

VI Promoting Environmental Management System

1. Environmental Management

1) Obtaining ISO14001 Certification

<Reported in FY2017>

Considering international standard ISO14001 as an effective tool to promote environmental management, Kikkoman obtained ISO14001 certification for the Noda Plant (currently Noda Factory, Kikkoman Food Products Company) in May 1997, as the first case in the Japanese food industry.

These efforts were followed by the Kikkoman Group's goal of "acquiring ISO14001 certification for the major offices by FY2006," which was successfully achieved in February 2006 when the Kinki Branch Office acquired ISO14001 certification.

● Closing Meeting of judging multi-site ISO14001 certification(May 2011, Kikkoman Tokyo Head Office)



● Kikkoman Group multi-site ISO14001 certification



In June 2011, the Kikkoman Group obtained the multi-site ISO14001 certification for major domestic companies and further strengthened the environmental management promotion system.

Chronology of ISO14001 certifications of Kikkoman Group Companies

Year	companies
1997	Noda Plant Kikkoman Corp. (currently Noda Factory, Kikkoman Food Products Company)
1998	Takasago Factory, Kikkoman Corp. (currently Takasago Factory, Kikkoman Food Products Company)
1999	Fukushima Factory, Nippon Del Monte Corporation
	Chitose Factory, Kikkoman Corp. (currently Hokkaido Kikkoman Company)
2000	Noda Factory, Kikkoman Corp. (Noda and Nakane areas) (currently Noda Factory, Kikkoman Food Products Company)
	Gunma Factory, Nippon Del Monte Corporation Manns Wine Co., Ltd.
2001	Nagano Factory, Nippon Del Monte Corporation
	Noda Factory, Kikkoman Corp. (Nakanodai area) (currently Nakanodai Plant, Heisei Foods Company*)
2002	Gifu Factory, Kibun Food Chemifa Co., Ltd. (currently Gifu Plant, Kikkoman Soyfoods Company)
	Wisconsin Plant, Kikkoman Foods, Inc. (KFI) (U.S.)
	Kikkoman Foods Europe B.V. (KFE), Netherlands
	Kikkoman (S) Pte., Ltd. (KSP), Singapore
2003	Kamogawa Plant, Kibun Food Chemifa, Co., Ltd. (currently Kamogawa Plant, Kikkoman Biochemifa Company)
	Edogawa Plant, Kikkoman Corp. (currently Edogawa Plant, Kikkoman Biochemifa Company)
	Brewing Factory, Kikkoman Corp. (currently Nagareyama Kikkoman Co., Ltd.)
2003	California Plant, Kikkoman Foods, Inc. (KFI) (U.S.)
	Saitama Factory, Kibun Food Chemifa Co., Ltd. (currently Saitama Plant, Kikkoman Soyfoods Company)

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2004	R&D Division, Kikkoman Corp. (currently R&D Division, Kikkoman Group) Noda Head Office, Kikkoman Corp. (currently Noda Head Office, Kikkoman Group)
2005	Nippon Del Monte Corp. received certification again as one corporate entity Tokyo Head Office, Kikkoman Corp. (currently Tokyo Head Office, Kikkoman Group)
2006	Kinki Branch Office, Kikkoman Corp. (currently Kinki Branch Office, Kikkoman Food Products Company)
2011	Multi-site certification of the Kikkoman Group for Japan Edogawa Foods Company* joined a target company under the multi-site certification.
2013	Takara Shoyu Co., Ltd. joined a target company under the multi-site certification.
2015	Ibaraki Plant, Kikkoman Soyfoods Co. joined a target company under the multi-site certification.

*Heisei Foods Co. merged Edogawa Foods Co. and changed its name to Kikkoman Foodtech Co. on April 1, 2017.

<Reported in FY2019>

Since the international standard of ISO14001 was revised in September 2015, the Kikkoman Group reviewed and rebuild its environmental management system (EMS) and re-acquired the multi-site ISO14001 following the new standard in June 2017.

*Saitama Kikkoman Company joined the multi-site certification at this time.

2) Implementation of Environmental Audit

<Reported in FY2017>

For those companies having obtained ISO14001 certification both in Japan and abroad, regular internal environmental audits are conducted by a team of qualified employees. In addition, the evaluation of ISO14001 certification maintenance and renewal is conducted by accredited outside certification bodies. The results of the audit and judgment are shared with all concerned companies in order to upgrade their environmental management levels

● Komoro Winery, Manns Wine Co., Ltd.



