way to tie this to steady enhancement of sustainable corporate value. After the two years of the project phase, since 2018, we have shifted to the fixing phase where the project results will become established aspects of the TOK Group's overall global structures and frameworks.

Initiatives in FY2018/12

Through a self-evaluation of development and operation of GMS in six fields and two subsidiaries, more than 30 matters in need of correction were identified and corrective actions were taken.

The progress rate of resolutions was 98%, thanks to the ongoing collection and resolution of key issues for the Group.

TOK also added to and revised its rules and processes, creating and modifying more than 70 documents.

We updated documentation pertaining to regulations and standards for basic information management in the Group, and cross-referenced Group documents to documentation at each company.

March

Added Supply Chain Management (SCM) as a GMS field

September

Modified information management rules in GMS documentation

October

Created information management regulations to replace confidentiality regulations and basic regulations for information management at the Headquarters and four domestic subsidiaries Updated Human/IT/Physical (HIP) standards

December

Added R&D as a GMS field

Updated information management regulations and Human/IT/ Physical (HIP) standards at four overseas subsidiaries

We also took the following steps to improve company regulations at overseas subsidiaries.

- Clarified company regulations in need of updating at subsidiaries
- Reassessed the company regulations at Tokyo Ohka Kogyo Europe B.V. and decided on an approach
- Decided on an approach for company regulations in need of updating at CHANG CHUNTOK (CHANGSHU) CO., LTD. in China
- Decided on an approach for company regulations for EHS, added basic policy for internal control systems
- Updated information management regulations and standards documentation with cross-references in documents at each company

IR Activities/SR Activities

Dialogue with shareholders and investors

The Director, Executive Officer, Department Manager of General Affairs Dept. is responsible for managing and controlling investor relations (IR), and through meetings on business results, meetings with institutional investors, company orientations for individual investors and a variety of other efforts, works to be proactive in achieving a constructive dialogue.

The Public Relations Division serves as the department responsible for TOK's IR with regard to dialogue with shareholders and investors, and is primarily responsible for facilitating that dialogue, exchanging information with our accounting, sales, legal and other departments as needed and maintaining a coordinated collaboration. The department in charge of IR also works to provide the top management and relevant officers with records of meetings with analysts, shareholders and investors, and to share information.

Main IR activities in FY2018/12

Business results meetings for institutional investors/analysts	2
Individual meetings with institutional investors/analysts	177
Financial results briefings for individual investors	9

IR activities

TOK conducts proactive IR activities, centered primarily on the Public Relations Division, in an effort to enhance our dialogue with shareholders and investors. Specifically, we hold events including biannual meetings on business results, company orientations for individual investors, as well as tours of our facilities. Our CSR reports, annual reports, business reports to shareholders, and Notice of The Convocation of The Ordinary General Meeting of Shareholders are all published on our website, part of our proactive effort to provide shareholders and investors with the information they need.

Records of opinions and requests from shareholders and investors that reach us through this dialogue are collected and regularly reported to the chairman, president and all directors, and we work to ensure that information is understood and shared

In accordance with our Disclosure Policy, TOK also makes an effort to provide its shareholders and investors with consistent information, and to offer fair and timely disclosure. We have also established internal regulations regarding management of insider information, and strive to ensure those regulations are closely followed.

Complying with the Corporate Governance Code

TOK implements all of the principles set forth in the Corporate Governance Code established by the Tokyo Stock Exchange.

Complying with Various Principles of the Corporate Governance Code

[Principle 1.4] Cross-shareholdings

(1) Policies regarding cross-shareholdings

To sustain business development as a business pioneer and R&D-driven company, TOK may hold cross-shareholdings to maintain and expand business synergies in the context of product development, sales promotion, raw material procurement, and manufacturing technology.

Once a year, the Board of Directors examines each stock in terms of synergistic effects with businesses now and in the future, with due consideration paid to the Company's cost of capital and other benchmarks. Shareholdings deemed of low necessity or importance are reduced in principle.

(2) Criteria for exercising voting rights

When exercising voting rights on cross-shareholdings, TOK makes decisions based on a comprehensive analysis of whether the matter proposed aligns with the medium- to longterm enhancement of corporate value and sustainable growth of TOK and the investee.

When special attention is required when exercising voting rights, due to long-term weakness in earnings, organizational restructuring or a major compliance violation at the investee, TOK makes decisions after gathering adequate information.

[Principle 1.7] Related Party Transactions

When engaging in transactions with its officers, major shareholders and others (i.e., related party transactions), TOK considers the rationality of pricing and other transaction terms as it would in third party transactions, to ensure that such transactions do not harm the common interests of the Company and its shareholders. At the same time, in compliance with legal provisions and our own internal regulations, particularly important transactions are presented to the Board of Directors for their approval.

[Principle 2.6] Roles of Corporate Pension Funds as **Asset Owners**

TOK has adopted a fund-type corporate pension plan. Funds in the corporate pension are managed with the objective of having a positive impact on the financial health of the Company and its employees through stable asset formation. TOK selects and appoints personnel, such as senior managers in finance, who have enough knowledge and experience to undertake management of the corporate pension fund, with the objective of increasing management sophistication, including stewardship activities, and adequately function as the asset owner.

TOK has established the Pension Committee as a companywide organization to manage and supervise the operation of the retirement pension system, with the aim of fostering specialized personnel while strengthening governance of the pension fund.

Through the proper operation of the Pension Committee, TOK appropriately manages any conflicts of interest with the beneficiaries of corporate pensions.

[Principle 3.1] Full Disclosure

- (1) Company objectives (e.g. business principles), business strategies and business plans
 - → See the first page "Management Principles"; pages 20-27 "A Message from the President" and pages 36-38 "Overview of the TOK Medium-Term Plan 2021"
- (2) Basic views and guidelines on corporate governance
 - → See page 75 "Basic Concept"
- (3) Board policies and procedures in determining the remuneration of the senior management and directors
 - → See pages 81–82 "Remuneration of Directors and Auditors"
- (4) Board policies and procedures in the appointment/dismissal of senior management the nomination of director and auditor candidates
- a. Policies and procedures in the appointment of senior management and the nomination of director candidates

The Nomination and Compensation Advisory Committee, which is chaired by an independent outside director, in the capacity of its advisory function to the Board of Directors, creates drafts to facilitate decisions on the nomination of senior managers and directors based on a comprehensive evaluation of the character, insight, and work experience of the candidates against the requirements of a management supervisory position. The Board of Directors then decides on a resolution to the General Meeting of Shareholders based on said draft.

b. Policies and procedures in the nomination of auditor candidates

The Nomination and Compensation Advisory Committee, in the capacity of its advisory function to the Board of Directors, creates drafts for the Board of Directors to evaluate candidates for auditor that comprehensively considers their knowledge, experience, and capabilities gained through their career at the Company. Additionally, candidates for outside auditor are comprehensively evaluated based on their knowledge, experience, and capabilities gained through their work outside the Company, in addition to their independence and objectivity. Upon the consent of the Board of Auditors, the Board of Directors then decides on a resolution to the General Meeting of Shareholders based on said draft

c. Policies and procedures for dismissal of senior managers In the event of a relationship with anti-social forces, a serious violation of laws and regulations, violation of internal rules, or other reasons that inhibit the proper execution of other duties is discovered, the Board of Directors shall reach decisions with a report from the Nomination and Compensation Advisory Committee, and if necessary, submit a proposal to the General Meeting of Shareholders.

- (5) Explanations with respect to the individual appointment/ dismissal of senior management and nominations of director and auditor candidates based on (4)
 - → Refer to page 80 "Reasons for the Election of Directors and Auditors" for information on the reasons for election directors and auditors.

[Supplementary Principle 4.1.1]

Based on the Board of Directors regulations, the Company's Board of Directors decides on matters prescribed by laws and regulations, the Articles of Incorporation, and other matters concerning the execution of important business. Decisionmaking involving execution of business other than matters to be decided by the Board of Directors is delegated, as appropriate, to the Committee of Officers, the representative director, the directors and the officers, and those matters are clearly set forth in the Committee of Officers regulations and the Specific Authority by Position.

