

Establishment of Environmental Management Systems

Kawasaki is establishing environmental management systems (EMS), and is conducting various initiatives aimed at realization of a low-carbon society, realization of a recycling-oriented society, and realization of a society coexisting with nature.

The long-term vision set forth for 2010 and 2020 serves as a guideline for the achievements we intend to realize through EMS operation. The appropriate operation of EMS has led to continued reductions in our environmental impact, and we will continue EMS operations going forward, with an aim toward further achievements.

Key Strategies and Targets under Ninth Environmental Management Activities Plan (FY2017–FY2019)

Enhancement of environmental management systems

Targets

① Reinforce environmental management capabilities and lower environmental risk

- Certified business sites to complete transition to ISO 14001:2015
- Visit domestic and overseas production sites to better pinpoint status of environmental management

Kawasaki Group EMS

To promote environmental management throughout the Group, Kawasaki and its subsidiaries embrace the practice of building an environmental management system.

Kawasaki's manufacturing sites and domestic and overseas subsidiaries have completed the acquisition of ISO 14001 certification or simplified EMS certification, or established EMS through self-declaration within the scope of its stipulation.

The latest information on the establishment of EMS within the Group is shown in Figure 22, while the current situations for acquiring ISO 14001 certification for Kawasaki's manufacturing sites is shown in Table 7 and the status of EMS establishment at subsidiaries is shown in tables 8 and 9. In response to the revision of ISO 14001, we are promoting the transition to ISO 14001:2015.

For sites engaged in EMS implementation, efforts are being directed toward the collection of environmental data and the sharing of such data at the Head Office Environmental Management Division. In addition, this division makes visits to subsidiaries, in order to further instill our environmental management policy as a Group. During fiscal 2017, visits were made to four large-scale subsidiaries in Japan, in order to share awareness with local departments.

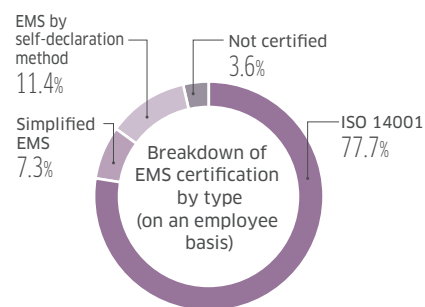


Figure 22: Breakdown of EMS Certification, by Type, within the Group (on an employee basis)

Note: Denominator is the number of employees within the Group on a consolidated basis.

Table 7: Current Situations for Acquiring ISO 14001 (JIS Q 14001) Certification for Kawasaki Production Bases

Internal companies		Date acquired	Registration
Ship & Offshore Structure Company	Kobe Works	Aug. 2002	DNV GL
	Sakaide Works	Aug. 2002	DNV GL
Rolling Stock Company		Feb. 2002	LRQA
Aerospace Company		Feb. 2002	BSK
Gas Turbine & Machinery Company	Gas Turbine Division	Mar. 2000	LRQA
	Machinery Division	Dec. 2000	NK
Plant & Infrastructure Company		Nov. 1999	JICQA
Motorcycle & Engine Company		Feb. 2000	DNV GL
Precision Machinery Company	Nishi-Kobe Works	Feb. 1998	DNV GL
	Robot Division	Mar. 2011	DNV GL

LRQA: Lloyd's Register Quality Assurance Limited, JICQA: JIC Quality Assurance Ltd., NK: Nippon Kaiji Kyokai (ClassNK), BSK: Bouei Kiban Seibi Kyoukai (Defence Structure Improvement Foundation), DNV GL: DNV GL Group

Risk Management

In addition to approaches based on our risk management structures, we hold liaison conferences from time to time for personnel with environmental responsibilities to ensure adherence to environmental laws and regulations, dissemination and full understanding of legal revisions, and the enhancement of their capabilities. These conferences, which are held under the direction of the Head Office Environmental Management Division and personnel with environmental responsibilities at the Group, focus on compliance with environmental laws and regulations to preempt environmental accidents and other situations.

During fiscal 2017, we confirmed the response status to managers responsible for environmental protection in advance of the enforcement of the Act on Preventing Environmental Pollution of Mercury.

Compliance with Laws and Regulations

Within the Kawasaki Group, environmental management activities are undertaken in the Group's efforts to comply with environmental laws and regulations.

There were no cases subject to administrative actions in fiscal 2017.