● ISO14001 certification maintenance evaluation at Komoro Winery (April, 2013)



The Environmental Department of Kikkoman Corp. conducts "Company Visits" to member companies (factories, etc.) one or more times yearly to exchange information with managers and employees responsible for environment-related facilities and to inspect environment-related facilities in the respective companies.

During "company visits" in FY2015, the Department staff heard explanations on current operation conditions, progress in implementing the plan to save energy and reduce CO₂ emissions at the factory, measures to observe environmental-related laws and regulations, and measures to prevent "environmental close-call incidents" (mentioned later) at each place. Upon analyzing the information provided, problems were identified, and preventive measures were suggested. The staff helped member companies formulate plans for more efficient energy saving processes and methods for reduction of CO₂ emissions.

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- Information exchange session of Company Visit (November 2014, Edogawa Plant, Kikkoman Biochemifa Co.)



- The wastewater treatment facility inspection (November 2015, Gunma Plant, Nippon Del Monte Corp.)



- Information exchange session of Company Visit (July 2015, Nagano Plant, Nippon Del Monte Corp.)



- The wastewater treatment facility inspection (July 2015, Main Plant, Heisei Foods, Co.)



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- Information exchange session of Company Visit (December 2016, Gunma Plant, Nippon Del Monte Corp.)



- The plant inspection (November 2016, Third Production Department, Noda Factory, Kikkoman Food Products Co.)



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- Information exchange session of Company Visit (December 2017, Saitama Kikkoman Co.)



- The wastewater treatment facility inspection (January 2017, Nagareyama Kikkoman Co., Ltd.)



<Reported in FY2017>

Further, the Environmental Department conducts internal environmental audits and inspections of environment-related facilities at major overseas manufacturing companies every three years, and provides environmental education to employees on those occasions.

- President Kikkoman Zhenji Foods Co., Ltd.



- Internal environmental audit of PKZ (FY2014)



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● Kikkoman Foods Europe B.V. (KFE)



● Information exchange session at a wholesale company in France (FY2015)



● Wisconsin Plant, Kikkoman Foods, Inc. (KFI)



● Environment education to Wisconsin Plant employees (FY2016)



In FY2014, the Kikkoman Environmental Department staff visited three manufacturing companies in Asia, namely, President Kikkoman Inc. (PKI, Taiwan), Kunshan President Kikkoman Biotechnology Co., Ltd. (KPKI, China), and President Kikkoman Zhenji Foods Co., Ltd. (PKZ, China). In FY2015, Europe was chosen and the team visited its manufacturing company, Kikkoman Foods Europe B.V. (KFE, Netherlands) and the wholesale companies in Europe, and in FY2016, the staff visited the Wisconsin Plant of Kikkoman Foods, Inc. (KFI) and the wholesale companies in the United States. At each visit, the staff surveyed environmental preservation activities, and conducted environmental education programs for employees to enhance their awareness, sharing information on environmental preservation efforts.

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- Information exchange session in Kikkoman Sales USA, Inc. (FY2017)



- Information exchange session in KMS Service Inc. (FY2017)



- The lecture to the employees of Kikkoman (S) Pte. Ltd. (FY2017)



- Information exchange session in KTA and DMA (FY2017)



In the first half of FY2017 (in September, 2016), the Environmental department visited the California Plant of Kikkoman Foods, Inc. (KFI: U.S.), one of the manufacturing bases in the U.S., and wholesalers (JFC International Inc. (JFC: U.S.) and Kikkoman Sales USA, Inc. (KSU: U.S.), etc.), IT service management company (KMS Service Inc. (KMS: U.S.)). And, in the second half of FY2017 (in February, 2017), the department visited Kikkoman (S) Pte Ltd. (KSP: Singapore), Siam Del Monte Company Ltd (SDM: Thailand) and Del Monte Asia Pte Ltd (DMA: Singapore), etc.

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● The lecture to the employees of President Kikkoman Inc. (FY2018)



In FY2018 (in February, 2018), the department selected the Asia region and visited President Kikkoman Inc. (PKI: Taiwan), one of the manufacturing bases in the region.