[Principle 4.9] Independence Standards and **Qualification for Independent Directors**

→ See page 79 "Independence Standards for Outside Officers"

[Supplementary Principle 4.11.1]

(1) Policies for appointment of director candidates and approach to composition of the Board of Directors

The appointment of director candidates is decided following consultation with the Nomination and Compensation Advisory Committee. Internal director candidates are chosen from among officers and others responsible for overall management, based on a comprehensive consideration of numerous factors, including diverse, advanced skills, knowledge and actual performance. Outside director candidates are also evaluated for similar factors, with appointments focusing on those with extensive experience at listed companies and wide-ranging knowledge in management, or from among experts with a thorough understanding of legal affairs, finances, accounting, internal control systems and other areas. We also select

those who can devote sufficient time and effort as required by their duties, and who meet the standards for independence prescribed by TOK and the Tokyo Stock Exchange. Regarding the diversity and size of the Board of Directors, we strive for a balanced composition of internal directors selected for their thorough understanding of areas including sales, development, and manufacturing, with due consideration given to their length of service, experience and actual performance. We also strive to ensure diversity by bringing in multiple outside directors of differing backgrounds, knowledge, and expertise, in addition to diversity in the composition of the Board of Directors in terms of gender and internationalism. Our policy is to maintain a Board of Directors in an appropriate size that will facilitate quick, bold decision-making in a manner commensurate with our business. (2) Procedures for appointing director candidates Based on the above policy, the Nomination and Compensation Advisory Committee prepares a draft appointment of director candidates. The draft is then voted on by the Board of Directors and presented as a resolution to the General Meeting of Shareholders.

[Supplementary Principle 4.11.2]

Directors serving in other important positions

→ See pages 88–89 "Board of Directors/Corporate Auditors and Officers"

[Supplementary Principle 4.11.3]

Board of Directors evaluation

→ See page 76 "Assessment of the Effectiveness of the **Board of Directors**"

[Supplementary Principle 4.14.2]

TOK offers its outside officers opportunities to gain knowledge of the TOK Group's business, structure, management strategy and financial condition, as well as opportunities to deepen their understanding of the TOK Group through participation in internal meetings and visits to our plants and so forth. Upon appointment, inside officers are offered opportunities to learn their legal obligations and responsibilities as fiduciaries, as well as to recognize the attitudes and roles expected of them as officers, and to acquire the knowledge they need to appropriately execute those obligations and roles.

[Principle 5.1] Policy for Constructive Dialogue with **Shareholders**

→ See page 85 "IR Activities/SR Activities"

Anti-takeover Measures

TOK has adopted anti-takeover measures. Please refer to our website for more information.

→ https://www.tok.co.jp/content/download/4193/59903/file/180223.pdf (in Japanese)



Board of Directors/Corporate Auditors and Officers





Ikuo Akutsu

Representative Director, Chairman

- 1982 Joined the Company
- 2003 General Manager, Manufacturing Technology Div.
- 2003 General Manager, Advanced Material Development Div. 2 2007 Chairman and President of TOK TAIWAN CO., LTD.
- 2009 Officer; Dept. Manager, Corporate Planning Dept.
- 2010 Director; Executive Officer; Dept. Manager, Corporate Planning Dept. 2011 Representative Director, President and Chief Executive
- 2019 Representative Director, Chairman (to the present)

Noriaki Taneichi

nsation Advisory Committee Member

- 1986 Joined the Company
- 2009 Dept. Manager, Marketing Development Business Development Div.
- 2011 Dept. Manager, New Business Development Dept
- 2015 Officer: Deputy Dept. Manager, New Business Development Dept.
- 2017 Director; Officer; Dept. Manager, New Business Development Dept 2019 Representative Director, President and Chief Executive Officer (to the present)

Harutoshi Sato

Director, Senior Executive Officer Dept. Manager, Research and Development Dept.

Keiichi Yamada

Kunio Mizuki

- 1984 Joined the Company
- 2004 General Manager, Quality Assurance Div.
- 2007 General Manager, Advanced Material Development Div. 2 2008 General Manager, Advanced Material Development Div. 1
- 2009 Officer; Deputy Dept. Manager, Research and Development Dept and General Manager, Advanced Material Development Div. 3
- 2011 Officer; Deputy Dept. Manager, Research and Development Dept. and General Manager, Advanced Material Development Div. 1
- 2012 Director; Officer; Dept. Manager, Research and Development Dept
- 2017 Director; Executive Officer; Dept. Manager, Research and Development Dept.
- 2019 Director; Senior Executive Officer; Dept. Manager, Research and Development Dept. (to the present)

Kunio Mizuki

Director, Executive Officer Dept. Manager, General Affairs Dept

Nomination and Compensation Advisory Committee Member

1985 Joined the Company

(to the present)

- 2005 General Manager, General Affairs Div.
- 2009 Officer; Deputy Dept. Manager, Administration Dept. and General Manager, General Affairs Div.
- 2012 Officer; Dept. Manager, General Affairs Dept.2013 Director; Officer; Dept. Manager, General Affairs Dept.
- 2017 Director; Executive Officer; Dept. Manager, General Affairs Dept.

Director, Officer Dept. Manager, Manufacturing Dept.

Nobuo Tokutake

- 1984 Joined the Company
- 2003 Chairman and President of TOK TAIWAN CO., LTD. 2007 General Manager, Quality Assurance Div.
- 2009 Senior General Manager, Production Control Div. and
- General Manager, Quality Assurance Div. 2013 Officer; Deputy Dept. Manager, Manufacturing Dept.
- 2015 Director; Officer; Dept. Manager, Manufacturing Dept. (to the present)

Keiichi Yamada

Director, Officer Dept. Manager, Marketing Dept.

- 1983 Joined Japan Synthetic Bubber Co., Ltd. (present JSR Corporation)
- 2001 General Manager, Kyushu Office of JSR Corporation
- 2002 Business Director of Shipley Far East Ltd. (present Rohm and Haas Electronic Materials K.K.)
- 2004 General Manager Japan of Rohm and Haas Electronic Materials K.K. 2008 Senior Deputy General Manager,
- Electronic Material Marketing Control Div. of the Company 2012 Deputy Dept. Manager, Marketing Dept. of the Company
- 2013 Officer; Deputy Dept. Manager, Marketing Dept. of the Company
- 2016 Director; Officer; Dept. Manager, Marketing Dept. (to the present)

Hiroshi Kurimoto

Outside Director Nomination and Compensation Advisory Committee Chairman

- 1970 Joined OILES CORPORATION ("OILES")
- 1999 Director of OILES
- 2003 Director; Managing Operating Officer of OILES
- 2006 Representative Director,
 President and Chief Operating Officer of OILES
- 2011 Representative Director and Chairman of OILES
 2014 Director (Outside Director) of the Company (to the present)
- Director and Senior Advisor of OILES 2015 Senior Advisor of OILES
- 2016 Executive Advisor of OILES

Noriko Sekiguchi

Outside Director

Representative of Sekiguchi CPA Office)

- 1986 Joined Manufacturers Hanover Bank (present JPMorgan Chase Bank, N.A.)
- 1991 Joined Asahi-Shinwa Kaikeisha audit corporation (present KPMG AZSA LLC)
- 1994 Registered as certified public accountant
- 1998 Joined Japan Broadcasting Corporation 2001 Joined Triumph International (Japan) Ltd.
- 2002 Reregistered as certified public accountant
- 2004 Joined Ernst & Young ShinNihon (present Ernst & Young ShinNihon LLC) 2010 Representative of Sekiguchi CPA Office (to the present)
- 2011 Contract Monitoring Committee Member of Japan International Cooperation Agency ("JICA") (to the present)
- 2011 External Assessment Committee Member of JICA (to the present)
- 2012 Registered as certified tax accountant
- 2015 Director (Outside Director) of the Company (to the present)
- 2019 Executive Officer of Chifure Holdings (to the present)







Hajime Fujishita

Standing Statutory Audito

- 1983 Joined the Company
- 2003 General Manager, Utsunomiya Plant
- 2004 General Manager, Aso Plant
- 2005 General Manager, Manufacturing Technology Div. 2009 Officer (Chairman and President of TOK TAIWAN CO., LTD.)
- 2012 Officer; Dept. Manager, Process Equipment Manufacturing Dept. 2016 Standing Statutory Auditor (to the present)

