

Ministry of Transport Ordinance No. 30 of Showa 32

Dangerous Goods Shipping and Storage Regulations

The Dangerous Goods Shipping and Storage Regulations shall be established as follows:

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(Gross tonnage)

Article 1-2 When this Ministerial Ordinance is applied, the gross tonnage shall be the gross tonnage of Article 66-2 of the Ordinance for Enforcement of the Ship Safety Act (Ministry of Transport Ordinance No. 41 of Showa 38).

(Terminology)

Article 2 In these Regulations, the meanings of the terms listed in the following items shall be as set forth in each of the following items.

(i) "Dangerous goods" means the following:

(b) Explosives: Gunpowder, explosives, ammunition, pyrotechnics, and other explosive substances specified in the notification.

(b) High-pressure gas means a substance with a vapor pressure exceeding 0.30 megapascals at 50 degrees Celsius, or a substance that becomes completely gaseous at a pressure of 0.1013 megapascals at 20 degrees Celsius, as specified in the notification.

(c) Flammable liquids: The following:

(1) Flash point (refers to the flash point from the sealed container test) The same shall apply hereinafter. Liquids with a flash point of more than 35 degrees Celsius and are recognized as having no combustion continuity. and those specified in the notification

(2) Liquids with a flash point exceeding 60 degrees Celsius and are transported at temperatures higher than the flash point of the liquid (excluding liquids that are recognized as having no continuous combustion). and those specified in the notification

(3) Substances that are transported in a heated and liquid state at temperatures higher than the temperature at which the substance generates flammable vapours (excluding substances that are recognized as not having combustion continuity). and those specified in the notification

(d) Flammable substances: Refers to the following:

(1) Flammable substance: A substance that is easily ignited by fire or the like, and is easily burned, and is specified in the notification.

(2) Spontaneously combustible substance: A substance that generates spontaneously or is susceptible to spontaneous combustion, and is specified in the notification.

(3) Water-reacted flammable substance: A substance that reacts with water to generate flammable gases and is specified in the notification.

(e) Oxidizing substances: Refers to the following:

(1) Oxidizing substances: Substances that have the property of oxidizing other substances (excluding organic peroxides). and those specified in the notification.

- (2) Organic peroxide means an organic substance that has the property of easily releasing active oxygen and oxidizing other substances, and is specified in the notification.
  - (f) Poisonous substances means the following:
    - (1) "Poisonous substance" means a substance that has a toxic effect on the human body and is specified in the notification.
    - (2) Substances that are susceptible to the transmission of pathogens means live pathogens, substances that contain live pathogens, or substances that are recognized as having live pathogens attached, and which are specified in the notification.
  - (g) Radioactive materials, etc. means the following:
    - (1) "Radioactive substance" means a substance that naturally emits radiation with ionizing effect and is specified in the notification.
    - (2) Objects contaminated by radioactive materials: Solid materials that are recognized as having radioactive materials attached (excluding radioactive materials) The radioactive surface density of the radioactive material on the surface exceeds the density specified in the notification.
  - (c) Corrosive substance: A corrosive substance specified in a notification.
  - (ii) Hazardous substances: Substances other than those listed in (a) to (c) that may cause harm to people or damage other property, and are specified in the notification.
- 1-2 Bulk Liquid Dangerous Goods means liquid substances that are transported in bulk and are listed below.
- (b) Liquefied gas substance: A liquid having a gas pressure exceeding 0.28 megapascals (absolute pressure) at 37.8 degrees Celsius and a liquid having similar properties and specified in the notification.
  - (b) Liquid chemicals: Liquid substances having the following properties with a gas pressure of 0.28 megapascals (absolute pressure) or less at 37.8 degrees Celsius (oil (oil in Article 3, Item 2 of the Act on the Prevention of Marine Pollution, etc. and Maritime Disasters (Act No. 136 of Showa 45))). The same shall apply hereinafter. Excludes. and those specified in the notification.
    - (1) Corrosive
    - (2) Toxicity to the human body
    - (3) Flammability
    - (4) Spontaneous combustion
    - (5) Dangerous reactivity
  - (c) Flammable liquid substance: A liquid with a flash point of 60 degrees Celsius or less (excluding those listed in (a) and (b)). and those specified in the notification.

