KITZ Group Principle of Environmental Activities

KITZ Group companies aspire to become operations worthy of society’s confidence through the supply of environmentally friendly products and services and promotion of environment-responsive corporate activities.

KITZ Group Companies: Environmental Action Policy

KITZ Group companies shall recognize environmental issues as an essential perspective of corporate management and every employee shall positively participate in the following activities.

1. Development and supply of environmentally friendly products and services
2. Effective use of resources
3. Promotion of reduction, reuse and recycle of waste
4. Prevention of environmental contamination
We aim to promote environment-responsive business operations across our entire group while simultaneously pursuing risk prevention and cost reduction.

### The Group’s Target

1. Enhancement of Environmental Management System
   We have completed certification for ISO 14001 at all our production plants (seven locations) in Japan and will now expand efforts for obtaining ISO 14001 certification to our overseas bases. We will strive to complete the acquisition of ISO 14001 certification in the near future at all overseas manufacturing bases with the aim of building an environment management system as a truly global company.
   - ISO 14001 certification for overseas manufacturing operations
   - Construction of a management system for data related to the environment

2. Reduction in Environmental Impact and Compliance with Environment-Related Laws and Regulations
   Besides complying with various environment-related laws and regulations for addressing environmental problems amid a tightening of restrictions worldwide, including in Japan, Europe, Asia and the United States, we also engage in activities to eliminate all environmental risk associated with our business activities.
   We are reducing consumption of energy and water used for our business activities and reducing the discharge of carbon dioxide, industrial waste and chemical pollutants from our business operations. We will effectively use finite resources while extensively eliminating waste to reduce environmental impacts in terms of total volume and basic units.
   Items to control:
   - CO₂ emissions
     Reduce CO₂ emission volume per unit of production (t/100 million yen) by 10% in 2020 from the figure in 2013. (Emission volume per unit of production: 58.81 in 2013 -> 52.71 in 2020)

### Concept and Initiatives for Environmental Management

In order to achieve the above target, KITZ will work on the basis of the concept of compatibility between “risk prevention” and “cost reduction”. The concept of “compatibility” here is based on the idea that an organization can reduce its future costs by proactively engaging in environmental activities now to prevent soil contamination and other damage; and that they can drastically reduce costs by minimizing their business-related waste. These will also result in widely giving back to society.

#### Enhancement of corporate business infrastructure
Group-wide environment-responsive management

- Risk prevention
- Balanced
- Cost reduction

- Enhancing management system
  - Building the basic structure
  - Human resource development
  - Visualization

- Streamlining action processes
  - Group activities
  - Application of management system

- Reducing environmentally hazardous substances
  - Combating global warming
  - Common issues (handling waste and water)
  - Care for local communities
  - Prevention of future risk issues
Environmental Target and Results

<table>
<thead>
<tr>
<th>Focussed subject</th>
<th>Actions planned</th>
<th>Results in FY2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Strengthening environmental management system</strong></td>
<td>Building the basic structure for group-wide environmental management system</td>
<td>1. Obtained the 2015 ISO14001 group-wide certification at seven locations in Japan and eight locations overseas 2. Conducted intra-departmental internal audit of the group’s status regarding health and safety and the environment</td>
</tr>
<tr>
<td><strong>2. Prevent global warming</strong></td>
<td>Reducing CO₂ emission</td>
<td>Sales consumption units: Target: 47.63t-CO₂/¥100 million Actual: 43.78t-CO₂/¥100 million</td>
</tr>
<tr>
<td><strong>3. Visualization of environmental risk and responses</strong></td>
<td>Legal compliance</td>
<td>1. Implemented measures to respond to the Soil Contamination Countermeasures Act (Amended) 2. Audited overseas bases to visually grasp their status (risk assessment; performance management) 3. Established an information gathering system regarding the environmental laws and regulations in each country</td>
</tr>
</tbody>
</table>

Environmental Data

- **CO₂ Emission (ton-CO₂)**
- **Energy Consumption (GJ)**
- **Discharge of Industrial Waste (ton)**
- **CO₂ emissions by energy source**
- **Water resources**
- **Consumption of PRTR Target Chemicals (tons of top 5 items)**

*PRTR target substances, for which annual handling amounts are less than 1t and content is less than 1%, are also compiled.*
We aim to promote environmentally responsive business operations across our entire group.

