



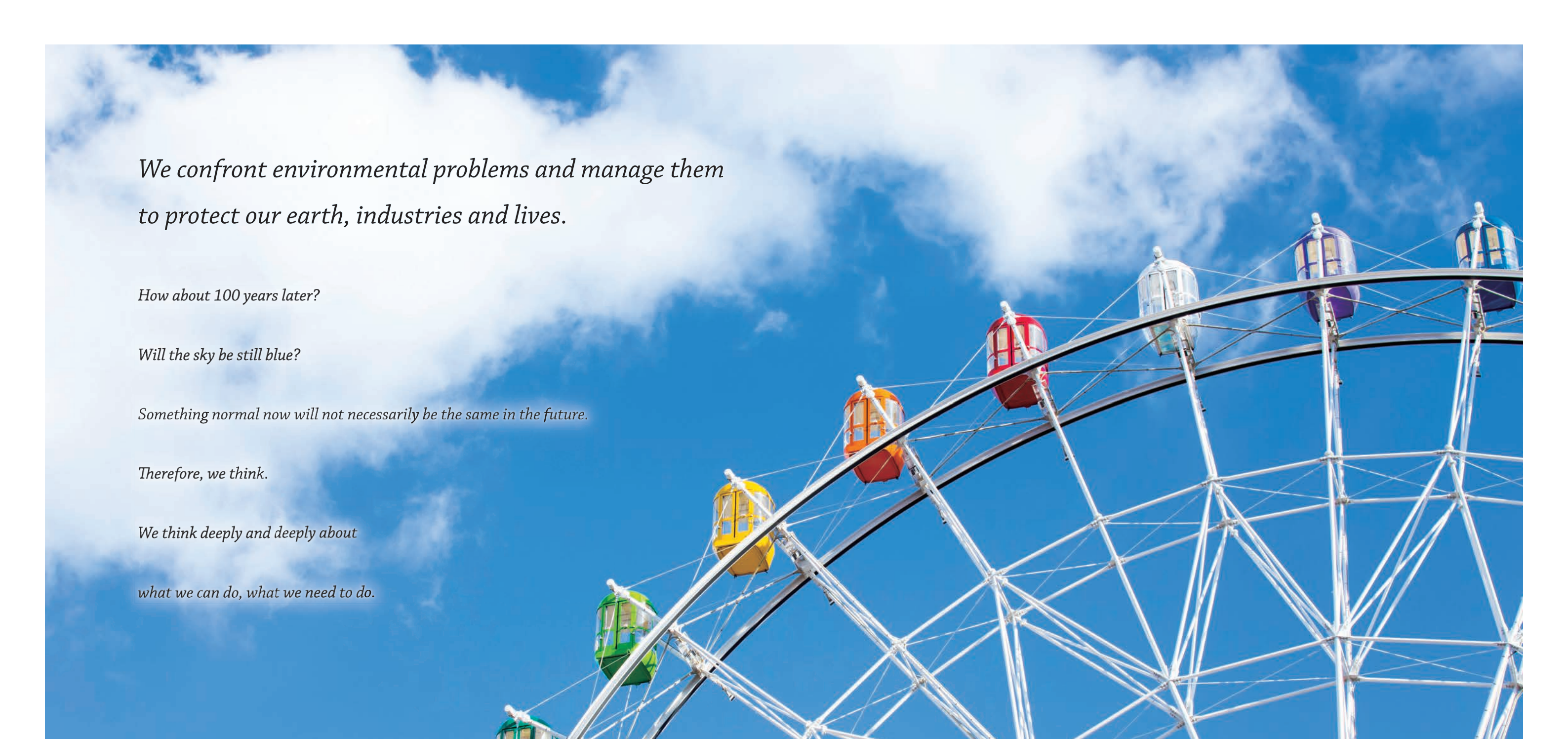
Kayama Industrial Wastes Disposal Co. Inc

<http://www.kayama-k.co.jp>

Mail. info@kayama-k.co.jp

Think deeply.





*We confront environmental problems and manage them
to protect our earth, industries and lives.*

How about 100 years later?

Will the sky be still blue?

Something normal now will not necessarily be the same in the future.

Therefore, we think.

We think deeply and deeply about

what we can do, what we need to do.

Our motto

T H I N K P R O P E R

Our Special Know-how

1. Business Establishment

Business Establishment Consulting and others

- I. Planning know-how of Business plan (demand estimation numerical plan -> partial changed to software)
- II. Design supervision know-how of facilities such as factory from the operational point of view (construction management)
- III. Planning know-how of operations management plan (organizational structure, business design and others)
- IV. Quality check of existing disposal facilities and Diagnosis know-how (presentation of Improvement plan of existing facilities)
- V. Negotiation know-how with various government offices (in Japan)
- VI. Know-how of neighbor policy (in Japan)
- VII. Others

2. Operation Management

I. Management Know-how

- Interim Disposal Procedure Practice
- Cost Management (human cost, supply cost, maintenance cost, marketing cost and others)
- Move in & out management, operations management
- Price-setting
- Human Resources Management (operations design & education)
- Risk Management (accident, sanitation, environment, neighbor policy etc.)
- Quality management
- System management, information management
- Others (general affairs, accounting, finance etc.)

