Quality Management System

Focused on manufacturing products of even higher quality

With the goal of more efficiently and effectively supplying products and services that satisfy our customers, we have made a commitment to continually improve product quality and environmental management practices throughout the Company. In line with this commitment, we have established annual quality and environmental policies and promoted their awareness not only within CKD but also among those working with the Company.

Policy

Our product quality and environmental policies focus on more efficiently and effectively supplying products and services that satisfy our customers. Accordingly, we have established the following policies and remain committed to continuously improving the quality management system throughout the Company.

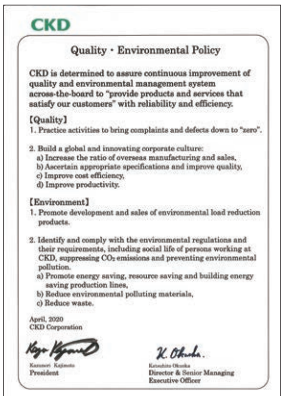
[Quality]

1. We will conduct activities aimed at achieving zero complaints and zero product defects.

2. We will build an innovative and global structure that:
- **a) Improves the overseas production and sales ratios**
- **b) Identifies optimal quality and boosts product quality**
- **c) Improves cost competitiveness**
- **d) Enhances productivity**

Our policy on quality centers on quality targets aimed at preventing defects, and sustained improvements through a focus on productivity, cost competitiveness, quality, and overseas operations.

Our ongoing efforts to enhance quality include ISO 9001-based quality management, and evaluating operational conditions through internal audits and management reviews twice a year. Moreover, all employees, including those at overseas subsidiaries, participate in efforts aimed at raising quality awareness each year in November, which we have selected as our month to focus on quality.


CKD

Quality · Environmental Policy

CKD is determined to assure continuous improvement of quality and environmental management system across-the-board to "provide products and services that satisfy our customers" with reliability and efficiency.

【Quality】
1. Practice activities to bring complaints and defects down to "zero".

2. Build a global and innovating corporate culture:
   a) Increase the ratio of overseas manufacturing and sales,
   b) Ascertain appropriate specifications and improve quality,
   c) Improve cost efficiency,
   d) Improve productivity.

【Environment】
1. Promote development and sales of environmental load reduction products.

2. Identify and comply with the environmental regulations and their requirements, including social life of persons working at CKD, suppressing CO_2 emissions and preventing environmental pollution.
   a) Promote energy saving, resource saving and building energy saving production lines,
   b) Reduce environmental polluting materials,
   c) Reduce waste.

April, 2020
CKD Corporation

Kazunori Kajimoto
President

Katsuhito Okuoka
Director & Senior Managing Executive Officer

Quality and Environmental Policies

ISO Certification for CKD Group Companies in Japan and Overseas

ISO 9001, ISO 14001 Certification

	Certification	Certification Date
CKD Corporation	ISO 9001	Jun. 24, 1994
	ISO 14001	Dec. 8, 2000
CKD THAI CORPORATION LTD.	ISO 9001	Jan. 14, 2004
	ISO 14001	
CKD (China) Corporation	ISO 9001	Jan. 4, 2009
	ISO 14001	
CKD Nikki Denso Co., Ltd.	ISO 9001	Mar. 16, 2018

Initiatives

Case Study A: Implementing Own-Process Completion Activities

Don't create or continue to make defects, and don't allow defects to move to post-processing

With the aim of zero complaints and zero defects, we are promoting a quality policy that includes own-process completion*1 activities.

Our main activities for entrenching this policy include Challenge 1000*2, which enters its fifth year this year, as well as activities started this fiscal year where each team in the Production Department aims to half their own number of defects.

Through these activities we are working to make improvements using process defects by quality control (QC) stories and provide opportunities for employees to learn while practicing own-process completion.

These activities are being carried out not only in domestic plants, but also in overseas production bases, with a focus on improving plant capabilities so that consumers around the world can use our products with confidence and peace of mind.

*1 Own-process completion: Centers on the idea that a manufacturer can guarantee the product quality of items produced in-house through the incorporation of machine and line quality measures.
We keep the customer in mind during every process to ensure that we do not create or continue to make defects, or allow defects to move into the next process in the line. An important point is to set specific quantitative production conditions for creating a good product and evaluation standards for evaluating whether a product is good.