Koichiro Takahashi

Outside Auditor

- 1978 Joined Meiji Life Insurance Company ("MLI") (present Meiji Yasuda Life Insurance Company)
- 2000 General Manager, Marketing Development Dept. of MLI 2001 General Manager, Marketing Planning & Research Dept. of MLI
- 2003 General Manager of Niigata Branch of MLI
- 2006 Executive Officer, General Manager of Human Resources Dept. of Meiji Yasuda Life Insurance Company ("MYLI")
 2006 Corporate Executive Officer, General Manager of Human Resources Dept. of MYLI
- 2008 Managing Executive Officer; Chief General Manager of Nagoya Headquarters of MYLI
- 2009 Managing Executive Officer, Chief General Manager of Retail Sales Dept. of MYLI 2012 Senior Managing Executive Officer, Chief General Manager of Retail Sales Dept. of MYLI
- 2014 President and CEO of MYJ Co., Ltd.
- 2016 Chairman of the Board of Meiji Yasuda System Technology Company Limited
- 2017 Auditor of the Company (Outside Auditor) (to the present)
- 2018 Auditor of Meiji Yasuda Institute of Life and Wellness, Inc. (to the present)

Kazumasa Fukada

- 1977 Joined Tokio Marine and Fire Insurance Company, Limited ("TMFI") (present Tokio Marine & Nichido Fire Insurance Co., Ltd.)
 2002 Branch Manager of Nagano Branch, Chubu and Hokuriku Headquarters of TMFI
- 2005 General Manager of Tokyo Automotive Sales Div. 4 of Tokio Marine & Nichido Fire Insurance Co., Ltd. ("TMNF")
- 2007 Associate Director, General Manager of Tokyo Automotive Sales Div. 4 of TMNF 2008 Executive Officer; General Manager of Head Office Sales Dept. 2 of TMNF
- 2010 Managing Director of TMNF
- 2011 Managing Director; General Manager of Tokyo Automotive Sales Div. 1 of TMNF 2011 Managing Director of TMNF
- 2013 Managing Director of the General Insurance Association of Japan
- 2017 Auditor of the Company (Outside Auditor) (to the present) 2017 Advisor of Tokio Marine & Nichido Fire Insurance Co., Ltd.

Nobuyuki Takeuchi

Outside Auditor

- 1981 Joined Mitsubishi Trust and Banking Corporation ("MTB," present Mitsubishi UFJ Trust and Banking Corporation)
- 2005 Manager, Real Estate Planning Division of MTB
- 2005 Manager, Sales Division 9 of Mitsubishi UFJ Trust and Banking Corporation ("MUTB")
- 2007 Manager, Sales Division 3 of MUTB 2009 Officer, Manager of Kyoto Branch and Central Kyoto Branch of MUTB
- 2011 Managing Executive Officer of MUTB
- 2013 Senior Managing Director of MUTB
- 2015 President and CEO of Mitsubishi UFJ Real Estate Services Co., Ltd.
- 2016 Corporate Auditor (Outside Corporate Auditor) of Maruzen Showa Unyu Co., Ltd. (to the present)
- 2019 Auditor of the Company (Outside Auditor) (to the present)



Yoichi Shibamura

Senior Executive Officer Dept. Manager, Accounting and Finance Dept.

Yuichi Murakami

Deputy Dept. Manager, Manufacturing Dept.

Yoshio Hagiwara

Senior Executive Officer Dept. Manager, Corporate Planning Dept.

Kousuke Doi

Dept. Manager, New Business Development Dept.

Koichi Irino

Executive Officer Chairman and President of TOK TAIWAN CO., LTD.

Tsukasa Honkawa

Dept. Manager, Process Equipment Manufacturing Dept

Jun Jang

Officer President TOK Advanced Materials Co., Ltd.

Deputy Dept. Manager, Research and Development Dept.

Kazufumi Sato

Naoki Watanabe

Deputy Dept. Manager Marketing Dept.

Reduction in Environmental Impact from our Corporate Activities

Environmental Performance*

TOK conducts daily quantitative and qualitative evaluation of the effects that its corporate activities have on the environment, and takes various initiatives to minimize their impact.

* Environmental performance: Environmental performance evaluation is a method of evaluating, in qualitative and quantitative terms, environmental activities and results achieved by an organization in accordance with its environmental policy, objectives and goals.





INPUT				
Total energy consumed	14,527kL crude oil equivalent			
Electric power	40,220,000kWh (10,135kL crude oil equivalent)			
Petroleum (heavy oil)	945kL (953kL crude oil equivalent)			
Gas	2,880,000m³ (3,340kL crude oil equivalent)			
Used water	366,000m ³			
Chemical substances (Class 1 Designated Chemical Substances under the PRTR Law)	1,300t			

			1.3t	
			0.4t 34t (Recycling rate: 42%)	
		General industrial waste	1,830t (Recycling rate: 34%)	
	Industrial waste	Specially controlled industrial waste	2,150t (Recycling rate: 82%)	

29 000t-CO2

I coa

Please follow the URL below for more detailed data on environmental impact by site.

* January 2018 to December 2018 (Chemical substances: April 2018 to March 2019)

Data on environmental impact by site

https://www.tok.co.jp/eng/csr/env-activity/load_data.html



Emissions of Greenhouse Gases

As climate change has become more serious in recent years, companies are expected to measure their greenhouse gas emissions from not only their own properties, but also across their entire value chain. The TOK Group measures and calculates its greenhouse gas emissions based on the Ministry of the Environment's Basic Guidelines on Accounting for Greenhouse

Gas Emissions throughout the Supply Chain within the context of emissions from business activities (Scope 1, Scope 2) and indirect emissions from non-business activities (Scope 3).

TOK will advance initiatives toward the realization of a sustainable society, identifying issues throughout its value chain where its corporate activities can have an impact.

Scope 1		9,285t-CO ₂	Scope 2	20,091t-CO ₂			
	Scope 3 Emissions by Category						
	Purchased goods and services	30,206t-CO ₂	Upstream leased assets	_			
	C-=:t-1 d-	Not applicable	Downstream transportation and distribution	Domestic: 2,702t-CO2			
	Capital goods			Overseas: 3,308t-CO2			
	Fuel-and energy-related activities not included	_	Processing of sold products	Not applicable			

Capital goods	Not applicable	Downstream transportation and distribution	Overseas: 3,308t-CO2
Fuel-and energy-related activities not included in Scope 1 or 2	— Processing of sold products		Not applicable
Upstream transportation and distribution	Not applicable	Use of sold products	Not applicable
Waste generated in operations	6,588t-CO ₂	End-of-life treatment of sold products	Not applicable
Business travel	843t-CO ₂	Downstream leased assets	Not applicable
Employee commuting	572t-CO ₂	Franchises	Not applicable
nployee commuting		Investments	Not applicable

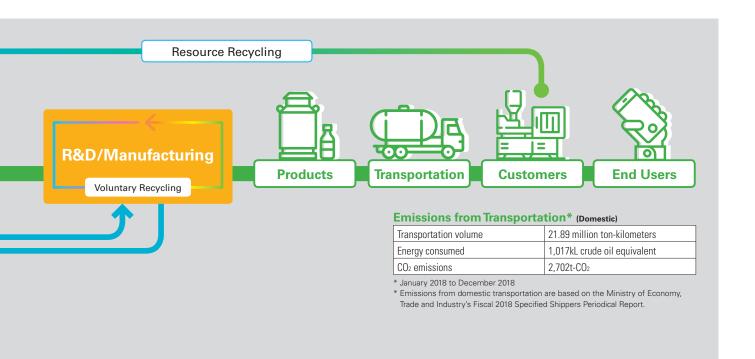
^{*} January 2018 to December 2018 (Waste generated in operations: April 2018 to March 2019)

^{*} January 2018 to December 2018

^{*1} Sulfur oxides (SOx): Produced from the combustion of fossil fuels containing sulfur. These are considered to be the causative substances of acid rain.

^{*2} Biochemical oxygen demand (BOD): BOD refers to the volume of oxygen required when pollutants in the water (organic substances) are turned into inorganic substances or gases through the action of microorganisms. BOD is a major indicator used when evaluating the degree of contamination of rivers and other water bodies. A higher value for BOD means that the water involved is more contaminated.

^{*} Excludes people seconded to other companies.



Environmental Accounting*

TOK has been using environmental accounting since 2000. This allows the Company to conduct environmental management while monitoring the expenses and effects of environmental

programs. In 2018, environmental conservation expenses totaled ¥565 million, mainly for the prevention of pollution and recycling of resources.