II. Operations know-how in factory (Receiving Work, Selection, Incineration, Crushing, meltdown etc.)

- Efficient disposal (machine operation, handling procedures, formation)
- Facilities, machine maintenance etc.
- Sorting and ordering
- Improvement activities
- Neighbor policy
- Others

III. Transportation Know-how

- Management of allocation of vehicles and transporting
- Collection business
- Transportation business, vehicle handling
- Vehicles management and maintenance
- Others

IV. Know-how to attract customers (marketing and sales)

- Sales activities
- System to attract customers (web, contact function, sales tools etc.)
 - Will be developed from now on
- Services planning
- Others

3. Other items

- The selection and application of external player
- The examination of room for application of additional external functions
- The examination of business model of the operations assigned (Setting of skills and scope)
- The acquisition of advisable authentication and evaluation system
- Others

We create the future together for a sustainable world beyond national borders



Kayama Industrial Wastes Disposal Co.,Ltd. offers management guidance for waste collection, transportation, disposal and recycling businesses. Here in Japan's plants, people have been working on waste disposal for half a century and have been intent on improving the recycle technology each day.

Our customers come from all levels of business, such as local governments, building companies, manufacturers, hospitals and service businesses. We treat (incineration, sorting, crushing and molding) and recycle wastes from companies in many different fields and provide them as resources.

We solve our customers' environmental problems by using our time-tested waste disposal technology.

Only using the methods promoted by some 'experts' isn't enough to solve waste related environmental problems. For example, regarding incineration, if you think that wastes can be burnt simply by incinerating them, you are very wrong! A great deal of technical know-how is needed, such as waste combinations, calorie calculations, maintenance of incinerators, exhaust gas treatment plants etc.

We are building a system which offers the best solutions possible for our customers by putting our new ideas based on accumulated knowledge, technology and experience together.

Validation of Laos medical waste disposal system introduction

Our proposal "Feasibility survey for medical waste disposal and management improvement in Vientiane, Laos" was adopted by Japan International Cooperation Agency(JICA)'s "Overall Support for Japanese SMEs Overseas Business Development -Project Feasibility Survey-"

Vientiane is aiming to become a "environmentally sustainable city" and improving its system to enact the "waste disposal bylaw". However, waste such as medical waste is not separated appropriately and landfilled untreated.

The survey was conducted to improve this situation and JICA adopted the hazardous waste incineration and drying facility from our "integrated waste disposal system" to contribute to safe and effective disposal of medical waste.

Currently, we are conducting a survey to grasp how medical waste is separated in medical institutions, how it is collected and hauled, if there are any problems in the process and how it is actually treated or disposed of at the landfill. This is to prepare facility and equipment to appropriately incinerate and dry medical waste in Vientiane and transfer technology of how to operate the waste disposal system.

Also, we have found out through our survey that there are many companies who keep their business scale small in order to control their waste generation because they have no waste disposal companies to entrust. Therefore, we believe the establishment of appropriate waste disposal system is essential to further development of Laos.

We consider that a tangible element such as waste disposal facility is as important as an intangible element such as environmental education that prompts each and every person to gain knowledge of appropriate waste disposal method and pay attention to environmental preservation.

We are working on commercialization of waste disposal in Laos as a first step to create rich environmental future, to protect global environment together and to develop together, beyond national borders.



We held an industrial and medical waste management seminar in Laos.

From industrial waste intermediate disposer to environmental solutions corporation

We have been devoting ourselves to perform proper waste disposal and recycling since foundation in 1952.

We strive each day to improve our disposal technology and to achieve 100% recycling rate in order to protect our environment and return resources to nature. And this enables to make proposals appropriate to customers' needs.

Approximately 400 million tons of industrial waste is generated each year in Japan.

How is this enormous amount of waste disposed of?

As even developed countries with vast land have been changing their views from landfill to recycling, we need to think deeply about how we recycle world's limited resources and continue to create sustainable societies.

What can we do to pass on this beautiful earth to the next generation?

We have faced this issue and thought deeply about it. Then we have come up with a number of "environmental solutions" projects.

Without being bound by waste disposal business, we have recently launched various projects for the purpose of environmental preservation such as long-life LED illuminations that controls waste generation, 100% natural energy electric power service for the creation of recycling-oriented society and so on. We hope to draw many people's attention to the environment through these projects.

