

The guideline for Tsunami countermeasure
among relevant organizations
at Keihin port
(Yokohama and Kawasaki district)

1. Purpose

This guideline is issued to promote a prompt action for the protection of human life and property and to ensure the safety of marine traffic by predetermining necessary actions regarding countermeasure of Tsunami at Keihin port (limited to Yokohama and Kawasaki district), especially for ships when Tsunami advisory and above warnings* is announced.

* Tsunami advisory and above warnings;

Major Tsunami Warning, Tsunami Warning and Tsunami Advisory which Japan Meteorological Agency announces when there is a risk of causing Tsunami accompanied by an earthquake based on Meteorological Service Standards. (Act No. 165 of 1952) Article 13, Paragraph 1

2. The acquisition routes of the information regarding Tsunami and Earthquake

It is important for the parties concerned with the operation of ships such as ships, ship mooring facilities and ship agents to confirm the information obtaining means related earthquake and Tsunami and the information transmission route to ships in advance.

3. Precautionary measures

It is necessary for ships and ship mooring facilities to examine following matters in order ships to evacuate safely and properly in Keihin port.

(1)Ships

Ship masters to examine the countermeasure which own ships should do based on the relevant documents and existing manuals related to ship operation with considering Tsunami arrival predicting time into Keihin port and also the height of Tsunami in accordance with the Attachment 1 "The Table of Tsunami Countermeasures for Ships in Port" (the table shall apply hereinafter) which is defined by The Council on the Tsunami Countermeasures for ships in Keihin Port.

(2) Mooring Facilities

The managers of ship mooring facilities to complete the document regarding countermeasures which ship masters should do when Tsunami arrives such as an emergency contact system with relevant ships, the standard of the suspension of loading work and evacuation arrangements of the workers and to inform the contents to the relevant parties based on the relevant documents with considering Tsunami arrival predicting time into Keihin port and their mooring facilities and also the height of Tsunami in accordance with the table. (Attachment 1)

4. Countermeasures at occurrence of Earthquake and/or Tsunami

It is necessary for the parties concerned with the operation of ships such as ships, ship mooring facilities and ship agents to conduct following matters when the earthquake and Tsunami occur in order ships in Keihin port to evacuate safely and properly.

(1) At the occurrence of an earthquake

- To inform the necessary information immediately to relevant ships in accordance with above 2.
- Ships to make effort to continuously collect relevant information.

(2) When the relevant parties obtain information related to Tsunami advisory and/or above warnings.

- To inform the necessary information immediately to relevant ships in accordance with above 2.
- Ship master to take necessary countermeasure in accordance with above 3.(1) when Tsunami advisory and above warnings are announced in the Tokyo bay.

(3) Measures after eliminating of threat of Tsunami

Ship masters and the managers of ship mooring facilities are advised to report immediately to Port Captain the damage incurred by the Tsunami attacks regarding the ships, the ship mooring facilities, piers and the condition of neighboring area of the sea after all the warnings or advisories are cancelled.

5. IMPORTANT NOTE

(1) Recommendations by Port Captain

Recommendations will be issued by Port Captain of Keihin port when Tsunami advisory or above will be announced at the basin of the Tokyo bay.

Ships should take necessary actions according to the attached table which was defined by this council with or without the recommendations from Port captain of Keihin port if Tsunami advisory or above will be announced by the Meteorological Agency since the delay of communication transmission will be occurred by the shutoff of communication means.

(2) The revision of the outline

The outline will be revised accordingly when Tsunami damage simulation and/or Tsunami hazard map for Keihin port will be available.

(3) The emergency communication exercise of evacuation recommendations.

The emergency communication exercise of evacuation recommendations will be conducted once or more time a year according to Attachment 3.

Supplementary Provisions

Enforcement	August 25 th 2005
Revision	June 10 th 2015
Revision	February 29 th 2016