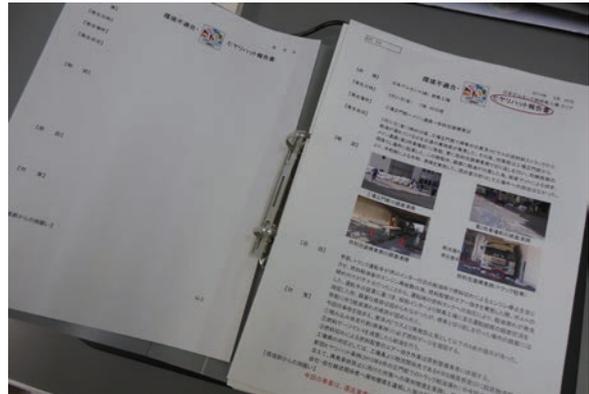
3) "Cross Internal Audit" and "Environmental Close-Call Report" <Reported in FY2017>

The Kikkoman Group holds regular information exchange meetings for the managers and office workers in charge of ISO14001 at all companies, offices, environmental facilities (wastewater treatment, waste storage facilities) to facilitate interaction among them. At the meetings, participants share all kinds of environment-related information including the enforcement and revision of laws and regulations, ISO14001 operation activities and problems in other companies, expertise and new technological advancements for pollution prevention and environmental preservation.

● Cross Internal Auditing (FY2013)



● Environmental Close-Call Report



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On the occasion of the Kikkoman Group obtaining multi-site ISO14001 certification for the entire group in FY2012, “Cross Internal Audit” and the “Environmental Close-Call Incident Report” were initiated in FY2013.

The “Cross Internal Audit” is an auditing system whereby an internal auditor of another company takes part in the internal environmental audit conducted in one company according to the ISO14001 standard. The aims of this system are to standardize the levels of auditing systems of different companies, build the capacity of internal auditors, enhance the quality of audits, and deepen the communication among people responsible for environmental auditing.

The “Environmental Close-Call Report” system obliges employees to report incidents they come across in their daily work activities which may lead to environmental pollution and which cause them emotional distress (Close-Call cases). At companies where “Close-Call incidents” occur, the causes should be investigated, and preventive measures should be examined and recorded in the “Environmental Close-Call Report.” The report is distributed among member companies for the purposes of sharing the information, and strengthening environmental pollution precautions.

2. Employee Environmental Education

1) General Education

<Reported in FY2017>

Group-wide consciousness for environment preservation is being enhanced by actively introducing lectures on environmental preservation in the employee training curricula of “new employee orientation,” “mid-level employee training,” and “training for employees posted overseas” which are conducted regularly by the Kikkoman Business Service Personnel Department. In addition, open lecture meetings on environmental preservation are held for employees for the same purpose.

● New employee orientation (April 2011)



● New employee orientation (April 2015)



[FY2016]

<Reported in FY2017>

In September 2015, lecture meetings for employees were held at the Noda Head Office (Noda city, Chiba prefecture) and Tokyo Head Office (Minato-ku, Tokyo) of the Kikkoman Group with lecturer, C.W. Nicol who has been engaged in environmental preservation activities for many years.

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● Lecture Meetings with C. W. Nicol (September 2015, Noda Head Office and Tokyo Head Office of the Kikkoman Group)



Born in Wales, Great Britain, C. W. Nicol has been living in Nagano prefecture since 1980 and obtained Japanese nationality in 1995. He established The C.W. Nicol Afan Woodland Trust and began efforts to revive a devastated forest and is bringing the natural environment of Kurohime back from destruction. He is engaged in supporting the rehabilitation work in the affected areas of the Great East Japan Earthquake.

He related his experiences with humor, and encouraged the audiences to be aware of the importance of nature such as forests, water, animals and plants, and to have an attitude to be more involved in nature.

Employees who joined his lecture commented, "I understood the importance of interacting with nature," "I realized the goodness of how fortunate Japan is to be so rich in nature," "He gave me a good chance to review the nature in my neighborhood."

【FY2017】

<Reported in FY2019>

In September 2016, lecture meetings for employees were held at Noda Head Office and Tokyo Head Office of the Kikkoman Group with lecturer, Dr. Takeshi Yoro.

● Lecture Meetings with Dr. Takeshi Yoro (September 2016, Noda Head Office and Tokyo Head Office of the Kikkoman Group)



Dr. Takeshi Yoro is an emeritus professor (anatomy) of University of Tokyo, and a famous social critic of wide range of issues including the natural environmental preservation. Especially, saying that bug-hunting is his hobby, he is pointing out a lot of dangerous changes in natural field where insects are living, and which have had strong impacts on human beings.

In the lecture, he laid stress on, "We have to realize that human beings are a part of nature. For example, we, Japanese whose staple food is rice, are so closely related to rice fields that the rice fields' changes will have immediate effects on our lives,"

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“Urbanization, which we are moving forward all over the world today, has been weakening the tie between nature and human beings. With the lapse of urbanization, we will lose natural powers which are important for us to live as a part of nature. Decline in birthrate is one of the representative examples,” “We have to come back to the natural fields more often,” and “We do not have any reasons to destroy the nature where insects live happily.”