We also grow farm crops (KAYAMA farm) and keep honeybees that are environmental indicator species in order to prove that our businesses do not have any negative effects on the environment, and to eliminate local people's concerns.

We invite local people to the harvesting festival so that they are able to interact with nature and lives.

Kayama Kogyo Co.,Ltd.
Junichiro Kayama, President



This gives them an opportunity to think about the environment and is also a place for dietary education for children.

We are putting emphasis on this project because this gives us a chance to disclose our information to and receive feedbacks directly from people in order to have them understand our businesses.

We aim to become an "environmental solutions corporation" that fulfills its Corporate Social Responsibility, raises security and safety as the first priority and is loved and needed by its local community.

We consider that eliminating "in" and "dis" from customers' "inconvenience" and "dissatisfaction" is our biggest mission. If the waste disposal business is a tree trunk, environmental solutions projects that create rich environment are branches and leaves.

Thickening and strengthening the trunk make the branches and leaves bigger.

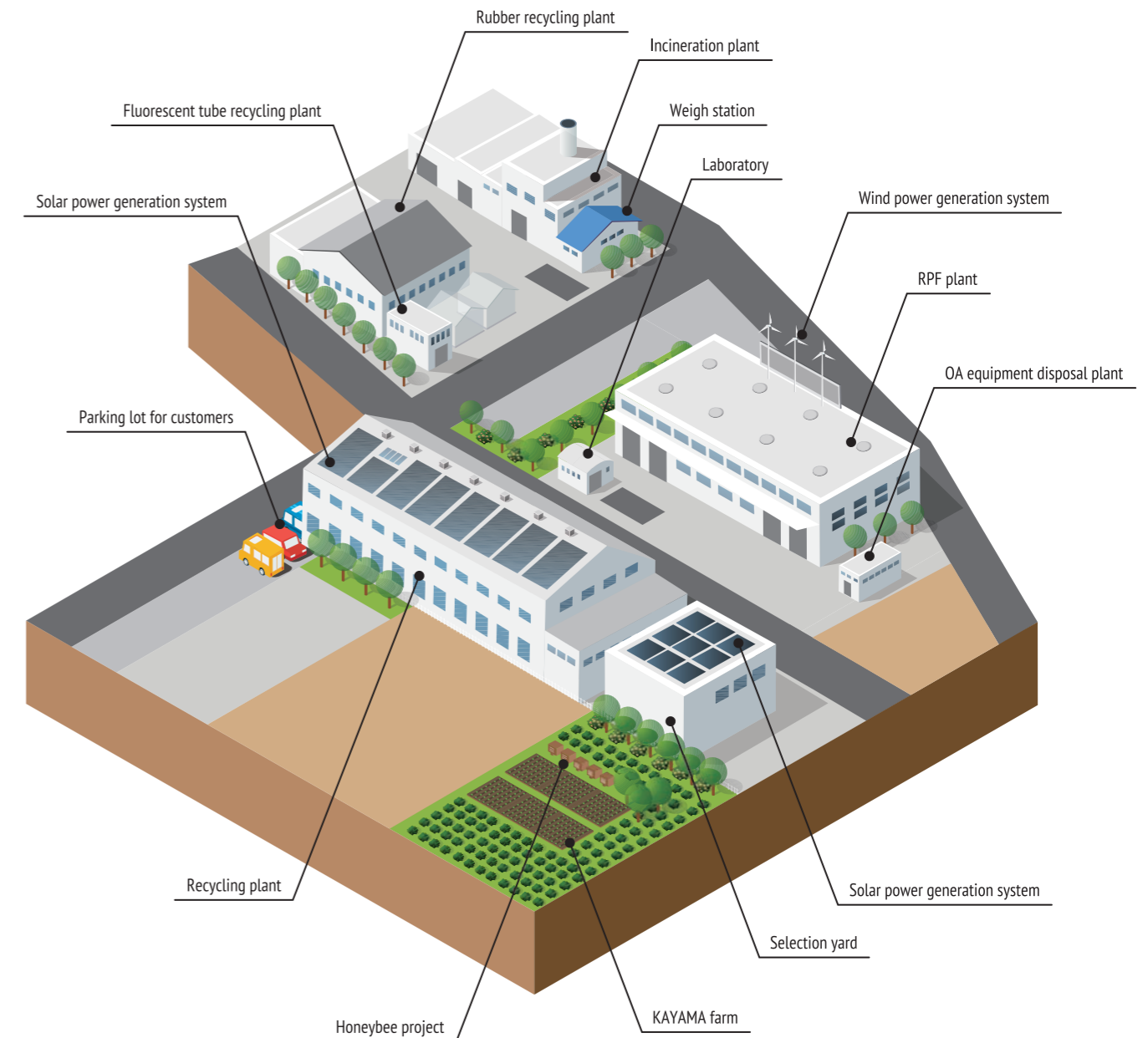
We grow our business as we grow a tree big with the spirit of "very persistent waste disposal company" which has been our creed since foundation.