- (d) Hazardous liquid substance: A liquid substance other than the substances listed in (a) to (c) and refers to the dangerous goods listed in the preceding item.
- (ii) "Dangerous goods for everyday use" means dangerous goods used on board a vessel to maintain the safety of navigation or human life.
- 2.2 Small containers: Containers with a mass of 400 kilograms or less of dangerous goods to be stored (in the case of containers specified in the notification for storing liquid dangerous goods, limited to containers with an internal volume of 450 liters or less). Of these, it refers to those specified in the notification.
- (2.3) "Large container" means a container with an internal volume of more than 450 liters or a container with an internal volume of more than 400 kilograms of dangerous goods to be stored, with an internal volume of 3,000 liters or less, as specified in the notification.
- 2.4 IBC container means a metal container with an internal volume of 3,000 liters or less, a hard plastic container, a composite container with a plastic container, a flexible container, a fiber board container, and a wooden container, other than a small container or a large container, as specified in the notification.
- 2.5 Portable tanks: Containers other than small containers, large containers, and IBC containers (limited to containers filled with high-pressure gas, with an internal volume of 450 liters or more) Of these, it refers to those specified in the notification.
- 2.6 "High-pressure container" means a container filled with high-pressure gas or a container for storing liquid hazardous materials, other than small containers, large containers, IBC containers, and portable tanks, which are specified in the notification.
- 2.7 Flexible bulk container means a flexible container with an internal volume not exceeding 15,000 liters, other than small containers, large containers, IBC containers, portable tanks, and high-pressure containers, as specified in the notification.
- (iii) On-deck loading means the loading of dangerous goods on an exposed deck or in an open deck, deck room, or similar place.
- (4) Cover loading on deck: Means the loading of hazardous materials on an exposed deck covered with a covering cloth, etc.
- (5) Loading of dangerous goods in an open deck or deck room, or in a similar place.
- (6) Under-deck loading means the loading of hazardous materials in a place below deck where they are exposed, other than open decks, deck rooms, and similar places.
- (vii) Deck-to-deck loading: Dangerous goods on the upper deck (or on the deck of a full-way vessel in the case of an all-through ship. The same shall apply hereinafter. and the deck directly below it.

(8) Loading in the warehouse: Loading dangerous goods in a place below the upper deck where ventilation can be done (excluding loading between decks). Refers to the following.

9. Barges Dangerous goods (including bulk liquids, dangerous goods) The same applies to the following items and items 11, Article 5, paragraph 2, Article 5-4 and Article 5-9. A vessel that does not have a propulsion engine or sail rigging.

(10) Tankers: vessels (excluding barges) that carry or store liquid cargo that is dangerous goods in bulk in tanks constituting part of the hull. Refers to the following.

11. Tank vessels: Tanks in which liquid cargo, which is dangerous goods, are carried in tanks that do not form part of the hull (except those mounted on the exposed deck). Vessels (excluding barges) that are transported or stored in bulk. Refers to the following.

(Classification, etc.)

Article 3 In these Regulations, the classification of dangerous goods shall be as follows:

(1) Explosives

2. High-pressure gas

3. Flammable liquids

4. Flammable substances

5. Oxidizing substances

6. Poisonous substances

7. Radioactive materials, etc.

VIII. Corrosive substances

9. Hazardous substances

2. In these Regulations, the items of high-pressure gases, flammable substances, oxidizing substances and poisonous substances shall be specified in the notification.

3. For the purposes of these Regulations, the names of dangerous goods and bulk liquid dangerous goods shall be specified in the notification.

4. For the purposes of these Regulations, the UN number, grade, quarantine classification, secondary hazard class, and container grade of dangerous goods shall be specified in the notification for each product name.