(Millions of yen)

Category		Key Initiatives	Investment	Cost
Business area	Pollution prevention cost	Air, water and other pollution prevention equipment and its renewal, operation, maintenance and management	0	97
cost	Global environmental conservation cost	Energy conservation activities	73	15
	Resource circulation cost	Melting, waste processing	0	177
Upstream/Downs	tream cost	Green purchasing, collection of used products	0	8
Administration cost		Approach to environmental management system	0	75
R&D cost		Research and development related to environmental conservation (costs for chemical substances screening)	0	84
Social activity cost		Cleanup activities around the production plants	0	1
Environmental remediation cost		Processing of polluted soil from new building construction	0	35
Total			73	492

^{*} January 2018 to December 2018

Environmental Conservation Cost

Investments refer to the accounting for equipment associated with environmental conservation and improvement. Expenses are the sum of depreciation, personnel and other operating expenses associated with environmental conservation. Personnel expenses are computed based on a basic unit cost.

Economic Benefits Associated with Environmental Conservation Measures

Figures are calculated based on internally realized benefits from the sale of materials having value and from the reduction of costs.

(Millions of ven)

	(IVIIIIOIIS OI YOII)	
	Amount	
Revenue	Gains on the sale of recycled products	19
Cost savings	Reduction in disposal costs through reduction in the volume of waste	86
Total		105

^{*} January 2018 to December 2018

^{*} Environmental accounting: A system for understanding environmental conservation related investments made by, and expenses incurred by, businesses and other organizations. as well as the effects of such investments, in quantitative terms (currency or physical quantity) and communicating such information to stakeholders.

^{*1} Scope of environmental accounting covers production facilities in Japan and distribution centers, excluding the headquarters and marketing offices. Reference used is the Environmental Accounting Guidelines 2005, published by the Ministry of the Environment.

^{*2} Amounts of less than one million yen have been rounded down.

Address Climate Change Issues



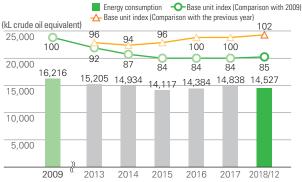
Basic Concept The TOK Group quantitatively measures the environmental impact of its value chain, and works to reduce environmental burden with a full understanding of the impact our production activities have on the environment. We aim to achieve sustainable development alongside society through the development of products that help conserve resources and energy.

Improve Energy Consumption per Base Unit and CO₂ **Emissions**

TOK strives to reduce its environmental impact by improving product manufacturing processes, work efficiency, and facility operations, upgrading to high-efficiency equipment, and enhancing and maintaining heat insulation around steam pipes.

In 2018, the amount of energy used, such as electricity and city gas, decreased 2% year on year to 14,527kL crude oil equivalent, as a result of the installation of more efficient equipment and efforts to improve work efficiency, despite factors that increase energy usage, including an increase in operating hours alongside greater production volume at our sites, the installation of new inspection equipment and the completion of a new building.

Energy Consumption



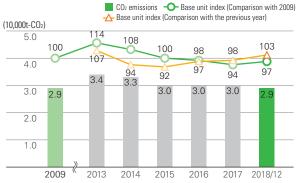
* Changed to the total for January to December to reflect a change in the fiscal vear-end (applied to data from 2009)

* Frrors have been corrected in data for 2016 and 2017.

Energy consumption per base unit increased 2 points compared with the previous year, falling short of the target for the year, owing to a temporary decline in energy efficiency due to reconstruction at the Sagami Operation Center. However, we achieved our medium-term target of reducing energy consumption per base unit by 10 points by 2019 compared with the 2009 level, achieving a reduction of 15 points.

Energy-related CO2 emissions per base unit increased by 3 points year on year, missing the target for the year, owing to an increase in operating hours for heavy oil power generators alongside expansion in production volume. Moreover, we did not reach our medium-term target for a 9-point reduction compared with the 2009 level, having only achieved a 3-point reduction.

CO₂ Emissions (Converted from Energy Consumption)



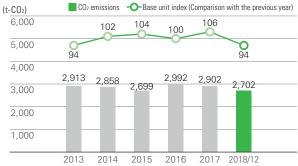
* Changed to the total for January to December to reflect a change in the fiscal vear-end (applied to data from 2009)

Improve Energy Consumption per Base Unit in **Distribution**

In the distribution department and distribution functions at each plant, TOK is taking steps to reduce energy consumption in distribution by examining the use of lighter product containers and packaging materials, mixed loading of raw materials, intermediates and finished products on transportation trucks to reduce the overall number of trucks, and to improve loading efficiency.

In 2018, transportation ton-kilometers increased 5%, reflecting higher product shipments to overseas locations and greater movement of intermediate materials to overseas subsidiaries. However, fuel consumption declined 6% due to improvements in loading efficiency. In terms of base units, transportation ton-kilometers decreased 6 points year on year, owing to a greater percentage of trucks with high loading efficiency.

CO₂ Emissions in Distribution

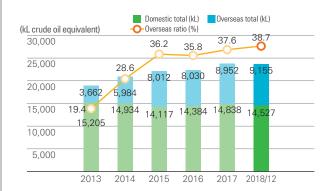


^{*} January 2018 to December 2018

Measures to Prevent Global Warming at Overseas Manufacturing Sites

The overseas ratio of energy consumption increased again in 2018, owing to expansion in production facilities and growth in items produced at overseas sites. For this reason, TOK will engage in production activities with a focus on energy conservation through a PDCA cycle for environmental management systems.

Energy Consumption Ratio of Overseas Sites (%)



Year	Domestic total (kL)	Overseas total (kL)	Overseas ratio (%)
2014	14,934	5,984	28.6
2015	14,117	8,012	36.2
2016	14,384	8,030	35.8
2017	14,838	8,952	37.6
2018	14,527	9,155	38.7

^{*1} January 2018 to December 2018

Future Issues and Initiatives

Climate change has become an urgent issue that threatens the safety and well-being of people all over the world, in both industrialized or developing countries. The TOK Group is tackling this issue by aggressively working to reduce greenhouse gases through the efficient use of energy, aiming to increase the ratio of renewable energy and use low-carbon energy sources by converting fuel from coal and heavy oil to natural gas.

TOK's <u>Hu</u>man Resource



Hideaki Hayashi Assistant Manager, General Affairs Office, Gotemba Plant

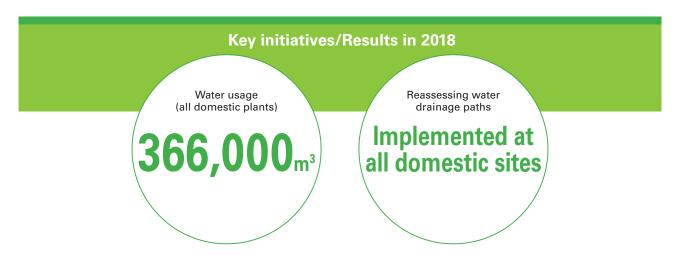
Reducing Not Only CO₂ Emissions but Also Risk and Costs by Switching to Natural Gas Boilers

The Gotemba Plant switched from heavy oil boilers to natural gas boilers in August 2018 as a part of activities to reduce energy-related CO₂ emissions of the Company. The modernization of large-scale air conditioning systems in May 2017 resulted in a 7% year-on-year reduction in CO2 emissions corresponding to the reduction in electricity used,

contributing to the overall decrease in CO₂ emissions. Underground storage tanks were removed as a result of switching to natural gas boilers and reduced the risk of leaks and management costs. We aim to increase the operational efficiency of our equipment and contribute further to reducing our environmental impact.

^{*2} Errors in CSR Report 2018 regarding data for 2016 and 2017 have been corrected.

Promotion of Resource Recycling: Initiatives to Address Water Risk



Basic Concept The Group must use pure water in its products and manufacturing processes, and therefore makes a concerted effort to minimize the amount of water consumed by production activities and to maintain and improve the quality of wastewater. We aim to contribute more in this regard through business activities that consider the issue of virtual water*.

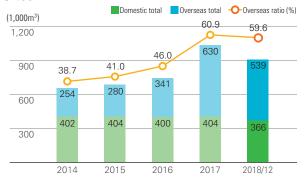
* Virtual water is an estimated amount of water consumed in the production and distribution of agricultural and industrial products, as well as the water resources necessary if imported products were instead produced in the importing country

Water Usage Volume

Water usage volume changes when manufacturing processes and output change. TOK works to reduce usage by constantly monitoring the state of industrial water and city water usage, and reviewing related equipment.