With all our employees full of fruit of dreams and hope, we will grow a tree that continues to grow, together with you.

Toyokawa recycling plant

This plant disposes of waste from various sources such as waste plastic and wood chips from factories and construction sites, business related general waste from offices and stores, medical waste from hospitals and so on.

- You can see how we dispose of waste live through WEB cameras.
- All our waste collection vehicles are equipped with GPS to ensure proper operation.

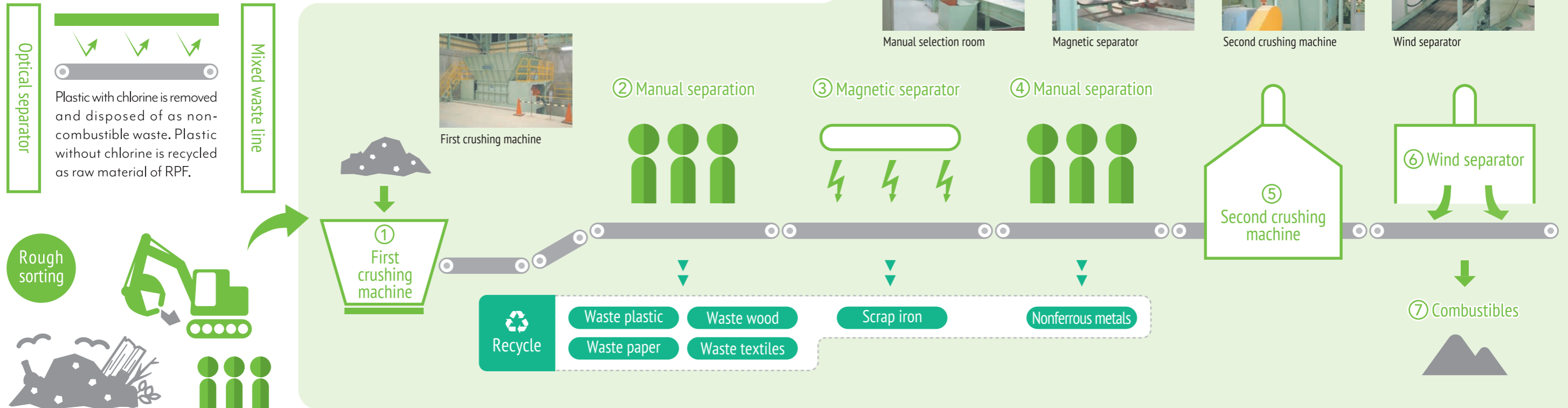


Commitments to security and safety

- We give top priority to environmental conservation in any operations.
- We cooperate and harmonize with people in our local community and perform waste disposal operations.
- We disclose all the information of our disposal facilities. Also, plant tours are available at any time.

