

## **Sakai Fishing Port and Sakaiminato Seafood Wholesale Market**

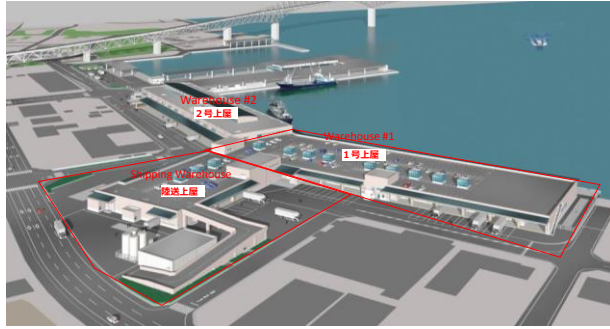
### **Facility Overview**

Sakai Fishing Port located in Sakaiminato, a city on the northern edge of Yumigahama Peninsula which extends into the Sea of Japan from the western part of Tottori Prefecture. On the North side of the fishing port lays the Sakaisuido Straight which connects Nakaumi to the Sea of Japan and borders, on the other side, Shimane Peninsula; on the South side, Mt. Daisen and Miho Bay are visible. Thanks to Shimane Peninsula, which acts as a natural breakwater, Sakai Fishing Port has developed into a thriving fishing port. All year round, a large variety of marine products are being caught, making the port one of the country's big scale fishing ports. In 2018, its 115,000 ton haul made it the fifth in the country, and its landing revenue (¥21.7 billion) placed it sixth in all of Japan. Sakai Fishing Port proudly provides fresh, safe and delicious marine products to consumers.

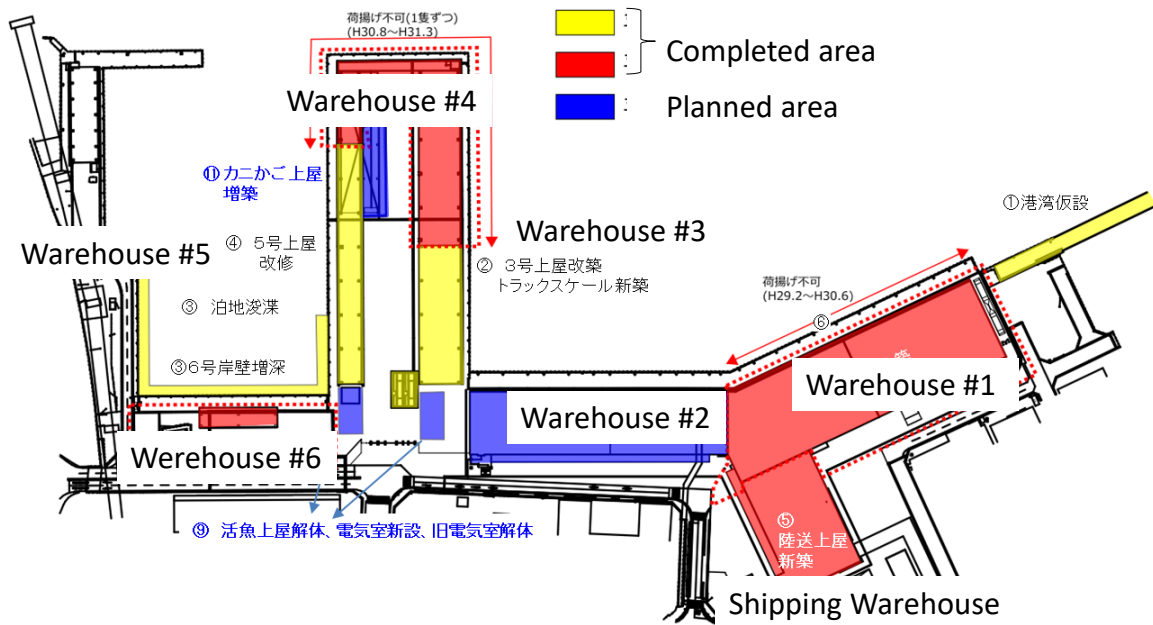
As a fishing port with an advanced hygiene management system, Sakai Fishing Port not only ships domestically but has also entered the international market. Since 2016, it has been expanding and improving its facilities. The new fishing port is projected to be completed by 2023 and to meet the level 3 of hygiene management standards established by the Fisheries Agency. The total site area is 59,350m<sup>2</sup>.