In 2018, water usage volume in Japan decreased by 39,000m³ year on year to 366,000m³, despite an increase in production volume, thanks to efforts at recycling water in the manufacturing process for pure water that is used to manufacture other products. Overseas, even though production volume expanded, water usage declined by 91,000m³ year on year to 539,000m³, reflecting the switch to more efficient operating methods at Chinese site.

Water Usage Volume at Domestic and Overseas Sites



Changed to the total for January to December to reflect a change in the fiscal year-end (applied to data from 2014)

Water Risk Management

Water risk is widely recognized as a serious worldwide risk, ranking among the three largest risks since 2012 in the Global Risks Report published by the World Economic Forum. To better understand water usage volume at all of its sites around the world, the TOK Group has clarified risks at each stage of water supply, raw materials supply, manufacturing processes, and wastewater emissions from plants.

Reduce Water Pollution Risks by Reassessing Water **Drainage Paths**

In 2018, TOK surveyed the state of water usage at all domestic sites. The Company reviewed operational methods at each stage of water usage, and attached covers for the purpose of preventing leaks, with the objective of mitigating risks at sites identified as having pollution risks in their wastewater. We will continue carrying on efforts to reduce risks.



Worldwide Water Risk (0–100%) Projections for 2030

In a business-as-usual (BAU) scenario, the map shows water usage as a percentage of water supply in each region, assuming both economic growth and higher CO2 emissions.

The higher the percentage, the more severe the competition for water as more people fight over fewer water resources.

- Low risk (under 10%)
- Low to medium risk (10–20%)
- Medium to high risk (20–40%)
- High risk (40–80%)
- Extremely high risk (over 80%)
- Water shortage

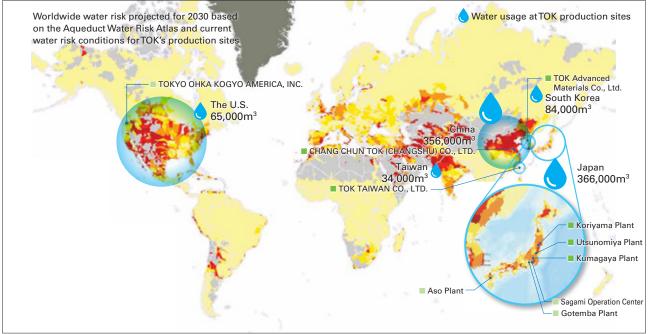
Overall Water Risk

The current degree of exposure to water risk at TOK's production sites, based on a comprehensive evaluation of Physical Risk Quantity, Physical Risk Quality, and Regulatory & Reputational Risk

- Low risk (0–1)
- Low to medium risk (1–2)
- Medium to high risk (2–3)
- High risk (3–4)
- Extremely high risk (4–5)

Business-as-Usual (BAU) scenario (RCP8.5)

The BAU scenario is one of four scenarios for representative concentration pathways outlined in the Intergovernmental Panel on Climate Change's Fifth Assessment Report. This scenario assumes no further efforts are made to suppress emissions after already introduced or currently planned measures to reduce emissions. This scenario assumes maximum emission volume among projected greenhouse gas emissions as of 2100.



Aqueduct Water Risk Atlas

Aqueduct is an interactive website tool for mapping water risk provided for free by the World Resources Institute (WRI), a thinktank in the U.S. that researches water and other natural resource problems

Aqueduct provides data on water risk at the production sites of companies. The website also offers detailed information about natural resource problems in various regions of the world.

Future Issues and Initiatives

An assessment of the risk level of the TOK Group's manufacturing sites resulted in a "medium" risk level being identified. TOK is focusing efforts on reducing water risk while considering the balance with water usage, by examining in more detail its water usage (transfer to products, transfer to the atmosphere via evaporation, transfer to wastewater and effluents, and transfer as household wastewater).



Toshiya Takagi (left) Section Manager, EHS Office, EHS Div.

Taiji Shigematsu (right) Section Manager, Facilities Office, Manufacturing Dept.

Advancing Initiatives to Reduce Water Usage Volume

The Company's initiatives to address water risk have in the past mainly focused on managing water usage volume while reducing the risks related to wastewater and leakages. In 2018, the Company confirmed a 30% year-on-year reduction in water usage in the pure water production equipment thanks to the introduction of a prototype recycling system, in addition to ascertaining the water balance at each domestic plant.

We intend to gather more data about water budgets and refocus on activities to reduce water usage, while setting a future target for company-wide reduction. Since equipment performance is a major determining factor in the ability to reduce water usage volume, we will work with facilities departments in charge of energy conservation activities to strike the right balance in overall water usage.

Promotion of Resource Recycling: Reducing Industrial Waste Emissions and Landfill Disposal



Basic Concept We conduct 3R activities (reduce, reuse, recycle) for effective use of limited natural resources. By restricting the volume of waste generated, thoroughly sorting the waste by type and increasing the volume that's recycled, we are working to make more effective use of resources. We strive to maintain zero emissions* by working to reduce landfill disposal volume by processing waste products through combustion or crushing, called intermediate treatment, and through stabilization and volume reduction initiatives.

* Zero emissions: Landfill disposal volume (direct or after intermediate treatment) of less than 1% of industrial waste discharged by business activities

Reduce Industrial Waste Emissions

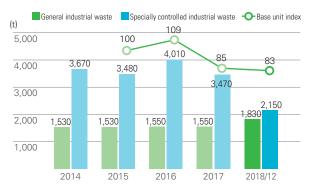
In 2016, TOK set a new medium-term target for reducing industrial waste (per base unit) by 5 points by 2020 compared with 2015 (reduction of 1 point annually). With this target in mind, TOK has been advancing activities to reduce various industrial waste, such as by refining and reusing process effluents, internal effluent processing, internal recovery, and converting waste into items of value.

In 2018, the Company proactively refined and reused process effluents, and converted into items of value, resulting in a 17-point reduction compared with 2015 and a 2-point reduction compared with the previous year.

Maintain Zero Emissions

In 2018, industrial waste subject to landfill disposal after intermediate treatment stood at less than 1% of total waste, so we have achieved zero emissions for five consecutive years.

Volume of Industrial Waste*1, *2



- * Changed to the total for January to December to reflect a change in the fiscal
- *1 The base unit index is calculated after adding general industrial waste and specially controlled industrial waste
- *2 We are committed to reducing the amount of industrial waste generated, and our goal is to reduce this amount by 5 points (1 point per year) by 2020, taking the index for 2015 as the base unit.

TOK's Human Resource



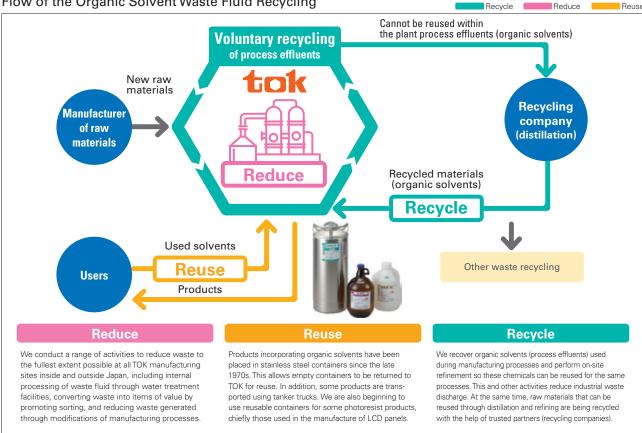
Takahiro Sasaki Assistant Manager, General Affairs Office, Aso Plant

Effectively Utilizing the Earth's Resources by Repeating Basic Techniques

At the Aso Plant, we have committed to the 3Rs as the never-ending slogan for a production plant. Our efforts are focused on reducing and reusing effluents emitted from production processes and effectively utilizing them as a source of energy, for example. By precisely sorting effluents by solvent type, it is possible to recover raw materials through superfractionation. Effluents can also be processed into fuel

after making adjustments in the plant for the processor companies. In these and other ways, we have improved our recycling rate. Plastic waste is a global concern that has an impact on ecosystems, and we are stepping up efforts to sort plastic waste and turn it into a raw material again. We will continue to improve our processes and raise awareness about the environment among employees in a bid to further reduce waste.

Flow of the Organic Solvent Waste Fluid Recycling



Reduce: This refers to reducing the volume of waste material generated. Reduction involves minimizing the volume of materials in products in order to minimize the volume of materials that is eventually discarded Reuse: This refers to the use of manufactured goods, containers and other products repeatedly in order to reduce the volume of waste materials generated and conserve resources. Recycle: Recycling is the use of waste materials as a resource rather than burning these materials or sending them to a landfill. Recycling thus conserves resources and prevents pollution.