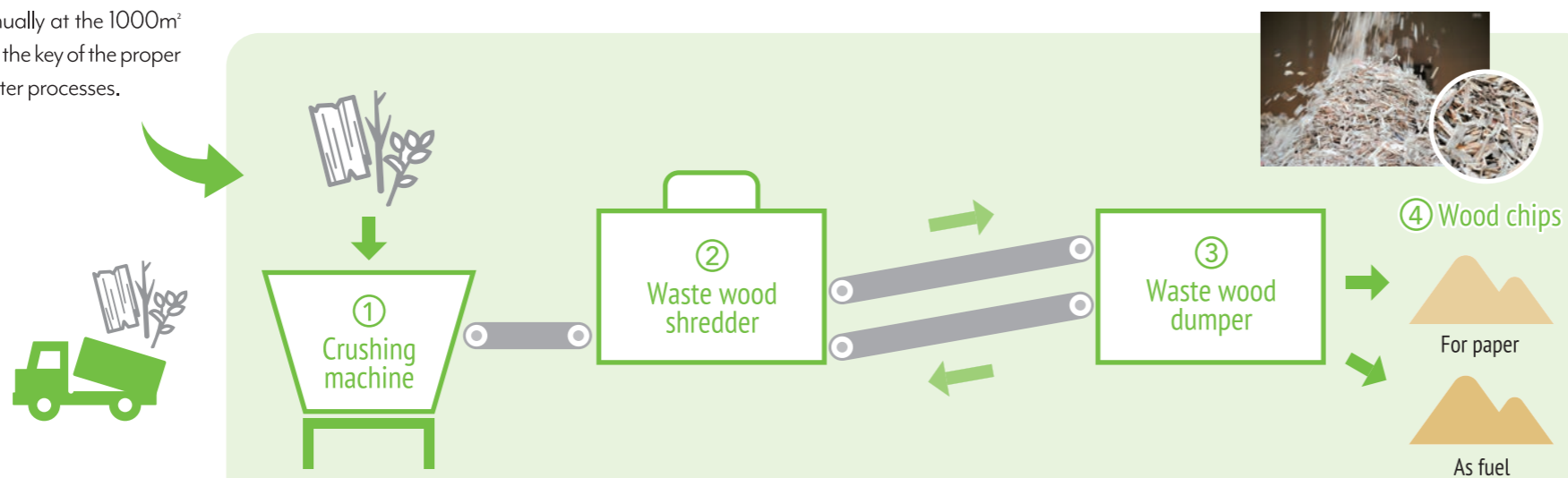
Crushing & Selection facility

Collected mixed waste is roughly sorted at the selection yard. Waste is thoroughly separated from the first crushing machine to the wind separator and valuable resources are recycled.



Waste is roughly sorted manually at the 1000m² selection yard. This process is the key of the proper disposal and affects all the later processes.

Waste wood line



Collection of general waste from business

“General waste from business activities” is general waste generated by industrial activities such as “waste paper, waste wood and waste textiles etc.” We provide regularly-scheduled collection services for such waste.



Mixed waste line

- 1 The first crushing machine crushes waste into certain-sized pieces and prepares for the following manually sorting process.
- 2 Mixed waste is manually separated and sorted out by type, then collected to the pit to recycle.
- 3 The magnetic separator collects metals to recycle.
- 4 Waste is manually separated again and non-ferrous metals are removed.
- 5 The second crushing machine crushes waste finer for more efficient thermal recycle when incinerating.
- 6 The wind separator separates heavy debris etc. using specific gravity.
- 7 Leftover waste is incinerated as combustibles.

Waste wood line

- 1 The first crushing machine crushes waste wood into certain-sized pieces.
- 2 The waste wood shredder sorts waste by size and shreds it.
- 3 Properly sized waste wood by screen is sent out to the outside pit. Leftover is sent back to the shredder.
- 4 Wood chips are recycled for paper or as fuel depending on the quality of material.

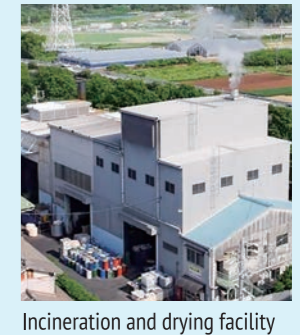
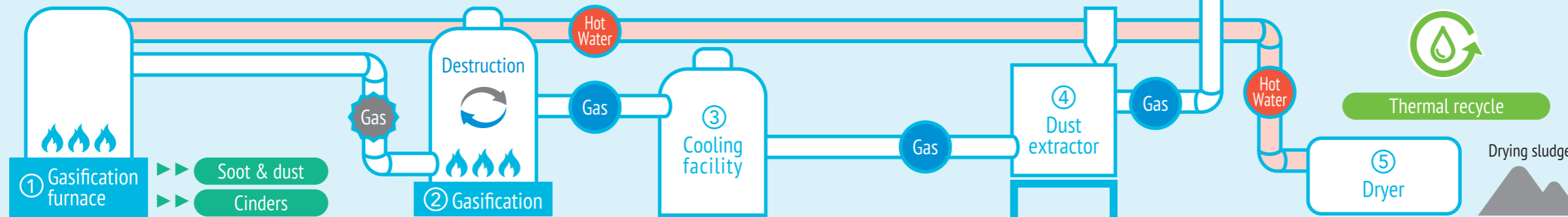
Recycling rate
100%

Incineration and drying facility

Crushed and separated combustible waste and specially-controlled industrial waste (injection needles, gauze etc.) discarded by medical facilities (hospitals, clinics etc.) are incinerated in this facility. Hot water generated when incinerating is utilized to dry construction sludge (thermal recycle).