While there was one case involving a complaint from neighborhood residents related to noise generated from a defect in a portion of the steam piping within a plant, the issue was resolved by repairing the piping. In order to prevent the occurrence of similar incidents, information is shared internally through our environmental management systems.

Table 8: Domestic Subsidiaries

Oversight organization	Company	EMS level*/ Date of establishment	
		EMS level*	Date of establishment
Ship & Offshore Structure Company	Kawasaki Techno Wave Co., Ltd.	1	Aug. 2000
	Kawaju Support Co., Ltd.	2	Dec. 2005
	Kawasaki Marine Engineering Co., Ltd.	3	Apr. 2013
	KHI JPS Co., Ltd.	3	Mar. 2008
Rolling Stock Company	Alna Yusoki-Yohin Co., Ltd.	1	Nov. 2008
	Kawasaki Rolling Stock Component Co., Ltd.	1	Aug. 2002
	Kawasaki Rolling Stock Technology Co., Ltd.	1	Aug. 2002
	Kansai Engineering Co., Ltd.	3	Aug. 2002
	Sapporo Kawasaki Rolling Stock Engineering Co., Ltd.	2	Jun. 2011
	Nichijo Manufacturing Co., Ltd.	2	Oct. 2005
Aerospace Company	Kawaju Gifu Engineering Co., Ltd.	1	Feb. 2002
	Kawaju Gifu Service Co., Ltd.	1	Feb. 2002
	KGM Co., Ltd.	1	Feb. 2002
	NIPPI Corporation	1	Dec. 2006
Gas Turbine & Machinery Company	Kawaju Akashi Engineering Co., Ltd.	1	Mar. 2000
	Kawasaki Thermal Engineering Co., Ltd.	1	Apr. 2002
	Kawasaki Machine Systems, Ltd.	1	Mar. 2000
	Kawasaki Prime Mover Engineering Co., Ltd.	1	Dec. 2002
	Kawasaki Naval Engine Service, Ltd.	3	Aug. 2016
Plant & Infrastructure Company	KEE Environmental Construction, Co., Ltd.	1	Dec. 2003
	EarthTechnica M&S Co., Ltd.	3	Apr. 2013
	Kawasaki Environmental Plant Engineering Co., Ltd.	1	Jun. 2002
	Kawaju Facilitatech Co., Ltd.	2	Jul. 2013
	Kawasaki Engineering Co., Ltd.	3	Oct. 2009
	EarthTechnica Co., Ltd.	1	Sep. 2000
Motorcycle & Engine Company	Kawasaki Motors Corporation Japan	1	Feb. 2008
	K-Tec Corp.	1	Dec. 2014
	Technica Corp.	3	Mar. 2012
	Autopolis	2	Dec. 2011
	Union Precision Die Co., Ltd.	1	Jul. 2006
Precision Machinery Company	Kawasaki Hydromechanics Corporation	1	Jun. 2007
	Kawasaki Robot Service, Ltd.	1	Apr. 2012
Head Office	Kawasaki Trading Co., Ltd.	1	Dec. 2004
	Kawaju Service Co., Ltd.	1	Feb. 2000
	Kawasaki Technology Co., Ltd.	3	Oct. 2011
	Kawasaki Life Corporation	2	Jul. 2006
	K Career Partners Corp.	2	Mar. 2007
	Benic Solution Corporation	2	Feb. 2006