Techniques for Recycling Organic Solvent Effluents

TOK makes concerted efforts to effectively use waste emitted from its own plants. Waste oil is sorted by each type of recyclable solvent, a rating for impurities is assigned, and is analyzed whenever it is emitted. By strengthening management in this way, we are able to reuse waste oil that was previously treated as industrial waste and disposed. Waste oil with a mixture of organic solvents is blended with other waste oil of differing calories and water content to create combustion improvers. TOK will continue efforts to reduce emissions of industrial waste by effectively utilizing resources.

Developing an In-house Recycling Ecosystem

As a new initiative to reduce its environmental impact, TOK is cooperating with research institutions (companies/universities/ public entities, etc.) to proactively develop new technologies. One of these initiatives is an in-house recycling ecosystem that uses new technology to process in-house waste and extract energy from this waste. This recycling ecosystem has proven itself to be cleaner than a regular combustion system in terms of gas emissions. The recycling ecosystem is still in the testing stages, and we are working hard so it can help solve the issue of climate change.

TOK's Stakeholders



Mr. Shoichiro Abe (right)

Director General Manager Kyusyu Yozai Co., Ltd.

Mr. Takashi Shoji (left)

Manager, General Affairs Department Kyusyu Yozai Co., Ltd.

Starting Communication about Further Evolving Activities

Our main business is to supply recycled materials to raw material manufacturers like TOK. We receive effluents and used solvents from companies in the electronics industry and refine them for reuse through a distillation process. These efforts contribute to the development of a recycling-based society by reducing emissions of industrial waste.

In recent years, the electronics industry has started to demand the reduction of impurities in products as measured in the ppt level*1. To meet these stricter customer requirements, we are focusing our energies on working with TOK to regularly exchange information and cross-check quality. Recently, we have started a conversation about further evolving these activities, such as examining measures to reduce waste volume through the distillation and refining of effluents.

As an associated company*2, we aim to contribute to maintaining zero emissions, reducing environmental impact, and the recycling of resources for the TOK Group, while receiving guidance from TOK and sharing knowledge between the two companies.

- *1 1ppt = 1 part per trillion
- *2 An associated company not accounted for by the equity method

Air, Water and Soil/Biodiversity



Basic Concept The Group takes steps to lighten its environmental impact through reductions in greenhouse gases* and chemical substance emissions by upgrading equipment, switching fuels, and reviewing manufacturing processes to preserve the air, water, and soil environments upon which our livelihoods depend. Also, we formulated the TOK Biodiversity Protection Declaration and are working to raise employee awareness of the issue.

* Greenhouse gas: Gas in the atmosphere that allows sunlight to pass through but absorbs infrared rays emitted from the ground and sea. These gases are believed to cause global warming.

Prevent Air, Water and Soil Pollution

• Reducing emissions of air-polluting substances

TOK has been converting its boilers to use natural gas to reduce emissions of sulfur oxide (SOx) and nitrogen oxide (NOx) that are major contributors to air pollution. In 2018, boilers at the Gotemba Plant were converted to natural gas boilers. This marks the completion of the conversion of boilers to city gas boilers at all of our plants, with the exception of two plants without access to city gas supplies.

In 2018, SOx emissions related to business activities were reduced by 0.1 tons year on year to 1.3 tons, thanks to the conversion to natural gas boilers at the Gotemba Plant. NOx emissions increased by 2.3 tons year on year to 10.1 tons, reflecting longer operating hours of electric power generators.

• Monitoring soil pollution

The TOK Group manages the risk of soil and underground water pollution with the recognition of concerns that such pollution could threaten the safety and health of local residents and employees. In the event that surveys discover soil or underground water pollution, the Company will rapidly disclose information and take remedial actions to ensure the health and safety of local residents. The Company will also report to relevant government agencies the status of pollution and measures being taken to prevent the pollution from spreading. To prevent soil and underground water pollution from spreading to nearby areas, we will continue activities to avoid pollution risk by properly conducting soil surveys in accordance with laws and regulations.

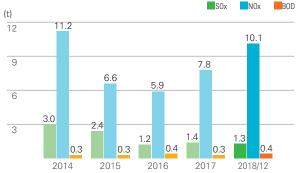
· Reducing emissions of water-polluting substances

TOK has set its own management standards for treating wastewater from its sites that are stricter than regulations in laws and local ordinances for purifying wastewater, such as activated sludge processing, at its process wastewater treatment facilities. Only water that satisfies standards for cleanliness is released into the public water system.

The Company also periodically evaluates water quality for compliance with its own standards as well as laws and regulations. In 2018, there were zero incidents where water quality did not meet its own standards or required values set by laws and regulations. TOK will continue its efforts to reduce emissions by maintaining and managing its process wastewater treatment facilities so water can be released after satisfying applicable standards.

BOD emissions in the water discharged into public waters in 2018 were approximately 0.4 tons. This was the same level as in the previous year.

SOx/NOx/BOD Emissions



^{*} Changed to the total for January to December to reflect a change in the fiscal year-end

Countermeasures against Ozone-depleting Substances

The TOK Group uses ozone-depleting chlorofluorocarbons, such as CFC-11 and CFC-12, as coolants for refrigerators and freezers. The entire Group is working diligently to reduce CFC volume and switch to alternative coolants. The revised Act on Rational Use and Proper Management of Fluorocarbons mandates regular inspections and reporting leakage volume, and TOK is updating its environmental system for the proper management, filling and disposal of CFCs. As a result of taking appropriate measures, TOK's estimated leakage of CFCs in 2018 was approximately 23t-CO₂ based on the Act.

TOK will continue to conduct group-wide inspections such as periodically replacing fire extinguishing equipment that uses ozone-depleting substances with the aim of further strengthening management to prevent any noncompliance with laws and regulations.

* Data collection period: April 2018 to March 2019

Comply with PRTR Law

Under the Japanese Pollutant Release and Transfer Register (PRTR) Law, companies are obligated to manage and report to the government the production, release and transfer of designated chemical substances. To accurately calculate and report these figures, TOK relies on its chemicals and PRTR management system.

Of the Class I Designated Chemical Substances, a list of 462 substances defined by the PRTR Law, TOK handled 41 substances (a total of 1,300 tons) in 2018, and the Company estimates 2 tons were released into the atmosphere and public water systems. TOK works to measure emissions of VOCs and harmful air-polluting substances through PRTR surveys with the Japan Chemical Industry Association, of which it is a member.

* Data collection period: April 2018 to March 2019

Preserve Biodiversity

The TOK Biodiversity Protection Declaration guides the TOK Group's activities to preserve biodiversity. A total of 208 employees have participated in biodiversity training so far. In 2018, six employees were dispatched to help with afforestation projects alongside local residents through the Kanagawa Trust Midori Foundation. We will continue to conduct these basic activities to preserve biodiversity with the intention of starting a ripple effect inside and outside the Company, spreading them throughout society.

Preserve biodiversity

TOK Biodiversity Protection Declaration

- 1. We will position biodiversity protection as one of management's highest priorities and strengthen protection activities for the alobal environment.
- 2. We will work to continually reduce our environmental impact through our production activities, our development and provision of products and services, and in coordination with the supply chain, thereby working to protect biodiversity
- 3. We will strive to enhance activities by educating employees on a regular basis and facilitating recognition and a correct understanding of the importance of biodiversity protection.
- 4. We will continually conduct social contribution activities for environmental protection to earn the esteem and trust of society.
- 5. We will announce the results of initiatives and promote communication with the general public.

Examples of Activities

- Develop green processes and green products
- Improve energy efficiency and promote resource recycling and 3R activities
- Deliver Assess environmental impact in new plant construction or extension plans and take measures
- Reduce environmental impact through activities to reduce waste
- ight
 angle Control diffusion into the environment of substances that readily accumulate and do not easily biodegrade through appropriate management of chemical substances

Future Issues and Initiatives

TOK has engaged in a variety of activities to reduce emissions of air-polluting substances, cut emissions of water-polluting substances, and mitigate ozone-depleting substances. A common refrain in all of these categories is that unless we operate the equipment correctly on a constant basis, the installation of high-performance equipment is meaningless. With the belief that properly maintaining and managing the facilities and equipment is just as important, we will carry on with activities to preserve air, water and soil environments.