Sakai Fishing Port



## Sakaiminato Seafood Wholesale Market Facility Layout and Construction Status



## ○Main facilities

Facility Name		Main Marine Products	Floor Space	Completion Date
New	Warehouse #1	Snow crab, Bluefin tuna, yellowtail, squid	10,499m <sup>2</sup>	May 2019
	Warehouse #2	Flounder, Japanese sandfish	12,200m <sup>2</sup>	June 2022
	Shipping Warehouse	Horse mackerel, Spanish mackerel, sea bream, flatfish, abalone, turban shell, oysters	4,327m <sup>2</sup>	November 2018
	Warehouse #6	Squid, shirasu	450m <sup>2</sup>	February 2018
	Ice making Building	Ocean water sherbet ice production	404m <sup>2</sup>	May 2019
	Truck scale	Scale to weight horse mackerel, mackerel, sardine, etc. caught with round haul nets	281m <sup>2</sup>	December 2016
Extension	Crab basket Warehouse #5	Red snow crab	1,296m <sup>2</sup>	April 2023
Improvement (Quake proofing, birdproofing)	Warehouse # 3	Round haul net/Purse Seines net	1,886m <sup>2</sup>	December 2016
	Warehouse # 4	Round haul net/Purse Seines net	3,774m <sup>2</sup>	March 2019
	Warehouse # 5	Round haul net/Purse Seines net	1,578m <sup>2</sup>	August 2017

## ○High Level Hygiene Management Facility

The new Sakaiminato Seafood Wholesale Market is an advanced facility that meets the level 3 of hygiene management standards established by the Fisheries Agency. At each stage, from hauling to shipping, the flow of marine products, people, and vehicles is optimized to prevent the risk of food poisoning related to contamination. Regarding the latter, the strategies in place aim to prevent the introduction, propagation, and proliferation of contaminants.

## Fishing Port Hazards

### Bird Feces Contamination



Source of bacteria like salmonella

### Germ Proliferation Through Wooden Crates



E. coli, O157, Norovirus

### Outside Vehicles Intrusion



Exhaust gas pollution  
Foreign body contamination  
Temperature Increase  
Following Catch



Histamine - Enteritis vibrio

## ○High Level Hygiene Management Strategies

- Due to the precise zoning, marine products are processed more rapidly.
- Only allowed personnel can enter the premises.
- Personnel and vehicle entry is controlled.
- Hand washing and boot cleaning are mandatory.
- In order to maintain the freshness of the marine products, clean water, ice, low temperature chambers, and refrigerators can be used throughout the market.
- The facility is completely enclosed, preventing wild life from entering.
- To keep with the improvement of hygiene policies, entrances, exits, and the entire workspace is monitored through CCTV.

● Within the warehouses, only electric forklifts are used to avoid exhaust gas pollution.

**Refrigerator:** Hyperthermic freshness level maintenance phase  
(Temperature kept around 5°C)



**Low Temperature Chamber:** (156m<sup>2</sup>, Temperature kept around 10- 15°C)  
Packing of Oysters, sea urchins, tuna fillets, etc. takes place here.



## ○Cargo Handling Area Zoning

● As shown in the image below, the fish market has been divided in three zones: cargo handling area, shipment preparation area, and shipping area. As a result, marine products can rapidly be processed from unloading to shipping in the enclosed cargo handling area.

**Preventing Cross Contamination of Marine Products**  
Unidirectional movement from unloading to shipping



● The doors of the cargo handling area are generally closed, only opening when necessary. As a result of this, the area is protected from unwanted wild life intrusion and outside dust.

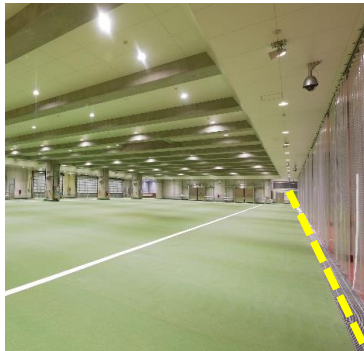
## ○Enclosed Market Area Features

Aside from being fitted with skylights, bird nets, and various others pieces of equipment, the enclosed handling area also boasts electric forklifts to prevent exhaust gas contamination of marine products.

