

**ShinMaywa**

# Municipal Refuse Transfer Station

Nongkaem Refuse Transfer Station, Bangkok



ShinMaywa Industries, Ltd.

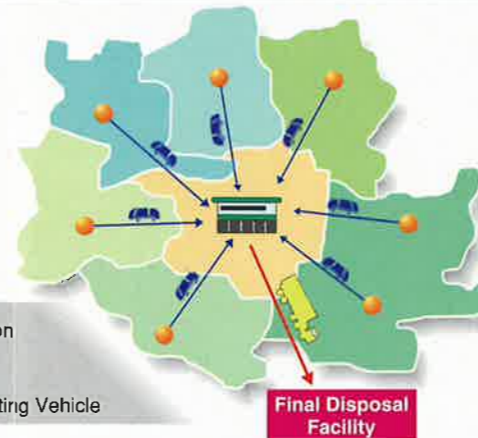


# Separation of Refuse Collection and Transportaion has produced an Epoch-making System.

The principal behind a refuse transfer station is to provide a central collection point for municipal refuse which are efficiently loaded onto large specialized refuse transfer containers for delivery to disposal facilities such as a landfill or incineration plant. And also the transfer station contribute to maximize the operational efficiency of the refuse collection vehicles. Consequently, frequency of transportation to and from the disposal facility is much reduced, which offering an effective solution to the present-day energy issues and environmental protection.

The transfer station layout must be designed to enable efficient collection of the refuse, short term storage and efficient and reliable of the transfer vehicles with good traffic flow for incoming and outgoing vehicular traffic. Refuse collection vehicles discharge the load into the hopper. Then, the feeder pushes the refuse into compactor filling chamber.

The compactor loads the refuse into large-sized transfer container.



## Features of ShinMaywa Transfer Station System

### Clean and hygienic, and free from scatter of refuse

Refuse dumped in the hopper is automatically and hygienically loaded into an enclosed a large-sized container with no emission of odor or scatter of refuse. And also employing the Post Loaded type compactor system, leachate generation in the transfer station can be minimized.

### Highly efficient transportation

By the use of refuse compactor, a large-sized container carries much refuse of many small-sized refuse collecting vehicles at once.

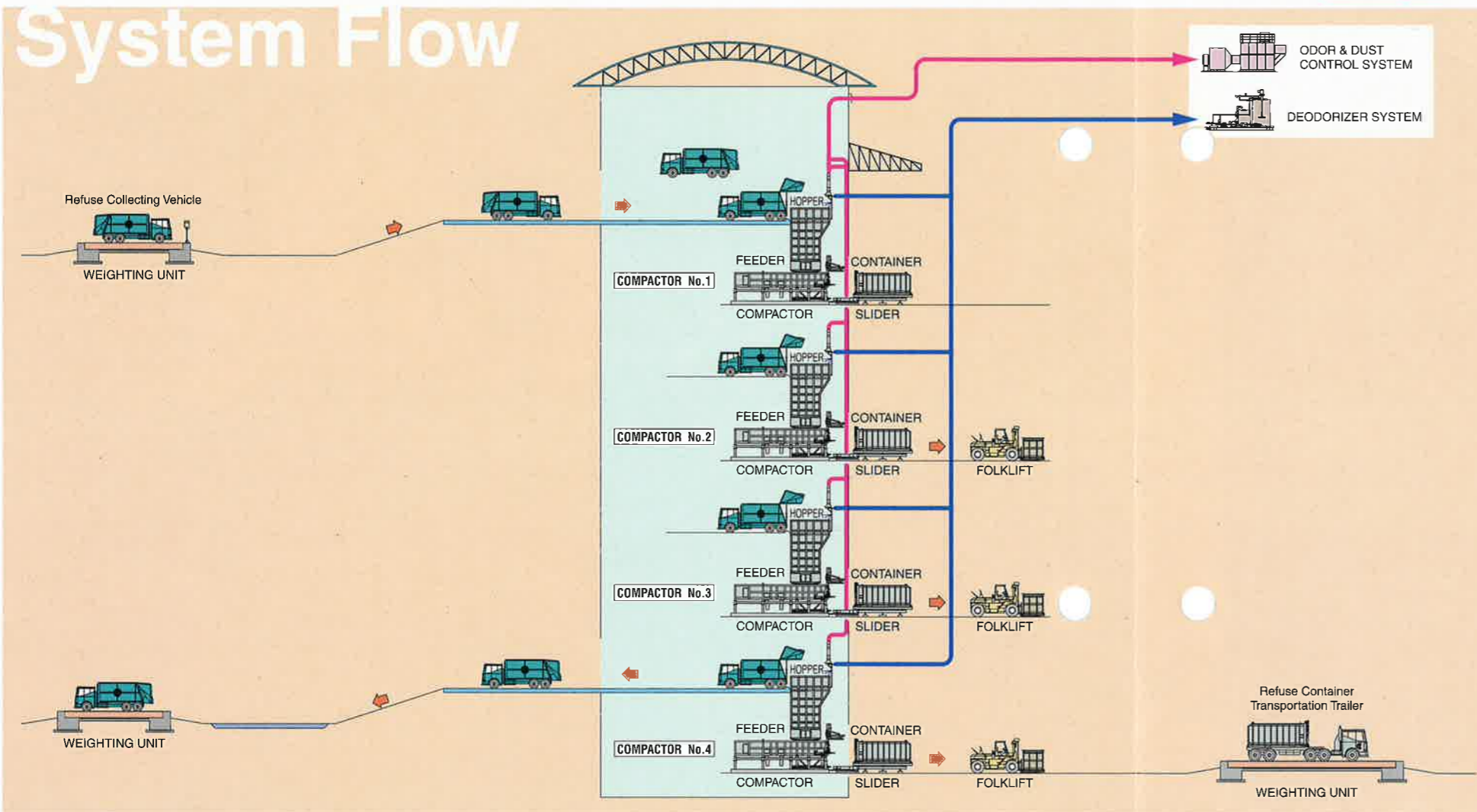
### Thoroughgoing environmental safeguards