(Restrictions on carry-on)

Article 4 When bringing in dangerous goods for transportation or storage, dangerous goods specified in the notification (limited to those that are less than or equal to the quantity specified in the notification, respectively) Except in cases where the vessel is carried in with the permission of the captain or as otherwise stipulated by law, dangerous goods other than dangerous goods for normal use shall not be brought into the vessel.

2. In granting the permission set forth in the preceding paragraph, the master may give the necessary instructions regarding the container, packaging, and loading location of the dangerous goods.

(Construction, etc.)

Article 5 In the case of a ship loaded or stocked with explosives, construction work (welding, beating, and other work involving sparks or heat generation) shall be carried out. Same as in this article. You must not do so.

2. No construction shall be carried out in the holds or compartments of ships or in adjacent areas where dangerous goods other than explosives or substances emitting flammable or explosive vapors are loaded or stored.

(3) In the case of construction work in a hold or compartment loaded with explosives, flammable substances or oxidizing substances, the construction operator must<sup>3</sup> 渣 obtain confirmation in advance from the owner or master of the vessel that there is no risk of explosion or fire due to the residual hazardous materials.

(4) No construction, cleaning, or other work shall be carried out in the hold or compartment of a vessel or in a place adjacent thereto that has been loaded or stored with flammable liquids or substances emitting flammable or explosive vapors, except in the following cases:

(i) When the flammable or explosive vapor in the hold or compartment has been replaced by fresh air, and the construction or other work executor has conducted a gas test in advance and confirmed by the owner or master that there is no risk of explosion or fire;

(ii) If the condition of the gas in the hold or compartment is inactive, the Director of the Regional Transport Bureau (including the Director of the Transport Supervision Department) shall be charged. The same shall apply hereinafter. When it is recognized that it is okay to consider the construction method, etc.

5. The provisions of paragraphs (1) and (2) shall not apply to dangerous goods for general use. In this case, it must be confirmed that there is no risk of explosion or fire before construction.

6. When carrying out construction, cleaning, or other work in tankers, tank vessels, or barge tanks that have been loaded or stored with high-pressure gases, flammable liquids, poisonous substances, or corrosive substances that generate gases harmful to the human body (except for cases where seafarers perform such work under the Seafarers Act (Act No. 100 of Showa 22)). The person executing the construction or other work shall conduct a gas test in advance to confirm that there is no dangerous amount of gas in the tank.

(Empty container)

Article 5-2 Empty containers used for the transportation or storage of dangerous goods (excluding those listed in the following items) This

Regulation (excluding the provisions of Articles 111 and 112) shall be deemed to contain such dangerous goods. ) to apply.

(1) Dangerous goods (excluding radioactive materials, etc.) The empty container used for carriage or storage has been cleaned and confirmed by the shipper that there is no danger from residual contents.

(ii) Empty containers used for the transportation or storage of radioactive materials, etc., have been cleaned, and the radioactive surface density of the radioactive materials on the inner surface of the container does not exceed the density specified in the notification.

(Delegation of Authority)

Article 5-3 The authority vested in the Director of the Regional Transport Bureau pursuant to these Regulations (excluding the authority provided for in Article 87, Paragraph 1); Transportation Bureaus, etc.

(Transportation Bureaus) (Transportation Bureaus (excluding Fukuoka Transport Bureaus) listed in Appendix 2, Item 1 of the Regional Transport Bureau Organization Regulations (Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 73 of 14). Excludes. and the maritime offices listed in Item 5(2) of Appendix 5 of the same Order. The same shall apply hereinafter. In Okinawa Prefecture, the head of the relevant transport bureau, etc., and in Okinawa Prefecture, the office located in the Okinawa General Secretariat pursuant to the provisions of Article 47, Paragraph 1 of the Cabinet Office Establishment Act (Act No. 89 of 11), which is to be handled by the Regional Transport Bureau, among the affairs that is to be handled by the Regional Transport Bureau, shall be performed by the head of the office stipulated in Article 212, Paragraph 2 of the Organization Ordinance of the Ministry of Land, Infrastructure, Transport and Tourism (Cabinet Order No. 255 of 12).