End of the guideline

In-Table Summarized Tsunami Response Actions by Vessel Type and Situation

Tsunami Warning/Advisory,Vessel Types,and Recommended Actions

Tsunami Warning/Advisory (PH:Predicted Height)	Time Allowance to Tsunami Strike	In a port Berthing Vessels			Anchoring Vessels/Buoy-mooring Vessels	Proceeding Vessels(Including Arrival/Leaving shore Work)		Construction work in the port Working Vessels (Including Crane Ship,etc)
		Large/Mid-Size Vessels(Including Fishing Vessels)		Small Vessels		Large/Mid-Size Vessels(Including Fishing Vessels)	Small Boats(Pleasure Boats,Fishing Boats,etc)	
		Vessels Carrying Dangerous Cargo	General Vessels (Including Working Vessels)	Small Vessels(Pleasure Boats,Fishing Boats,etc)				
Major Tsunami Warning Over 10meters (10m<PH) 10meters (5m<PH≤10m) 5meters (3m<PH≤5m)	No	○Suspend loading/unloading or operations ○Berthing sheltering or evacuation on terrene		○evacuation on terrene	○Suspend loading/unloading or operations ○In a port sheltering	○In a port sheltering	○In a port sheltering or evacuation on terrene after docking	○Suspend construction and work ○Evacuation on Terrene
	Yes	○Suspend loading/unloading or operations ○Offshore evacuation		○Evacuation on terrene after lift on the terrene and do lashing or strengthen mooring(Offshore evacuation,if necessary)	○Suspend loading/unloading or operations ○Offshore evacuation	○Offshore evacuation	○Lift on the terrene and do lashing after dockings or evacuation on terrene or evacuate outside the port after strengthen mooring	○Suspend construction and work ○Offshore evacuation or preventive measures against drifting
Tsunami Warning 3m (1m<PH≤3m)	No	○Suspend loading/unloading or operations ○Berthing sheltering or evacuation on terrene		○Evacuation on terrene	○Suspend loading/unloading or operations ○In a port sheltering	○In a port sheltering	○In a port sheltering or evacuation on terrene after docking	○Suspend operations ○Evacuation on terrene
	Yes	○Suspend loading/unloading or operations ○Offshore evacuation		○Evacuation on terrene after lift on the terrene and do lashing or strengthen mooring(Offshore evacuation,if necessary)	○Suspend loading/unloading or operations ○Offshore evacuation	○Offshore evacuation	○Lift on the terrene and do lashing after dockings or evacuation on terrene or evacuate outside the port after strengthen mooring	○Suspend construction and work ○Offshore evacuation or preventive measures against drifting
Tsunami Advisory 1m (0.2m<PH≤1m)	—	○Suspend loading/unloading or operations ○Berthing sheltering or offshore evacuation		○Evacuation on terrene after lift on the terrene and do lashing or strengthen mooring(Offshore evacuation,if necessary)	○Suspend loading/unloading or operations ○In a port sheltering (Offshore evacuation,if necessary)	○Offshore evacuation	○Lift on the terrene and do lashing after dockings or evacuation on terrene or evacuate outside the port after strengthen mooring	○Suspend construction and work ○Offshore evacuation or preventive measures against drifting
Remarks		Business operators are required to prepare action manuals		May evacuate outside the port in case there is enough time to refuge and enough area outside the port				

The response to information relating to the Tokai earthquake

東海地震に関連する情報	Tokai Earthquake Prediction Information	○Suspend loading/unloading or operations ○Offshore evacuation	○Suspend loading/unloading or operations ○Offshore evacuation	○Evacuation on terrene after lift on the terrene and do lashing or strengthen mooring(Offshore evacuation,if necessary)	○Suspend loading/unloading or operations ○Offshore evacuation	○Suspend construction and work ○Offshore evacuation	○Lift on the terrene and do lashing after dockings or evacuation on terrene or evacuate outside the port after strengthen mooring	○Suspend construction and work ○Offshore evacuation or preventive measures against drifting
	Tokai Earthquake Cautionary Information	○Collection of Information ○Preparatory action based on prevention plans						
	Tokai Earthquake Assessment Report(Extra)	○Collection of Information						
備考								

【Definition of items】

- Large sized vessels: Vessels unable to make self-leaving off the port without the assistance of support boats(tugboats,etc)and/or pilot service.
- Medium saized vessels: Other vessels than large vessels or small vessels.
- Small boats: [Pleasure/fishing boats]They are small enough to be carried onto land and sheltered(excluding docking).
- With dagerous cargo: Dangerous cargo tanker,radioactive substance loading vessels,gunpowder loading vessels.

- On terrene evacuation: Crew members take refuge on terrene in hight places,as hight risk is predicted for in-vessel sheltering.Before leaving the vessel,complete securing -vessel-measures where possi such as securing dangerous cargo and ensuring protection from vessel being swept away.
- Berthing sheltering: Resisting tsunami power while berthing by means of enhancement of berthing force or through the use of engines.(Acceptance of land workers seeking emergency shelters onboat should be considered.
- In a port sheltering: Sheltering in the emergency sheltering area inside the port and resisting tsunami water power by means of anchors or using engines/thrusters.
- Offshore evacuation: Choose a wide area where water is deep and away from the coast(if face a difficulties in evacuation,re-choose in a port sheltering.)
- Lift on the terrene and do lashing: Unload and secure the pleasure boats and other small boats so that they may not get washed away to sea by the tsunami.