Clean steam →

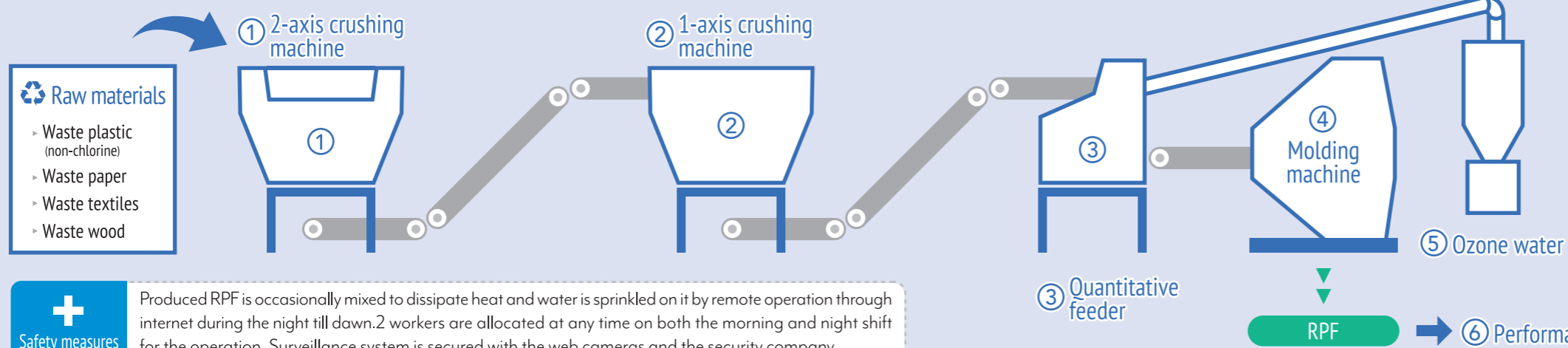
We are licensed as a "class 1 fluorocarbon recovery and destruction operator". We collect industrial air-conditioners, refrigerators and freezers (including vending machines) filled with fluorocarbons as refrigerants in order to destruct fluorocarbons.



Solid fuel RPF facility

RPF is solid fuel alternative to fossil fuel. Waste paper, waste plastic etc. are appropriately sorted and crushed, volume of each waste is adjusted to make the calorific value of RPF equal to the one of coal and then molded

for production. Inspection is performed to make sure if any hazardous substances are contained in RPF prior to delivery.



Safety measures
Produced RPF is occasionally mixed to dissipate heat and water is sprinkled on it by remote operation through internet during the night till dawn. 2 workers are allocated at any time on both the morning and night shift for the operation. Surveillance system is secured with the web cameras and the security company.

Incineration and drying facility

- 1 Combustible waste, medical waste, recovered fluorocarbons etc. are incinerated.
- 2 Chlorofluorocarbon gas is sent into the incinerator to destruct fluorocarbons when incinerating.
- 3 Temperature is regulated by the cooling facility.
- 4 Hazardous substances are removed by the dust extractor. Heavy metals are recovered from soot and dust. Part of cinders are recycled as materials for roadbed stabilizers and concrete blocks. Leftover is landfilled.
- 5 Heated water when incinerating is used to dry sludge (thermal recycle).

Solid fuel RPF facility

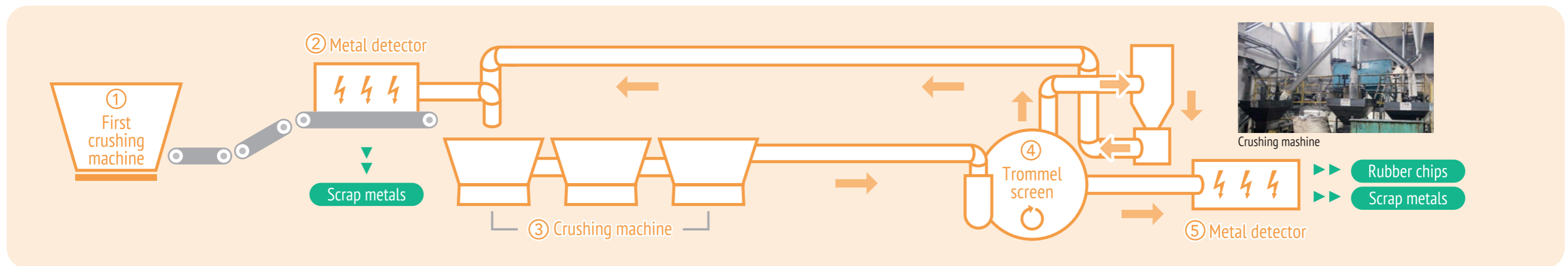
- 1 The 2-axis crushing machine crushes big waste such as tatami mats small.
- 2 The 1-axis crushing machine crushes the raw materials finer.
- 3 The quantitative feeder feeds out the right amount of waste.
- 4 The molding machine produces RPF by compressing and reducing the volume of waste.
- 5 Odor generated during production is removed by ozone water.
- 6 Produced RPF is carried out to the outside pit and its performance is inspected.



