

Countermeasures arrangement of Tsunami

Appendix Table 3

Categories of Tsunami Prediction		Time Available Before Arrival of Tsunami	Measures to be Taken by Vessels						Construction work, etc.
			Vessels Docked at Port			Vessels Anchored or Buoy Mooring (exclusive of small boats)	Vessels in Navigation	Vessels in Navigation or Vessels Anchored	
			Large Vessels and Medium Vessels (including Fishing Boats)	Small Boats	Large Vessels, Medium Vessels (including Fishing Boats)		Small Boats (Pleasure Boats, Small Fishing Boats, etc.)		
Height of Tsunami	Vessels Loaded with Dangerous Goods	General Vessels (including Vessels for Loading/Unloading and Other Operations)	Pleasure Boats, Small Fishing Boats, etc.						
Tsunami Advisory	1 meter	/	Suspend loading, unloading, and other work Mooring harborage, or evacuate outside of the port	Suspend loading, unloading, and other work Mooring harborage, or evacuate outside of the port	Land and tether vessels ,or strengthen moorings then evacuate ashore or evacuate outside of the port	Suspend work Port harborage or evacuate outside of the port	Evacuate outside of the port	Landed at the pier,land and tether vessels or strengthen moorings , evacuate ashore or evacuate outside of the port	Suspend construction and work tether equipments, evacuate ashore
Tsunami Warning	3 meters	No	Suspend loading, unloading, and other work Mooring harborage	Suspend loading, unloading, and other work Mooring harborage	Evacuate ashore	Suspend work Port harborage	Port harborage	Landed at the pier, evacuate ashore or port harborage	Suspend construction and work Evacuate ashore
		Yes	Suspend loading, unloading, and other work Evacuate outside of the port	Suspend loading, unloading, and other work Evacuate outside of the port or mooring harborage	Land and tether vessels ,or strengthen moorings then evacuate ashore or evacuate outside of the port	Suspend work Port harborage or evacuate outside of the port	Evacuate outside of the port	Landed at the pier,land and tether vessels or strengthen moorings , evacuate ashore or evacuate outside of the port	Suspend construction and work tether equipments, evacuate ashore
Large Tsunami Warning	5 meters, 10 meters, 10 meters or higher	No	Suspend loading, unloading, and other work Mooring harborage or evacuate ashore	Suspend loading, unloading, and other work Mooring harborage or evacuate ashore	Evacuate ashore	Suspend work Port harborage	Port harborage	Landed at the pier, evacuate ashore or port harborage	Suspend construction and work Evacuate ashore
		Yes	Suspend loading, unloading, and other work Evacuate outside of the port	Suspend loading, unloading, and other work Evacuate outside of the port	Land and tether vessels ,or strengthen moorings then evacuate ashore or evacuate outside of the port	Suspend work Port harborage or evacuate outside of the port	Evacuate outside of the port	Landed at the pier,land and tether vessels or strengthen moorings , evacuate ashore or evacuate outside of the port	Suspend construction and work tether equipments, evacuate ashore
Earthquake Warning regarding Tokai Earthquake									
Precautionary measures of Earthquake			Gathering informations Shift to outside from port or safety area of taking disaster prevention measures						
Precautions			※With Tsunami Advisory, Tsunami Warning, Large Tsunami Warning announcement of Meteorological Agency ,obtain advice information from CHIEF OF CHIBA PORT ;take refuge measures voluntarily without being concerned to bend. ※Vessels with VHF equipment should constantly monitor VHF channels (International VHF Channel 16). ※Vessels with AIS equipment should keep the AIS equipment operated, and make appropriate input. ※Efforts should be made to gather any available information on the tsunami. ※Assure security of the human life the first, and take the best measures.						

[Time Available Before Arrival of Tsunami]

Yes: There is sufficient time for evacuation from the time of a tsunami warning (for placing vessels in a safe state, e.g., evacuating vessels outside of the port, or landing and tethering vessels).

No: There is not sufficient time for evacuation from the time of a tsunami warning (for placing vessels in a safe state, e.g., evacuating vessels outside of the port, or landing and tethering vessels).

[Terms and Definitions]

Large Vessels: Such vessels, needing the supplementary giving aid to such as tugboats, a pilot, and the departure from a port in single is difficult.

Medium Vessels: Such vessels, exclusive of Large Vessels or Small Boats.

Small Boats: Such vessels, including pleasure boats and fishing boats, as are capable of loading/unloading operation in the port (except for loading/unloading at shipyards).

Evacuate ashore: Since evacuation by vessels is expected to be very dangerous, crews and other persons involved should evacuate to higher ground. Measures should be taken to the extent possible to prevent vessels from leaving anchor, mooring, or

Evacuate outside of the port: Evacuation off the bay to waters with sufficient water depth and wide areas.

Port Harborage: To endure a tsunami by using the anchor, engine or thruster at safety area of inside of the port.

Mooring Harborage: To endure a tsunami at mooring state by a mooring reinforcement and the combination of using the engine.

Land and tether vessels: Landing and tethering small boats including pleasure boats and fishing boats so as not to be engulfed or swept up by the tsunami.

Strengthen moorings: Be careful about damage to berthing ropes due to the tsunami or other causes, and take measures such as using more berthing ropes.