(Transit Institution)

Article 5-3-2 Confirmation pursuant to the provisions of Article 87,

Paragraph 1 (limited to those conducted by the Minister of Land, Infrastructure, Transport and Tourism) The application must be made by the Director of the Regional Transport Bureau having jurisdiction over the shipping port (or the Director of the Kanto Transport Bureau if the shipping port is outside Japan). The same shall apply hereinafter. It shall be carried out via the

2. The submission of a transportation plan to the Minister of Land, Infrastructure, Transport and Tourism pursuant to the provisions of Article 99, paragraph (1) shall be made via the Director of the Regional Transport Bureau having jurisdiction over the first shipping point (or the Director of the Kanto Transport Bureau if the first shipping point is outside Japan).
3. Permission pursuant to the provisions of Article 390-2 (limited to those granted by the Minister of Land, Infrastructure, Transport and Tourism)

The application must be made to the director of the nearest regional transport bureau (if the applicant is located outside of Japan, the director of the Kanto Transport Bureau. The same shall apply hereinafter. It shall be carried out via the  
(Exceptions to Application)

Article 5-3-3 Polar Sea Navigation Vessel (Refers to a polar sea navigation vessel stipulated in Article 2, Paragraph 6 of the Ship Equipment Regulations (Ministerial Ordinance No. 6 of Showa 9)) The same shall apply hereinafter in this Article, Article 246(5) and Article 313(5). The provisions of this Ministerial Ordinance concerning vessels navigating polar waters shall not apply only if the Director of the Regional Transport Bureau having jurisdiction over the location of the vessel deems it acceptable.

Part II: Carriage of Dangerous Goods

Chapter 1 General Provisions

(Cargo handling)

Article 5-4 In the case of loading, unloading, or otherwise handling dangerous goods, the captain or a person acting on behalf of the captain must be present.

Article 5-5 In the case of transporting liquefied gas substances and liquid chemicals in bulk, and in the case of transporting dangerous goods in bulk (containers stipulated in Article 19-3 of the Ordinance for Enforcement of the Ship Safety Act, with a bottom area of 7 square meters (those without a bracket at the top, or international navigation (refers to an international voyage as defined in Article 1, Paragraph 1 of the Ordinance for Enforcement of the Ship Safety Act)). The same shall apply hereinafter. In the case of items used for carriage by vessels not engaged in the above, it is limited to 14 square meters or more. The same shall apply hereinafter. or a motor vehicle, etc. (Road Traffic Law (Act No. 105 of Showa 35) Article 2, Paragraph 1, Items 9 to 11 Refers to a motor vehicle, a motorized bicycle, or a light vehicle. The same shall apply hereinafter. If the information necessary for the safe carriage of the cargo cannot be obtained, the master shall refuse to load the cargo.

Article 5-6 and Article 5-6-2 Deletion

(Signs of vessels carrying dangerous goods)

Article 5-7 Vessels sailing or anchored in the port of Hucheon and carrying explosives, high-pressure gases, flammable liquids, organic peroxides, poisons, radioactive substances, etc., as cargo shall display red flags during the day and red lights at night, and must display them on masts or other places where they can be seen. However, this does not apply if a vessel carrying dangerous goods listed in Article 22, Item 3 of the Maritime Traffic Safety Act (Act No. 115 of Showa 47) is carrying a sign or light listed in the table Dangerous Goods Loading Vessel in Article 22

of the Enforcement Regulations of the Maritime Traffic Safety Act (Ordinance No. 9 of the Ministry of Transport of Showa 48). (Provision of Dangerous Goods Handling Regulations, etc.)