Rubber recycling plant

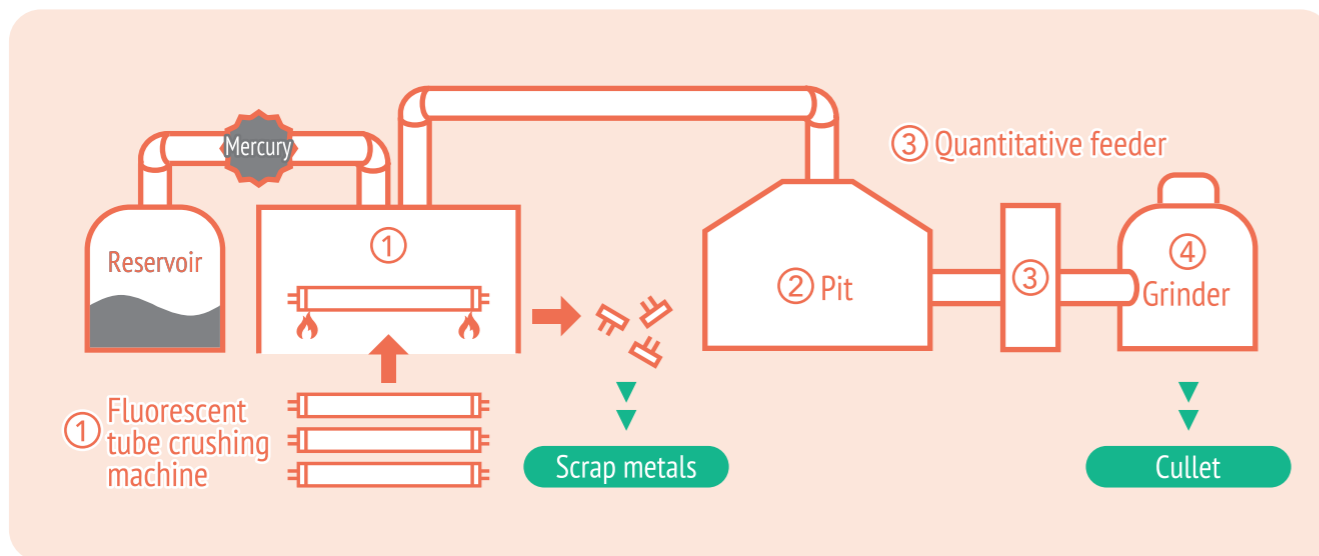
We recycle rubber waste except tires. Waste rubber is finely crushed and processed to rubber chips which can be reused for artificial turf.

Component analysis of raw materials, pretest for crushing and foreign body removal by the metal detector are thoroughly performed. Particle size is classified according to the product specification of each customer prior to delivery.



Fluorescent light recycling plant

Fluorescent tubes are crushed and metal caps are separated from glass. Mercury contained in fluorescent coating is detoxified. Crushed glass is recycled as raw material of glass wool and metal caps are recycled as scrap metals. The crushing capacity for 40 watt straight tubes is 900 tubes per hour and they are recycled safely and quickly.



OA equipment disposal plant

We manually disassemble OA equipment filled with customers' valuable data and recyclable resources and physically destroy magnetic media and hard disks to erase data completely.



Demolition and waste disposal integrated system

We provide an integrated service from demolition to waste disposal of various types of buildings such as wood-frame, steel-frame and reinforced concrete buildings.

Waste generated from demolition work is brought into our plant and recycled as much as possible. We treat asbestos appropriately and pay careful attention to both safety and environmental aspects.



Rubber recycling plant

- 1 Rubber is crushed finely.
- 2 Metals are removed.
- 3 An appropriate crushing machine is used according to the type of waste material.
- 4 Rubber chips are separated according to the particle size by the Trommel screen. Big particles are sent back to the crushing machine again.
- 5 Rubber chips go through the metal detector once again to remove metals.



Products from rubber chips

Fluorescent light recycling plant

- 1 Glass is separated from metal caps and crushed. Mercury is temporarily stored and sent to a subcontractor to detoxify and incinerate.
- 2 Crushed glass is stored in the pit.
- 3 Glass stored in the pit is appropriately sent to the grinder.
- 4 Glass is ground to finer pieces and corners are rounded off to be safe even to hold them in hand.



Fluorescent tube crushing machine



Fluorescent light recycling plant

Recycling rate
99.9%

Protect the environment and
return resources to nature
Aiming at **100%** recycling rate

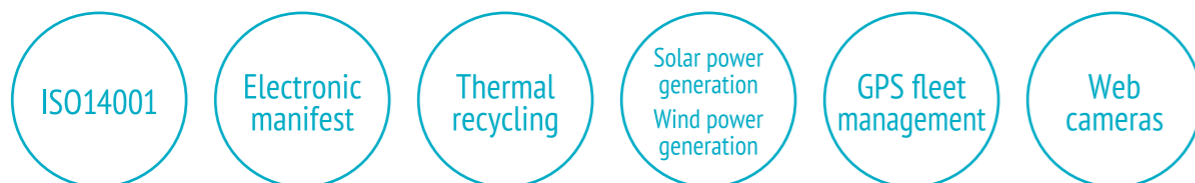


We are certified as an “excellent industrial waste disposer”

Excellent industrial waste disposers are required to conform to stricter standards such as compliance, transparency, environment-friendliness, electronic manifest, financial soundness and so on. Therefore, this certification shows that our business structure is safe and secure.



Approach to proper disposal that is low-impact on the environment



KAYAMA HONEY

Pure honey made in Toyokawa

We keep honeybees that are environmental indicator species in the KAYAMA farm built next to our Toyokawa recycling plant.