1. **Enhancement of Environmental Management System**
   - Eliminating waste to reduce environmental impacts in terms of total volume and basic units.
   - Reducing consumption of energy and water used for business activities and reducing the discharge of carbon dioxide.
   - Eliminating all environmental risks associated with business activities.

We have completed certification for ISO 14001 at all our production plants (seven locations) in Japan and will now expand efforts in enhancing management systems, human resource development, and other initiatives to mitigate environmental impacts.

**Enhancing management system**
- **Human resource development**
  - Reduce CO2 emission volume per unit of production (t/100 million yen) by 10% in 2020 from the base year.

**ISO 14001 certification**
- For overseas manufacturing operations.

**Concept and Initiatives for Environmental Management**
- **Enhancement of corporate business infrastructure**
- **Prevention of future risk issues**
  - **Care for local communities**
  - **Common issues** (handling waste and water)
  - **Combating global warming**
  - **Hazardous substances**

**Environmental Data**
- **2018**
  - **CO2 emissions**
    - Consumption units at manufacturers and service companies (except for sales offices)
    - **Forcused subject**
      - Compliance with related laws
      - Reduction in impact
      - FY2013
      - 8,143
      - 7.49
      - 6.81

**Legal compliance**
- **DISCHARGE OF INDUSTRIAL WASTE (TON)**
  - **Consumption of PRTR target chemicals (tons of top 5 items)**
  - **Environmental information**
  - **Pollution control**
  - **Resource circulation**
  - **Product recycling**
  - **Administrative duties**
  - **Research and development**
  - **Social activities**
  - **Damaged environment recovery**
  - **Other costs**

**Environmental Accounting**

**Environmental Conservation Costs**
- **Input**
  - **Major energies**
    - Electricity
    - Purchased electric power (1,000 kWh)
    - 91,609
    - Solar power generation (1,000 kWh)
    - 45
    - City gas
    - (t)
    - 12
    - LNG
    - (t)
    - 480
    - Bunker A
    - (k)l
    - 330
    - LPG
    - (t)
    - 1,956
    - Kerosene
    - (k)l
    - 609
    - Cold and hot water
    - (G)l
    - 3,458
    - **Water**
      - Clean water
      - (1,000 m³)
      - 156
      - Underground water
      - (1,000 m³)
      - 202

**Output**
- **Development and design**
- **Procurement**
- **Production**
- **Logistics**
- **Sales**

**Environmental Conservation Effects**
- **Effects related with input resources**
  - **Consumed total energies (GJ)**
    - FY2017: 537,223
    - FY2018: 537,199
  - **Consumed PRTR materials (ton)**
    - FY2017: 5,843
    - FY2018: 6,195
  - **Consumed clean water (m³)**
    - FY2017: 242,577
    - FY2018: 253,822
  - **Consumed underground water (m³)**
    - FY2017: 241,016
    - FY2018: 201,899

**Economic Effects of Environmental Conservation Activities**
- **Net financial gain**
  - **Details of effects**
    - **Profits**
      - Earned from recycling waste and used products: 442,741
    - **Saved expenditures**
      - Saved by energy saving activities: (1,29,238)
      - Reduced recycling expenditures: 201,329
      - Saved by waste reduction: 5,332
      - **Total**: 520,564
Strengthening Overseas Environmental Management

The KITZ Group formulated its “KITZ Global Vision 2020,” a Long-term Management Plan, and places promotion of environment-responsive business operations as a major item for strengthening its business foundations. In the Environmental Mid-term Plan, we set out a target for all production bases in Japan and overseas to acquire ISO 14001 certification. We will continue to make efforts toward the establishment of global environmental management.