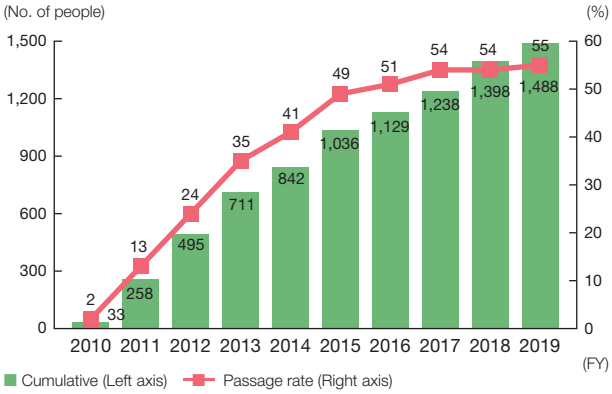
*2 Challenge1000: CKD has established a policy of designating the mass production line at a plant with a high defect rate as a priority line, and set a defect rate reduction target of 1,000ppm (0.1%). The idea is for all departments to work together to make continuous improvements, and through these activities provide OJT for own-process completion and improve the quality control process (QC story).

Case Study B: Using QC Testing to Improve Skills

Raising quality awareness on a companywide basis through QC certification

With the goal of boosting quality awareness companywide, we launched activities promoting QC testing in fiscal 2010 and over the ten years through fiscal 2019, 1,488 people had taken and passed the exam, including not only those working in technology, production, and purchasing, but also those focused in sales and working in the head office. One positive result of many people taking the exam was an increased basic knowledge of quality and the formation of a common language, which has contributed to ongoing improvements and effective management. QC certification exams are planned each year as part of the company's training plan, and have become entrenched on a sustained basis at a companywide level. We are also engaged in activities designed to contribute to those taking the exam to successfully pass it, including seminars conducted by an in-house instructor being held immediately before the exam.

Number of people passing the QC exam



Case Study C: Efforts during Quality Month

Products and services that satisfy our customers

November is "Quality Month" at CKD and all employees participate in related activities, including the sharing of quality month messages from the Company, executive QC patrols, reports and evaluations on quality-related activities, and the creation of quality slogans, with the best of these being recognized with awards. Checks on progress toward meeting quality targets and daily improvement activities that take place during Quality Month not only raise awareness regarding quality, but also allow the Company to recognize successful efforts, improving on-site operations and employee motivation. With the goal of deepening quality awareness, we also communicate our ideas on quality to employees both in Japan and overseas through Quality Month messages. Finally, the company president and executives participate in QC patrols, demonstrating their commitment to quality by directly observing quality conditions at the company's production and manufacturing facilities.

QC Patrol

Case study D: Introducing the QC Meister Program

Cultivating experts who can play a key role

We have introduced the QC Meister Program with the aim of cultivating personnel who can function as quality experts who can play a key role in quality control at our workplaces. We have set three levels of QC proficiency from a One-Star Meister to a Three-Star Meister and the conditions for achieving the top rank level of a Three-Star Meister are extremely difficult, including acquiring Grade 1 in the QC Kentei (an exam assessing QC knowledge). Achieving meister certification provides an employee with status, further raising motivation, and we look forward to seeing these personnel raise the level of the Company's QC activities.

Case study E: Automating Inspections

Automation using image processing to realize labor-free visual inspections

Visual inspections pose challenges such as human error, as they rely on human sight and it is difficult to make quantitative judgements. Therefore, we are working on automating visual inspections at all our plants. We are accelerating development of the required image recognition and processing by applying the image processing technology we have cultivated over 20 years through an easy-to-use Facilea*3

*3 Facilea is a visual programming tool for image processing that was launched in May 2020

Case Study F: Quality Awareness Activities for Suppliers

Quality policy briefings and quality improvement activities

As part of Quality Month, the Company holds briefings for its major suppliers. In addition to explaining current quality policy details and reporting on the state of quality over the past year, the Quality Assurance Department provides an explanation on the importance of modification control*4. We conduct a survey after the briefing, focusing on the quality control status of each supplier and explanations that have been provided to secondary suppliers. We also conduct follow-up activities to ensure the implementation of content provided during the briefings.

*4 Modification Control refers to efforts aimed at minimizing risk of defects in products delivered to customers as the company or supplier makes shifts in manufacturing methods, materials, or machinery.
In addition to verification testing, we also suggest changes to customers and implement them if approved.