Table 9: Overseas Subsidiaries

Oversight organization	Company	Location	EMS level*/ Date of establishment	
			EMS level*	Date of establishment
Rolling Stock Company	Kawasaki Rail Car, Inc.	U.S.A.	3	Jul. 2015
Gas Turbine & Machinery Company	Kawasaki Gas Turbine Asia Sdn. Bhd.	Malaysia	3	Mar. 2013
	Kawasaki Gas Turbine Europe GmbH	Germany	3	Mar. 2013
	Wuhan Kawasaki Marine Machinery Co., Ltd.	China (PRC)	1	Jul. 2009
Plant & Infrastructure Company	KHI Design & Technical Service Inc.	Philippines	3	Nov. 2011
Motorcycle & Engine Company	Kawasaki Motors Corp., U.S.A.	U.S.A.	3	Mar. 2013
	Kawasaki Motors Pty. Ltd.	Australia	3	Mar. 2013
	PT. Kawasaki Motor Indonesia	Indonesia	3	Jan. 2012
	Kawasaki Components da Amazonia Ltda	Brazil	3	Jun. 2013
	Kawasaki Motores do Brasil Ltda.	Brazil	3	Jun. 2013
	Kawasaki Motors Europe N.V.	Netherlands	3	Feb. 2014
	Kawasaki Motors (Phils.) Corporation	Philippines	3	Jan. 2012
	Kawasaki Motors Manufacturing Corp., U.S.A.	U.S.A.	1	Apr. 2003
	Kawasaki Motors Enterprise (Thailand) Co., Ltd.	Thailand	1	Dec. 2011
	Canadian Kawasaki Motors Inc.	Canada	3	Feb. 2013
Precision Machinery Company	Kawasaki Precision Machinery (Suzhou) Ltd.	China (PRC)	1	Dec. 2007
	Kawasaki Precision Machinery (UK) Ltd.	UK	1	Nov. 2001
	Kawasaki Chunhui Precision Machinery (Zhejiang) Ltd.	China (PRC)	1	Nov. 2012
	Flutek, Ltd.	South Korea	1	Nov. 2005
	Kawasaki Robotics (Tianjin) Co., Ltd.	China (PRC)	3	Nov. 2012
	Kawasaki Robotics GmbH	Germany	3	Nov. 2012
Head Office	Kawasaki Robotics (U.S.A.) Inc.	U.S.A.	1	Feb. 2006
	KHI (Dalian) Computer Technology Co., Ltd.	China (PRC)	3	May 2013

*Level 1: ISO 14001 registration
Level 2: Simplified EMS certification
Level 3: Self-declaration of EMS establishment

Promoting Environmental Communication

● Raising Environmental Awareness

We are engaged in public relations activities aimed at enhancing the perception and awareness of environmental issues among each and every employee of the Group. We conduct ongoing awareness raising activities including the publication of environment-related articles in the Kawasaki internal bulletin, distribution of the President's message for Environment Month, and distribution of information (environmental data, case examples of energy saving, etc.) through our intranet, so that employees can put environmentally conscious activities into practice not only at the workplace, but also in local communities and homes.



Figure 23: Articles featured in internal bulletins



Figure 24: President's message on environmental management

Table 10: Number of Qualified Pollution Control Managers

Air	82
Water	69
Noise, vibration	38
Others	77
Total	266

Table 11: Number of Qualified Energy Managers

Energy managers	73
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● Environmental e-Learning

To maintain and improve environmental awareness among employees throughout the domestic Group, we offer environmental e-learning opportunities to new employees at both Kawasaki and domestic subsidiaries. In fiscal 2017, approximately 1,100 people completed the training.

● Cultivating Qualified Managers

To enrich management activities emphasizing energy and the environment, we are striving to cultivate individuals with legal qualifications required under laws and regulations related to energy and the environment. The number of employees with qualifications in fiscal 2017 is shown in tables 10 and 11. In addition, as an internal qualification, we offer training for internal ISO 14001 environmental management and environmental auditors, through which approximately 80 employees acquired qualifications in fiscal 2017. Furthermore, follow-up training has been conducted for employees that have already participated in training to support the transition to ISO 14001:2015, and approximately 1,200 employees acquired qualifications in fiscal 2017.

Transition to ISO 14001:2015 Under Way

In September 2015, ISO 14001:2004, the international standard for environmental management systems, was revised to ISO 14001:2015. An overview of the main revisions is as follows:

- Approach toward strategic environmental management
- Strengthening of leadership
- Consideration of environmental protection
- Improvements in environmental performance
- Consideration from lifecycle perspective
- Development of communication
- Approach toward documentation that strengthens the independence of organizations

By adopting these concepts, a departure has been made from conventional supportive environmental protection, to a form of environmental management that shifts from protective to proactive environmental activities, requiring environmental contributions in the core business, as well.

At the implementation stage aimed at transition, we are establishing environmental management systems and conducting activities based on ISO 14001:2015, and conducting internal audits within the organization to confirm the status of these activities. As it is necessary to develop internal auditors who understand ISO 14001:2015 for these internal audits, basic internal training is being conducted to that end. During fiscal 2017, intensive training for the transition to ISO 14001:2015 was conducted for employees who have already received qualifications as internal auditors for ISO 14001:2004 within the Group, as we constructed a structure capable of supporting the revised standard.

The deadline for the transition to ISO 14001:2015 is September 14, 2018, and in fiscal 2017, this transition was completed for the Precision Machinery Company and Ship & Offshore Structure Company. Work towards this transition is also under way as planned for our other business segments.