Powerful dust collector and deodorizer are equipped in the transfer station system to completely protect the surrounding environment.

### Automatic operation

All of the operation are fully automatic that includes container connection, shifting container tail gate to the compactor ram, refuse compaction, and container disconnection.

## System Flow



## Compaction Facility

### <System Interlude>

- Hi-rate refuse transferring
- Hygienic system
- Refuse transfer by container
- Keep clean in Environment
- Automatic operation system



Un-Loading Area



Hopper & Ducting



Compactor



Hydraulic Power Unit

## Control System



Central Control Room



Mimic Board



Touch Screen Panels



Central Control Panels

## Environment Retain Facility



Odor & Dust Control System



Water Treatment Building



Deodorizer



Refuse Water Filter



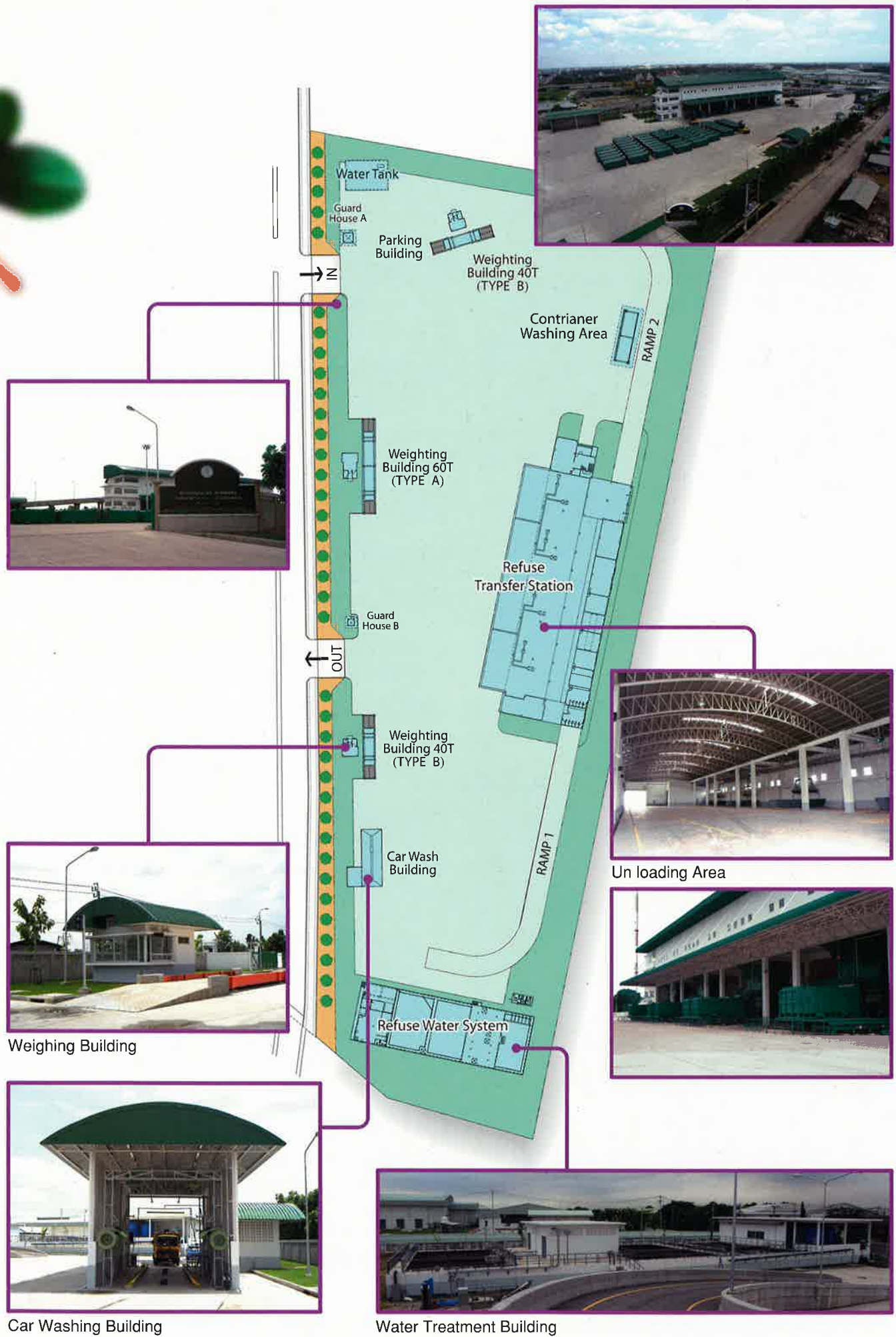
Air-filter duct

Air-curtain





# Site Layout



Weighing Building

Car Washing Building



Un loading Area



Water Treatment Building



## Transpirations Facility

### Features and mechanism of transfer container with double shift type tailgate

Since a tailgate door becomes a compactor's push plate, this type of container simplifies the handling and prevents refuse from scattering.

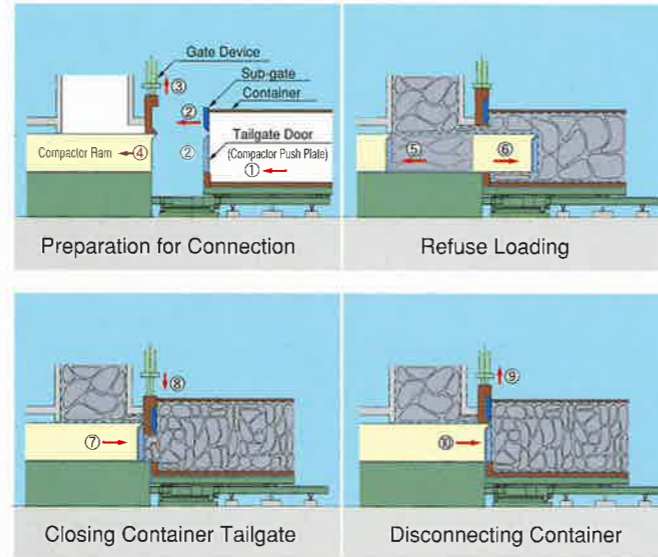
As a sub gate of the container moves up and down synchronizing with the compactors gate equipment, "the throwing opening of a container is enlarged, resulting in improved efficiency in pressing refuse." "Separate operation for each sub gate is made possible when detaching the container." "As the clearance between the push plate and the refuse is narrowed after detaching container, it prevents the refuse from scattering."



Compactor (Front portion)



Tailgate door of the container



## Transportation Facility



Tractor



Semi-Trailer Container



Container



Forklift

## Others Facility



Weighing Building



Car Washing Building

## Outline of Refuse Transfer Station

Capacity	2,000 tons/day
Operation Hours	12 hours/day
Numbers of Compactors	4 lines
Numbers of Forklift	3 units
Environment Facility	Odor & Dust Control System Deodorizer Spray System Air Curtain Refuse Water Treatment System
Site Area	31,299m <sup>2</sup>
Transfer Station Building	2,193m <sup>2</sup>
Construction Period	July 2005 – June 2007



## References of Refuse Transfer Stations (Overseas and Japan)



Xian Refuse Transfer Station (China)



Kuala Lumpur Refuse Transfer Station (Malaysia)



Jakarta Refuse Transfer Station (Indonesia)

Specifications and dimensions are subject to change without notice.

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