TOK's Human Resource



Tadao Sato Assistant Manager, General Affairs Office, Aso Plant

Unique Initiatives to Preserve the Magnificence of the Natural Environment

The Aso Plant is located inside the Aso-Kuju National Park in Kumamoto Prefecture, which extols the benefits of living next to abundant water resources. Its production activities take place in a magnificent natural environment. To preserve such bounty in the natural environment, we have prioritized activities to reduce the risk of environmental accidents as much as possible, such as by installing shutoff valves in water drainage paths and other unique initiatives, with the

objective of preventing damage from spreading when a leak of harmful substances occurs. When discharging wastewater from oil retaining walls and catch basins with pits for piping, we only release water after analyzing the water for hazardous substances and confirming zero problems will occur. In these and other ways, we make our utmost effort to reduce the risk of environmental pollution, and will continue carrying on activities to protect the environment.

Managing Chemical Substances

Strengthening Activities Related to Product Responsibility and Product Stewardship

Key initiatives/Results in 2018

Accurately evaluated chemical substance risks in a timely fashion and properly managed these risks

Advanced disposal of **PCB** waste at three sites

Improved supplier engagement

Basic Concept One of the international trends in the management of chemical substances over the past few years, managing chemical substances on a risk basis has become the norm following the agreement on 2020 targets* at the 2002 World Summit on Sustainable Development in Johannesburg, South Africa. As one of its management principles, TOK has identified its responsibilities to local communities and communities around the world within the context of working to reduce its impact on the environment, including combating global warming, managing chemical substances, effectively utilizing resources, and reducing waste. In other words, TOK is strengthening activities related to product stewardship.

* WSSD 2020 Target: Aim to achieve by 2020 the use and production of chemical substances based on methods to minimize significant adverse effects on human health and the environment, using transparent science-based risk assessment procedures, taking into account the precautionary approach.

Carry Out Appropriate and Reliable Management of Chemical Substances

TOK is working to establish a system for properly conveying data about chemical substances throughout the supply chain as part of its product stewardship activities, a key pillar in Responsible Care. Timeliness and accuracy of information are vital when conveying data about chemical substances. "Upstream management" is very important for the timely and accurate receipt of information about chemical substances from upstream suppliers. In addition to the information about chemical substances received from these suppliers, TOK must obtain and manage the latest information about chemical substance regulations in each country and display information on product safety data sheets (SDS) and labels to present its customers with accurate relevant information about chemical substances in a timely manner.

With a focus on strengthening its upstream management system in 2018, as its first initiative, TOK endeavored to improve the management of raw materials. In the past, we used email to communicate with suppliers to confirm whether materials contain substances subject to assessment when related laws and regulations and treaties are revised. However, email was not very efficient and became a cumbersome administrative burden. We decided to use a supplier survey system to gather responses to our questions, and the responses are automatically reflected in data on product composition, allowing us to provide our customers with relevant information more

efficiently and rapidly. As another initiative, we worked to improve product composition management. We markedly improved the speed for assessing products under development by including these items in a database that previously only included the compositions of mass-produced products. TOK will continue striving to ensure accurate information about chemical substances is rapidly provided to stakeholders.

Properly Comply with PCB Special Measures Act

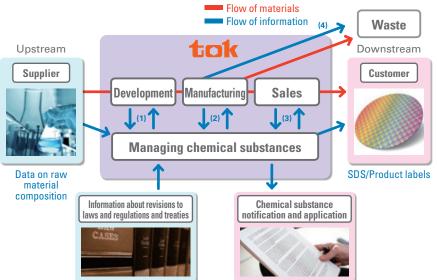
In 2018, TOK properly stored and managed waste containing PCBs* in accordance with prescribed storage standards at three sites comprising the Sagami Operation Center, Shonan Operation Center, and Gotemba Plant, while also filing reports with the government authorities. The Company has disposed 82% of the high-concentration PCB stored at the Sagami Operation Center. Looking ahead, TOK must dispose of all electrical substation facilities and related waste used and stored at all of its sites by the legally mandated deadline of 2027. The Company intends to dispose of this waste in stages by drawing up plans to update equipment in a way that does not interfere with business activities.

* Polychlorinated biphenyl (PCB): A kind of organic compound, PCB was formerly used for thermal media, insulating oils, paints and other applications because it excels in terms of heat resistance and electrical insulation. However, due to its poor degradability and high toxicity, PCB production was discontinued in 1972. Nevertheless, little progress has been made with regard to its disposal, and managers responsible for its storage are required to place it under strictly controlled conditions

Chemical Substance Risk Management in the Supply Chain

To properly manage chemical substance risk in the supply chain, it is necessary to provide information in accordance with the flow of materials. For each stage of development, manufacturing, sales, and disposal, TOK has created procedures for complying with laws and regulations and managing risks.

Flow of Chemical Substance Risk Management in the Supply Chain



(1) Development stage

For raw materials used in newly developed products, the Company has put in place a system for complying with legal requirements and ascertaining the existence of regulated substances under laws and regulations and treaties including chemical substance management laws and regulations in each country, the REACH regulation*1 or other laws governing conflict minerals*2, etc. Moreover, the Company has created the TOK Group Standards on Chemical Substances
Management, which define the chemical substances that are
prohibited or should be managed, and works to reduce their use if standard thresholds are exceeded by proposing alternative plans.

(2) Production stage
All raw materials used to manufacture products are subject to occu-pational health and safety risk assessments. The Company identifies hazardous factors in the production environment, clarifies the hazard level, implements measures to mitigate and eliminate the hazardous factors based on their risk level, and then takes action to lower the risk In this way, TOK maintains a proper work environment for its employees

(3) Sales stage

TOK has connected its ERP system, which manages product shipment volumes, and its chemicals and PRTR management system, which manages chemical substance composition, to create a framework for automatically calculating the volume of chemical substances transferred. With this framework, TOK is able to appropriately report chemical substance volumes and apply for their usage in accordance with the Chemical Substances Control Law*3 and the PRTR Law*4 in Japan, as well as the laws and regulations of the countries that import its products.

(4) Disposal stage
Waste from each site is thoroughly sorted by type and recycled, and properly disposed when necessary. For waste disposal companies contracted to dispose the waste, TOK provides information about the type of waste handling precautions through Waste Data Sheet (WDS). The Company periodically visits the waste disposal companies to perform on-site audits and ensure waste is being disposed properly in accordance with contractual agreements.

- *1 REACH regulation: Registration, Evaluation, Authorization and Restriction of Chemicals. This is an EU regulation that manages the registration, evaluation, and accreditation of chemical substances through an integrated with the aim of ensuring complete fulfillment of responsibility on the producers' part, as well as thorough compliance with pr
- *2 Conflict minerals: Refer to four types of minerals including tin, tantalum, tungsten, and gold mined in the Democratic Republic of the Congo and adjoining countries experiencing armed conflicts. These minerals are regulated under the U.S. Dodd-Frank Act (financial regulatory reform act).
- *3 Chemical Substances Control Law: Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.
- *4 PRTR Law: Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof

TOK Group Standards on Chemical Substances Management

To promote initiatives related to reducing environmental impact, we are focusing on managing chemical substances during the raw material procurement stage. In January 2005, we formulated the TOK Standards on Chemical Substances Management, which specifies chemical substances to be prohibited or managed. Since then, we have revised the Standards multiple times to comply with the most recent laws, ordinances, and regulations, including the EU REACH regulation and conflict minerals regulated under and the U.S. Dodd-Frank Act (financial regulatory reform act).

In the seventh edition the Company issued in May 2017, we renamed it the TOK Group Standards on Chemical Substances Management, and clarified regulations for chemical substances at Group sites and customer requirements for the environmental management of substances, as well as completely reviewed the chemical substances subject to management. The TOK Group Standards on Chemical Substances Management are used as a tool for obtaining data on chemical substances from suppliers, and by sharing information through the supply chain, we will continue to properly manage chemical substances within the context of risk management.

Future Issues and Initiatives

In countries that have registration systems for new chemical substances, companies are often required to file information about the application of these substances and the importer/exporter. Customers for the Company's products have shifted overseas, making it more complex and complicated to keep track of distribution channels for chemical substances, and this has turned into a burdensome workload. By automating work that had been done manually, we aim to lighten workloads while examining ways to improve accuracy and speed at the same time. TOK plans to develop and start testing this system in 2019 with the aim of deploying it in 2020.

TOK's Human Resource



Toru Miyano Section Manager, Chemical Substance Management Office, EHS Div.

