

- 1. Project Operator**
Saitama Prefecture
- 2. Objective**
The center runs a landfill operation for municipalities and small and medium-sized businesses based in Saitama Prefecture that have difficulty securing waste disposal sites independently.
- 3. Scale of Operation**
Total area:137.4 ha Landfill area:28.3 ha Total weight of waste:2.71 million tons
- 4. Type of Waste for Landfill**
Waste excluding toxic materials as stipulated below. Certain limitations apply to water content, size and forms of the materials received.
 - (1)General waste (from local municipalities, etc.)
garbage incineration ash, sewage sludge incineration ash, incombustible refuse
 - (2)Industrial waste (from small and medium-sized businesses, recycle promotion businesses, etc.) 8 items
cinder, sludge from water purification plants, waste plastics, rubber scraps, metal scraps, glass/concrete/ceramic scraps, slag, rubble
 - (3)Construction waste soil
- 5. Method of Landfill and Safety Measures**
The center is a controlled-type landfill site, using double-layered seepage control sheets (on and after 7-3 site), and adopting the sandwich landfill method. All possible measures are taken to ensure safe administration of the facility including regular facility and environmental inspections. Weekly monitoring activities are also conducted by local residents.
- 6. Duration of Landfill**
From February 1, 1989 to March 31, 2031 (as stated in the Pollution Prevention Agreement concluded with the local community).
- 7. Fees (per ton)**
Incineration ash/Incombustible refuse/Cinder/slag:¥21,600
Waste plastics, glass/concrete/ceramic scrap, rubble:¥20,570

Pollution Prevention (in particulars) Agreement

- * Concluded between town, prefecture, and local residents' association
- * Duration of landfill operation
- * Pollution prevention (standards, various measurements)
- * Maintenance and management of site
- * Method of waste haulage
- * Monitoring organization

The SAI-no-KUNI Resource Recycling Factory is Japan's pioneer model facility of resource recycling. With public involvement, the facility supports the creation of a resource recycling society and helps aim for sustainable development.

No.	Company Name	Site Area	Material	Main Processes	Major Products	Daily Volume	Recycle Rate
(PFI Company)							
1	ORIX Resource Recycling Services Corporation	5.1ha	General Waste	Thermal Recycling	Power generation, Metals	450tons	100%
(Tenant Company)							
2	ECO KEIKAKU CO., LTD	3.0ha	General Waste	Thermal Recycling, Dehydration, Solid Fuel	RPF, Fertilizer	594tons	90%
3	Environment Service CO., LTD	0.4ha	Plastic	Solid Fuel	RPF	57tons	100%
4	Um-Welt Japan Co., LTD	1.1ha	Fluorescent Tube	Mercury Recovery	Glass, Metals	11tons	100%
5	I' II Clean-Tech	1.2ha	Food Scraps	Compost	Compost	108tons	100%
6	Tsuneishi kamtecs CO., LTD saitama Factory	1.6ha	Incinerated Ash	Calcinations	Artificial Sand	288tons	90%
7	YORII COMPOST CORPORATIN	1.1ha	Sewage Sludge	Compost	Organic Fertilizer	200tons	100%
						1,708tons	95%

PFI Business Project by ORIX Resource Recycling Services Corporation

	Purchase-of-Service PFI (BTO)	Independent PFI (BOO)
Operated Facility	Core Facilities, Park Grounds, Research Facility	Thermal Recycle Facility
Method of Business Operation	Upon completion of the facility, the PFI operator will transfer the rights to the prefecture. Costs of design and construction as well as operation and management of the facility will be covered by the commission fees paid to the PFI operator from the prefecture.	The facility will be built and operated solely by the PFI operator. Business earnings will belong to the PFI operator. With the termination of business the land will be returned to the prefecture after the facility is dismantled and cleared.
Land Usage	Used by Saitama Prefecture	Lease of prefectural land (term leasehold for business use)
Contract Period	25 years	20 years
Guarantee	Total amount to be paid by Saitama Prefecture (fixed) 4.78 billion yen	No payment guarantee by the prefecture. No guarantee of waste supply.