We have tested our collected honey if any toxic substances are contained in and proven that our business does not have any negative effects on the environment.

Honeybees are said to be involved in nearly 60 percent of pollination and fruition of crops such as fruits and vegetables.

However, it is reported that a large amount of honeybees have disappeared from the world in recent years.

We thought that raising honeybees could lead to environmental preservation and contribution to our local community and this is how Kayama Kogyo honeybee project has started.

The honey collected through this project is mildly blended with honey collected in Tokai area and sold on our website. (<http://www.ecolcle.com>)

KOPI LUWAK / CIVET COFFEE

Preserve tradition and bring you the best quality

Our KOPI LUWAK / CIVET COFFEE is made from coffee beans eaten by wild civet cats that are carefully collected by farmers, well washed and processed.

Because this is the coffee brought from civet cats living in nature, each civet cat gives you different flavor depending on the degree of fermentation and what else were eaten with coffee beans.

Therefore, it is praised as once-in-a-lifetime flavor and considered as a lucky charm due to its rarity.

However, because of the rarity, dishonest dealers have appeared who keep civet cats and make them eat coffee beans to collect them and this deprives people of traditional method and quality of coffee and legitimate sales opportunities.

We sell our KOPI LUWAK / CIVET COFFEE to protect farmers' and customers' interests.

Part of the sales are donated to local farmers and orphanages.

Company History

- 1951 ● Isao Kayama founded the company after retiring from the police.
- 1961 ● Kayama Kogyo Co.,Ltd was established.
- 1978 ● Atsuhiko Kayama became the president.
- 1983 ● Selection & crushing plant was completed.
- 1984 ● Landfill permits were obtained.
(7 landfills in Aichi)
- 1990 ● Incineration plant was completed.
- 1995 ● Drying permit was obtained.
- 2000 ● Fluorescent light disposal plant was completed.
- 2002 ● Recycling plant was completed.
- 2004 ● Dismantling business was newly started.
- 2006 ● RPF plant was completed.
- 2007 ● Wind power generation system was installed.
- 2008 ● Digital tachograph / WEB camera / vehicle GPS systems were installed.
- 2010 ● Junichiro Kayama became the president.
Atsuhiko Kayama became the chairman.
Fluorocarbons destruction business permit was obtained.
- 2012 ● Rubber recycling business was started.
[material & thermal]
- 2013 ● Solar power generation system was installed.
- 2014 ● Recycling plant east yard was completed.
Solar power generation system was installed.
Honeybee project was started.
- 2015 ● Obu office was established.
- 2016 ● Optical separator was installed.

Basic Principles

Kayama Kogyo Co.,Ltd. recognizes environmental preservation for the next generation as the greatest responsibility, strives to recycle waste in every aspect of business activities and to research and develop environmentally-friendly disposal technologies and contributes to the local communities. We also strive to ensure health and safety through safety and health-conscious activities with the cooperation of all the employees to create pleasant work environment.



ISO14001
environmental management system



OHSAS18001
occupational safety and health management system

Company Profile

Company Name	Kayama Kogyo Co.,Ltd.								
President	Junichiro Kayama								
Established in	November 11, 1961								
Head Office Address	15-5 Minamiichiban-cho Atsuta-ku Nagoya Aichi 456-0055 Japan								
Capital	50 million yen								
Employees	96 (including 13 fixed-term employee / excluding part-time employees and executives)								
Type of business	<ul style="list-style-type: none"> ・Industrial waste collection and hauling ・Industrial waste disposal ・Specially-controlled industrial waste collection and hauling ・Specially-controlled industrial waste disposal ・Municipal waste collection, hauling and disposal ・Dismantling ・Environmental equipment sales (LED, emergency supplies) ・Specially-controlled industrial waste disposal ・Beekeeping (selling honey) 								
Offices	<table border="0"> <tr> <td>Toyokawa office</td> <td>2-1 Minamichigiri Toyokawa Aichi</td> </tr> <tr> <td>Toyohashi office</td> <td>1-15-10 Minamiushikawa Toyohashi Aichi</td> </tr> <tr> <td>Obu office</td> <td>244 Toyama Kitasakimachi Obu Aichi</td> </tr> <tr> <td>Gifu office</td> <td>Room 1, 7-9 Yanagasedori Gifu Gifu</td> </tr> </table>	Toyokawa office	2-1 Minamichigiri Toyokawa Aichi	Toyohashi office	1-15-10 Minamiushikawa Toyohashi Aichi	Obu office	244 Toyama Kitasakimachi Obu Aichi	Gifu office	Room 1, 7-9 Yanagasedori Gifu Gifu
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Wind power generation system



Solar power generation system



WEB camera

We recycle as much as we can.