Building Stronger Relationships with Overseas Subsidiaries, Endeavoring to Reliably Supply Products

The Chemical Substance Management Office must constantly stay abreast of the latest requirements in laws and regulations to fulfill its mission of rapidly and accurately conveying information about chemical substances to stakeholders. Around the world chemical substance management is being strengthened. In South Korea and Taiwan, laws and regulations are scheduled for revision by 2020. To avoid

any interference with product deliveries after these laws are revised, TOK is making preparations in advance, and obtaining the latest information through its subsidiaries in both countries. This is also one outcome of the Group Management System (GMS) that has been promoted since 2016. We are endeavoring to stably supply products by continuing to build even stronger relationships with overseas subsidiaries.

Occupational Health and Safety/Security and Disaster Prevention

Occupational Health and Safety/ **Reducing Risks Posed by Chemical Substances**

Key initiatives/Results in 2018

Implemented environmental safety training, including preventive measures and sensory training

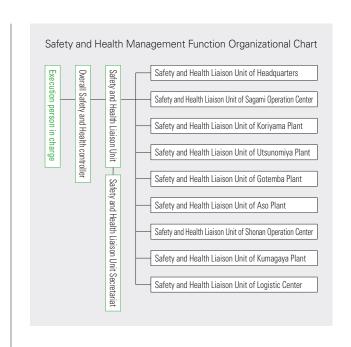
Reduced risk in handling chemical substances

Basic Concept In its initiatives for occupational health and safety, TOK conducts various activities to prevent accidents based on the annual action plan of the Safety and Health Committee. For company-wide issues that a single site cannot address on their own, the Safety and Health Liaison Unit, with the Human Resources Div. at the Headquarters as a secretariat, is in charge of finding solutions. The Safety and Health Liaison Unit shares information about the state of occupational health and safety measures that must be horizontally developed across all sites. Based on this organizational structure, the Company advances activities to prevent injuries and fire accidents caused by chemical substances, as well as severe injuries caused by machinery or heavy objects. In the event of a workplace accident, TOK takes thorough countermeasures to improve safety and rolls them out horizontally across the organization.

Implement Preventive Measures Based on Actual Occupational Accidents

TOK has established Safety and Health Committees at each site in accordance with the Industrial Safety and Health Act, and has created the Safety and Health Liaison Unit to oversee company-wide activities. The Department Manager of the General Affairs Dept. is the execution person in charge of the Safety and Health Liaison Unit, which shares information across sites and promotes company-wide occupational health and safety initiatives. We are focusing efforts on further reinforcing the occupational health and safety system to obtain ISO 45001 certification, which was published in March 2018, with the aim of reducing business continuity risk due to workplace accidents, while seeking to improve the level of occupational health and safety.

In 2018, TOK selected a leader to promote safety at each plant, and conducted safety inspections of all plants as a part of corrective measures following workplace accidents that occurred that year. Through these inspections, TOK identified company-wide problems and reconciled them with required levels of safety measures. The Company defined common safety standards for the entire Group, in addition to improving equipment and revising work procedures based on safety standards at each site.



Implement Emergency Response Training/ **Environmental Awareness Training/Guideline Training** for Accident Prevention

TOK operates environmental management system at each site, and periodically conducts drills for responding to emergencies and natural disasters, such as earthquakes, based on potential scenarios it has clarified for emergency situations. At each of the Company's sites, many workers from third-party vendors are often engaged in construction or maintenance of machinery. In 2018, TOK began to draw up its Third-party Vendor Management Guidelines as a common set of rules for the entire Company to prevent environmental accidents and workplace injuries when people from third-party vendors perform work. In 2019, TOK will officially release these guidelines, and create detailed rules for each site to prevent accidents and injuries.



Training in Koriyama Plant

Initiatives for Reducing Risk in Handling Highly **Corrosive Chemical Substances**

TOK uses chemical substances with corrosive properties in the manufacture of semiconductor-related products. In 2018, the Company reassessed its production lines and work procedures based on lessons learned from accidents caused by such chemical substances. TOK also made concerted efforts to improve the level of safety, sharing information about safety measures among sites that use the same chemical substances. In 2019, the Company plans to ascertain the suitability of the safety measures it has implemented on its own and identify any potential sources of danger with the objective of further improving the level of occupational health and safety. To this end, TOK plans to have a third-party institution conduct a health and safety audit.

Prevention of Workplace Accidents

Safety and Health Committees at each site are in charge of activities to prevent workplace accidents at their sites, and periodically hold training sessions and drills for employees. The Safety and Health Liaison Unit prepares manuals for emergency safety measures in the event of workplace accidents, completing an appropriate response system.

In 2018, there were two accidents resulting in lost working days. We will continue to make concerted, company-wide efforts to prevent workplace accidents, to achieve our goals of "zero accidents" as well as "zero accident risks."

Future Issues and Initiatives

TOK has already obtained ISO 9001 and ISO 14001 certifications, and is examining the acquisition of ISO 45001 certification for occupational health and safety management systems, a third type of management system. ISO 45001 was issued in March 2018, and JISQ 45001 was published in September 2018. Across the industry, more companies are likely to seek out these certifications. If a workplace injury or accident occurs during production activities, TOK could incur significant costs to clean up the aftermath and take corrective actions, which could severely impede production activities. By introducing an occupational health and safety management system, TOK will reinforce the creation of workplaces where employees can work in safety and good health, while preventing workplace accidents before they occur.

TOK's Human Resource



Takashi Aoki Engineer, EHS Office, EHS Div.

Aiming for Zero Environmental Accidents and Zero Workplace Accidents by Improving the Level of Safety

TOK handles a large volume of chemical substances in the manufacture of semiconductor-related products such as photoresists. Some of these chemical substances are hazardous or poisonous, requiring adequate attention when handling them. At its plants, the Company is vigorously improving safety measures by reviewing manufacturing equipment and work procedures based on lessons learned from past accidents. The occupational health and safety

management system (ISO 45001) the Company plans to introduce in the future could be integrated with its existing environmental management system (ISO 14001). We believe this would create a more efficient system while improving the level of environmental preservation and occupational health and safety, aligning with our aim for zero environmental accidents and zero workplace accidents.

Stakeholder Communication

As a member of society, the TOK Group will continue to create value and help address social issues while engaging in dialogue with stakeholders to gain insight into their expectations for the Group.

Dialogue about the Environment and Safety

Number of participating employees

(As of December 31, 2018, total)





TOK strives to heighten consciousness of the environment and safety among employees and interact more with local residents through conducting activities such as cleaning up the surrounding areas and raising awareness of transportation safety in their communities at each domestic manufacturing site.

In the fiscal year ended December 31, 2018, employees participated in activities including cleaning areas around their sites, donating blood, and improving awareness of traffic safety among local residents around the Gotemba Plant. Employees also help afforestation activities with Kanagawa Prefecture residents through the Kanagawa Trust Midori Foundation, which works to preserve water resources and the environment in Kanagawa Prefecture where our Headquarters is located.

Dialogue for the Development of Science

Grant programs

(Grants provided in 2018 through the Tokyo Ohka Foundation for The Promotion of Science and Technology)





TOK contributes to the advancement and development of science and technologies through the Tokyo Ohka Foundation for The Promotion of Science and Technology. Established by our founder Shigemasa Mukai, the Foundation was founded on his philosophy that the development of Japan, a nation with few natural resources, depends on the development of innovative technologies from advances in fundamental research, and the application of these technologies in industry will lead to peace and prosperity for humanity. With the aim of contributing to the invigoration and advancement of science and technology around the world, the Foundation provides four grant programs and bestows one award.

Dialogue with Local Communities

Number of visitors

Approx.

(FY2018/12)





In creating shared value with society, TOK focuses on cooperating and collaborating with local communities, as well as building relationships based on trust. The Company proactively engages in social contribution activities around its business sites. During the fiscal year ended December 31, 2018, TOK held its 32nd Noryosai (summer festival) at the Company's housing complex and dormitory adjacent to the Shonan Operation Center as a venue to communicate with local residents and business partners. At the Gotemba Plant, we invited local children and their families to a Living Nature Observation Tour at the Dragonfly Pond, the plant's biotope. At the Koriyama Plant, many employees participated in the 21st Nikokai* Noryosai (summer festival). Through these initiatives, TOK will continue to encourage communications with local communities.

^{*} An abbreviation for the Koriyama Seibu No. 2 Industrial Park Industry Association to which the Koriyama Plant belongs