Reference: Saitama Prefecture's Revenue from Leased Land — Total Amount: 6.2 billion yen (25 years)

○ Innovations and Characteristics

- (1)Comprehensive recycling facility located in an inland prefecture (a base for the environmental industry as well as research and development)
- (2)Use of land of final waste disposal landfill sites in project
- (3)Thorough information disclosure policy and resident monitoring system (Saitama Method)
- (4)Japan's first dioxin density regulation of 0.01 nanograms (industrial waste incineration)
- (5)Full-scale waste power generation providing 8,000KW, or 1.5 times the electricity consumption of Yorii Town.
- (6)Reuse of rainwater and a closed system for factory effluent (complete water recycling)
- (7)80% ratio of green space in environment-friendly industrial park
- (8)Restrictions on receivable waste items for incineration and final disposal
- (9)Expanding opportunities for the private sector by utilizing independent PFI

○ Project Outline By Year

- 2001 Basic concept / recruitment outline / determining business entities
- 2002 Environmental impact assessment / facility design / signing of contract
- 2003 Finalization of urban planning / start of construction of core facilities and park
- 2004 Completion of core facilities and park / start of construction of buildings
- 2005 Completion of recycling factory
- 2006 Completion and opening of thermal recycling factory

Resource Recycling Factory Management Agreement

- * Concluded between town, prefecture, business entities and local residents' association
- * Pollution prevention (standards, measurements)
- * Information disclosure
- * Monitoring organization
- * Revitalization of local economy

Records of Fiscal 2016

- 1. Annual volume of landfill** 32,900 tons
(Breakdown) General waste 21,113 tons
Industrial waste 11,788 tons
- 2. Aggregate volume of landfill from start-up** 1,672,783 tons
(61.7% of designed capacity)
- 3. Average daily intake** 136 tons
- 4. Duration of operation** 242 days
- 5. Number of loads** 4,568 loads
Daily average 19 loads
Average weight per load 7.2 tons
- 6. Number of users**
General Waste 17 municipalities, 9 co-operative unions
Industrial Waste 5 business entities
- 7. Monitoring** 48 Days (159 persons)
- 8. Inspection visitors** 2,057 persons

History

- Oct. 1973 Decision to secure a final disposal site under the Basic Plan for Waste Processing
- Oct. 1975 Selection of Yorii Town for project site
- Mar. 1982 Start of geological survey of project site
- Mar. 1984 Formulation of base plan for land reclamation at Mikayama for industrial waste
- May 1985 Formulation of Pollution Prevention Agreement with Yorii Town and Ogawa Town (July)
- Dec. 1985 Start of construction
- Jan. 1989 Formulation of Pollution Prevention Agreement (detailed) with Yorii Town and Ogawa Town (March)
- Feb. 1989 Start of waste receiving services
- Jul. 1995 Completion of land acquisition
- May 1996 Completion of emergency detention pond
- Jan. 2001 New revised Pollution Prevention Agreement with detailed specifications concluded with Yorii Town and Ogawa Town (February)
- Nov. 2002 Conclusion of agreement on operation rules for SAI-no-KUNI Resource Recycling Factory
- Oct. 2003 Groundbreaking ceremony for SAI-no-KUNI Resource Recycling Factory
- Oct. 2004 Opening of Mikayama Green Park
- Jan. 2005 Successive completion of construction of facilities based on leased land within the SAI-no-KUNI Resource Recycling Factory site
- Jun. 2006 Grand opening of SAI-no-KUNI Resource Recycling Factory
- Jun. 2013 Completion of Mikayama Mega Solar Power Plant
- Sept. 2013 Successive completion of Phase 2 of SAI-no-KUNI Resource Recycling Factory
- Nov. 2015 New Formulation of Pollution Prevention Agreement with Yorii Town and Ogawa Town (Dec.)