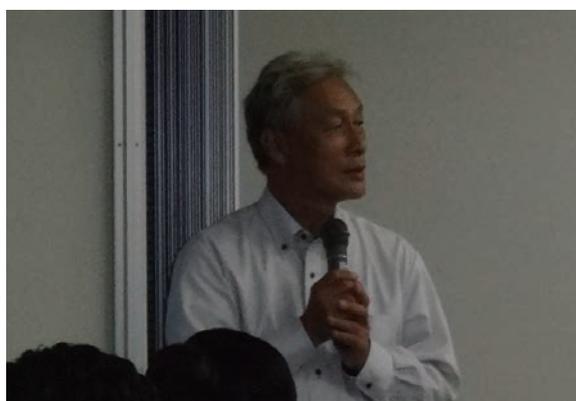
Some of the representative responses of the audiences are, “I understand the natural preservation is one of my own problems,” and “I saw coming back to my native land, full of nature, in a new light.”

【FY2018】

<Reported in FY2019>

In September 2017, lecture meetings for employees were held at Noda Head Office and Tokyo Head Office of the Kikkoman Group with lecturer, Dr. Yuji Kishi.

● Lecture Meetings with Dr. Yuji Kishi (September 2017, Noda Head Office and Tokyo Head Office of the Kikkoman Group)



Dr. Yuji Kishi is an emeritus professor (ecology) of Keio University, and has been appealing to the public the importance of understanding “water flow” as “water system” and engaged in many practical activities to control flood and landslide, and to preserve water system from a headwater to an estuary as a total.

In the lecture, showing a lot of scenes of watershed, he laid stress on, “In order to control flood and landslide, it is important to grasp a river from the view points of not only stream or amount of water but also water system as a whole,” “A natural environment preservation plan has to be made based on distinctive features which each natural environment has concerning its own existence and changing direction,” and “Human beings have been co-existing with natural environment from the beginning of history. There is no natural environment which does not have any ties with human beings. Therefore, for preserving natural environments, it is better to take care of natural environments in search of the ideal relationship between human beings and nature than to try to protect nature from artificial changes.”

Some of the representative responses of the audiences are, “I could understand the importance of the idea of Water System concretely,” and “Under the unordinary weather conditions, we have to observe rivers more carefully from the view point of Water System.”

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2) Specialized Education

<Reported in FY2017>

Various capacity building training sessions are held regularly in the Kikkoman Group to upgrade the capabilities of managers and responsible employees in respective specialized engagements. They include "Training of ISO14001 Internal Environmental Auditors," "Skill Up Training of ISO14001 Internal Environmental Auditors," "Skill Up Training for Environmental Managers," "Training for Industrial Waste Managers," and "Training for Wastewater Treatment Facility Managers."

The "Training of ISO14001 Internal Environmental Auditors" is held in July every year with lecturers invited from various consulting companies specializing in environmental management. In FY2016, the seminar was attended by 24 internal auditors-to-be each time and they studied the environmental management system (EMS), ISO14001 requirements, and tasks required for conducting internal environmental audits.

● Training of ISO14001 Internal Environmental Auditors (July 2013)



● Training of ISO14001 Internal Environmental Auditors (July 2015)



In FY2014, the "Skill Up Training of ISO14001 Internal Environmental Auditors" started for active internal auditors who had participated in an internal auditor training seminar. In this seminar, practical points and viewpoints for auditing have been raised to skill up auditors' capabilities.

<Reported in FY2019>

Since the international standard of ISO14001 was revised in September 2015, the Kikkoman Group reviewed and rebuild its environmental management system (EMS).

Therefore, the Kikkoman Group promoted the training for internal environmental auditors to carry out their jobs pursuant to the new international standard (ISO14001: 2015) in FY2017 and FY2018.

● Skill Up Training of ISO14001 Internal Environmental Auditors (September 2016, Tokyo Head Office of the Kikkoman Group)



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In FY2017, the seminars “Skill Up Training of ISO14001 Internal Environmental Auditors” by an external specialist were held six times, and 200 employees (licensees of internal environmental audit) joined in total. Also, in FY2018, the seminars by the Environment Division of the Kikkoman Corp. were held nine times, and 128 employees, including internal environmental auditors, joined in total.