Calculation Standards (Results in FY2018)

<table>
<thead>
<tr>
<th>Environmental performance index</th>
<th>Unit</th>
<th>Calculation method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total energy input amount</td>
<td>GJ</td>
<td>Energy amount consumed in business activities (GJ) = ∑ (each energy annual use amount x each unit calorific value) x 10⁻³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Source: Energy supply and demand results in 2017 (final) (published on April 12, 2019) Resources and Energy Agency</td>
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<tr>
<td></td>
<td></td>
<td>Electricity: 3.6 MJ/kWh</td>
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<tr>
<td></td>
<td></td>
<td>LPG: 50.1 MJ/kg</td>
</tr>
<tr>
<td>Raw materials input amount</td>
<td>Ton</td>
<td>Annual use amount of raw materials directly used for manufacturing of products (t)</td>
</tr>
<tr>
<td>Use amount of water</td>
<td>m³</td>
<td>Annual use amount of clean water and underground water (m³)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Business offices that have acquired Integrated ISO 14001 Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of business office</td>
</tr>
<tr>
<td>KITZ Corporation Nagasaki Plant</td>
</tr>
<tr>
<td>KITZ Micro Filter Corporation</td>
</tr>
<tr>
<td>KITZ Corporation Ina Plant</td>
</tr>
<tr>
<td>KITZ SCT Corporation</td>
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<tr>
<td>KITZ Corporation Kunshan</td>
</tr>
<tr>
<td>KITZ Corporation of Jiangsu Kunshan</td>
</tr>
<tr>
<td>KITZ Corporation of Europe, S.A.</td>
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<tr>
<td>KITZ Corporation of Taiwan</td>
</tr>
<tr>
<td>KITZ Corporation of Kunshan</td>
</tr>
<tr>
<td>KITZ Corporation of Jiangsu Kunshan</td>
</tr>
<tr>
<td>(7) Cephas Pipelines Corp.</td>
</tr>
<tr>
<td>(8) Filcore, Co., Ltd.</td>
</tr>
</tbody>
</table>

Target Period: Target period was FY2018 (April 1, 2018 – March 31, 2019) and the results for the period are reported. Scope of Reporting: KITZ Corporation and six group companies in Japan (see website).
Policy and Standards for Collection and Reporting of Environmental Performance Information: In compliance with environment-related laws and regulations, the report is published in accordance with the “KITZ Group Environmental Philosophy,” the “KITZ Group Environmental Action Guidelines,” the “KITZ Group Environment, Safety and Health Performance Data Calculation Guidelines,” and other environment-related internal regulations.
Published: September 2019
Next publication: July 2020 (to be issued every year)
KITZ Group Safety and Health Fundamental Philosophy

KITZ places the highest priority on safety and health in all of its activities based on the principle of showing respect for people. Group companies conduct extensive safety and health programs with the goal of zero accident.

KITZ Group Safety and Health Fundamental Policies

1. KITZ maintains stimulating and pleasant workplaces that contribute to the mental and physical wellbeing of all employees.

2. KITZ is dedicated to ensuring safety and health for all employees by complying with Japan’s Industrial Safety and Health Act and other associated laws and regulations as well as by adhering to internal rules and standards.

3. KITZ improves safety and health management by educating and training all employees with regard to the knowledge and skills needed for safety and health programs.

4. KITZ is dedicated to ensuring the safety of its machinery and equipment so that employees can do their jobs without concern.

5. KITZ reduces exposure to risk factors with the goal of eliminating potential sources of danger and harm to employees in workplaces.

Take Preventive Steps and Improve Safety Awareness Through Group-wide Safety and Health Programs

The company will address safety from two directions: “Enhancement of safety activities and systematic incorporation of prevention measures into production lines” and “Promotion of volunteer activities at workplaces (bottom-up approach via small group activities)”. Through this two-pronged approach, the company will encourage a change in every employee’s mindset and increase employees’ awareness with regard to safety, thereby reforming the corporate culture.

KITZ has formulated the following key actions as measures for employee safety and health with the aims of taking preventive steps for safety and improving safety awareness.

- Develop a management system (comply with safety and health related laws and regulations)
- Implement safety measures for machines, equipment and people (prevent similar accidents)
- Create workplace culture (promote zero accidents)

KITZ Group Safety and Health Activities

- Develop a management system
  - Create framework
  - Make it visible

- Implement safety measures for machines, equipment and people
  - Measures for equipment and environment
  - Measures for people

- Create workplace culture
  - Activate small group activities
  - Introduce enlightenment programs