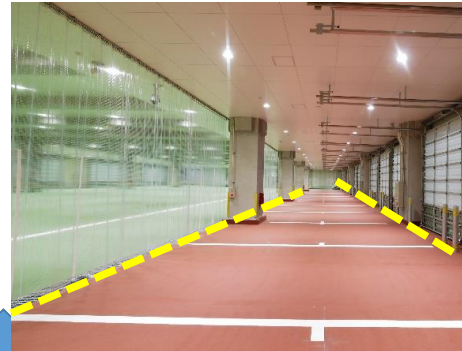
Prevent wild life (feces) and dirt entry



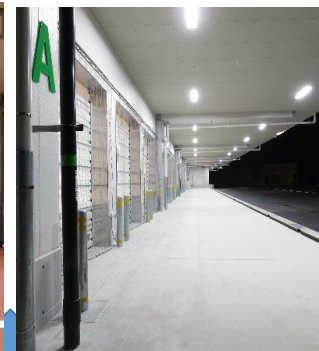
### Cargo Handling (Display • Auction)



### Shipment Preparation (Collection • Sale • Packaging)



### Shipping (Loading Dock)



Areas divided with vinyl curtains and floor coloring

Areas divided with bird nets and shutters

## ○Water Supply System

● Clean seawater sterilized with ultraviolet rays is supplied to be used for different applications such as seawater sherbet ice, tap water, industrial water, and electrolyzed hypochlorous water which has sterilizing properties.

● To ensure the surrounding waters remains clean, waste water from the market area is not discharged directly in the sea but rather sent to a water treatment facility.

## ○Seawater Intake (To be implemented)

A seawater intake system will be implemented to pump seawater from the middle of the Sakaisuido Straight as its cleanliness level is very high. Once filtered, the water will be channeled to installations that make clean seawater or seawater sherbet ice.

### Seawater Sherbet Ice: (More than 50 tons used daily)

Used in a one ton tank to refrigerate fish caught in large amounts

#### Seawater Sherbet Ice:

The minute ice particles completely envelop the fish, thus cooling it more evenly and faster than cracked ice would. It helps maintain freshness for longer.

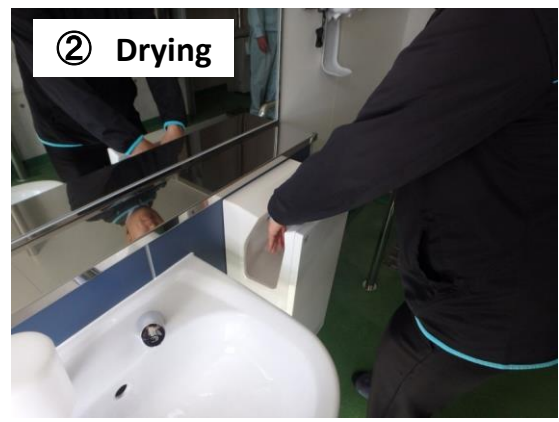


## ○Entry/Exit Management

Before entering the cargo handling area, employees and visitors will be required to wash and sanitize their hands as well as clean their boots. To meet one of the criteria of the level 3 of hygiene management standards, operation and maintenance recording, these actions will be monitored through CCTV.

### Entrance Management

Contamination Prevention→Hat, Hand Washing, Boot Cleaning





### ○Vehicle Entry/Exit Control System (To be implemented)

A dedicated gate will be set up to control access to the pier. To meet one of the criteria of the level 3 of hygiene management standards, operation and maintenance recording, the entry and exit of vehicles will be monitored and recorded through CCTV.

### ○Video Recording Equipment

To meet one of the criteria of the level 3 of hygiene management standards, operation and maintenance recording, cameras were set up to monitor movement at the entrance/exit of and within the market, thus creating a record of the implementation and execution of hygienic measures. In keeping with the goal, it is possible to save the footage of the inside of the building, the pier, and the comings and goings of people and trucks (recording triggered by a motion sensor) for a determined period of time.

### Surveillance Cameras Installed (CCTV)