- Skill Up Training of ISO14001 Internal Environmental Auditors
(left: September 2017, Nagareyama Kikkoman Co., Ltd.)
(right: April 2018, Takasago Factory of Kikkoman Food Products Co.)



The Kikkoman Group re-acquired the multi-site ISO14001 following the new standard in June 2017.

<Reported in FY2017>

The “Training for Industrial Waste Manager” is organized for industrial waste managers in major affiliated companies in Japan. During the seminars conducted in March 2014 and March 2015, basic matters of industrial waste management were confirmed which included the classification of waste, the selection and outsourcing contracts for collection and transportation and disposal of waste, handling (application, operation, and confirmation) of industrial waste management sheets (“manifests”) and electronic manifests. After that, representatives from a waste collection and transportation contractor and a waste disposal contractor were invited as lecturers to explain current technologies for waste treatment. In the seminar in March 2016, a consultant specializing in waste was invited as a lecturer to explain waste-related laws and discharger responsibilities, to help environmental managers gain legal knowledge and to enhance their capacity.

Other than these, regional seminars were held at different places. In the Noda and Nagareyama district, an information exchange meeting on handling general waste was held for waste managers in member companies in June 2015, an explanation meeting on the handling of an electronic manifest was held in January 2016. In November 2015, a study meeting was organized for waste managers and others at Katsunuma Winery (Yamanashi prefecture) of Manns Wine Co., Ltd. to study the flow of writing the manifest at the time of collecting, transporting, and disposing waste, principles in signing contracts with contractors of waste collection, transportation and disposal, and actual breach of contract cases. At the end of the study meetings, tests were given to measure the proficiency level and capabilities of the participants.

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● Training for Industrial Waste Managers (March 2014)



● Training for Industrial Waste Managers (March 2016)



<Reported in FY2019>

● Training for Industrial Waste Managers (March 2017)



● Training for Industrial Waste Managers (March 2018)



In FY2017, two seminars for industrial waste managers were held.

In December 2016, consultants specializing in waste were invited as lecturers to explain the “Kikkoman Group Guideline for Industrial Waste Treatment,” used when to handle industrial waste. And in March 2017, consultants specializing in waste were invited as lecturers to explain the handling of industrial waste management sheets “manifests.”

As for FY2018 in December 2017, consultants specializing in waste were invited as lecturers to explain the “Kikkoman Group Guideline for Industrial Waste Treatment.” And in March 2018, consultants specializing in waste were invited as lectures to explain the classification of industrial waste, the contracts with companies on transportation and disposal of waste, and handling of industrial waste management sheets and electronic manifests.

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<Reported in FY2017>

The “Training for Wastewater Treatment Facility Managers” is held for the managers of wastewater treatment facilities in major manufacturing companies of the Kikkoman Group. In the seminar held in July 2013, after listening to a lecture by a specialist from a wastewater treatment agency on the latest wastewater treatment technology, participants reported on the current situation of wastewater treatment facilities in their respective workplaces and discussed how to improve the situations. In the seminar in August 2014, specialists working at a wastewater treatment company were invited as lecturers at the wastewater treatment facility in Noda Factory, Kikkoman Food Products, Co., and participants reviewed their practical work of wastewater treatment under instruction by the specialists. This practical training was highly evaluated as “useful and practical” by participants. In July 2015, another seminar was held at the wastewater treatment facility of Nagareyama Kikkoman Co., Ltd. Here, the results of “wastewater diagnosis” were reported, and participants studied more efficient and stable methods of facility management through practical training and lectures.

● Training for Wastewater Treatment Facility Managers (August 2014, Noda Factory, Kikkoman Food Products Co.)



● Training for Wastewater Treatment Facility Managers (July 2015, Nagareyama Kikkoman Co., Ltd.)



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<Reported in FY2019>

In July 2016, the seminar titled “Training for Wastewater Treatment Facility Managers” was held at the research and development facility of the wastewater treatment company. The specialists of the company reported the diagnosis results of the wastewater treatment facilities of two plants in the Kikkoman Group, and proposed more efficient and stable methods of facilities management. After the lecture, the participants took a tour of this facility, and studied the latest facilities, equipment and chemicals used for wastewater treatment.

In July 2017, a seminar was held at the Tokyo Head Office of the Kikkoman Group. In the seminar, the specialists working at the wastewater treatment company were invited as lecturers to explain the roles and efficient management of microorganisms on the activated sludge process of the wastewater treatment.

● Training for Wastewater Treatment Facility Managers (July 2017, Tokyo Head Office of the Kikkoman Group)