Article 5-8 Vessels carrying dangerous goods listed in each item of Article 111, Paragraph 1, and bulk liquid dangerous goods (excluding hazardous liquid substances) In order to prevent the danger that may arise from the carriage of the dangerous goods, the owner of the vessel (in the case of flammable liquid substances, tankers, tank vessels, and barges with tanks attached) shall take precautions (hereinafter referred to as "precautions to prevent danger") regarding the properties of the dangerous goods, work methods, measures to be taken in the event of a disaster, and other precautions (hereinafter referred to as "precautions to prevent danger"). Dangerous goods handling regulations must be prepared and provided to the master of the vessel concerned. provided, however, that in the case of the provision of the Emergency Measures for Disaster Countermeasures as set forth in Appendix 4, it is not necessary to include such matters in the Regulations for the Handling of Dangerous Goods when precautions to prevent danger are described in the Emergency Measures Handbook for Disaster Countermeasures.

2. The master shall ensure that the crew of the vessel and the workers performing the work are aware of and comply with the matters described in the Dangerous Goods Handling Regulations set forth in the preceding paragraph.

Article 5-8-2 In the case of transporting dangerous goods other than the dangerous goods set forth in paragraph 1 of the preceding Article, the shipper shall be the shipowner or the master of the ship (in the case of transporting dangerous goods in a container or loading them in a motor vehicle, etc., and when the ship owner stores or loads them, it is limited to the shipowner). A document containing information on measures to be taken in the event of a disaster related to the hazardous material must be submitted. However, this does not apply if the director of the regional transport bureau having jurisdiction over the shipping area deems it safe to do so.

2. The master shall submit the documents (including copies, etc.) set forth in the preceding paragraph. The same applies to the next section. shall be stored on board the vessel until the end of the carriage.

3. When transshipment of dangerous goods to another vessel, the owner or master of the former vessel shall deliver the document referred to in paragraph (1) to the owner or master of the later vessel.

(Measures in transit)

Article 5-9 The master must take sufficient care to prevent disasters from occurring due to dangerous goods loaded on board.

2. The master may dispose of dangerous goods on board a vessel when he deems it necessary to avoid harm to life, ship or other cargo.

(Reports, etc.)

Article 5-10 In the event of or the risk of discharge of dangerous goods transported by any means other than bulk loading, the master shall immediately notify the nearest coast guard of the date, time, place, and circumstances of the discharge, the name and owner of the ship, and the name, quantity, container, and packaging of the dangerous goods.

2. In the case stipulated in the same paragraph, the master of the vessel stipulated in the preceding paragraph makes a report pursuant to the provisions of Article 24 of the Port Regulation Act (Act No. 174 of Showa 23), a report pursuant to the provisions of Article 43, Paragraph 1 of the Maritime Traffic Safety Act, or a report pursuant to the provisions of Article 38, Paragraph 1, Paragraph 2, or 5, Article 42-2, Paragraph 1, or Article 42-3, Paragraph 1 of the Act on the Prevention of Marine Pollution, etc. and Maritime Disasters. It is not necessary to make a report pursuant to the provisions of the preceding paragraph with respect to such report or the matter for which the report has been made.
3. The owner of the vessel referred to in paragraph (1) or any other person who has the right to operate the vessel shall, to the extent possible, comply with requests from the coast guard to provide information necessary to prevent the danger caused by the discharge of dangerous substances referred to in the same paragraph.

## Chapter 2 Transportation of Dangerous Goods

### Section 1 General Provisions

(Applicable)

Article 6 The provisions of this Chapter shall apply to the transportation of dangerous goods by vessel (except for the transport of bulk liquid dangerous goods). Applies to:

(Prohibition of carriage)

Article 7 Dangerous goods that are explosive, toxic, corrosive, etc., and which are specified in the notification as particularly dangerous, shall not be transported by ship.

2. The following dangerous goods shall not be transported by passenger ship:
  - (i) Explosives specified in the notification.
  - (ii) Radioactive goods as defined in Article 71, Paragraph 1, Item 1, in which Class A cargo specified in Appendix 4 is stored.
  - (3) Liquid ammonia and other dangerous goods specified in the notification
3. Notwithstanding the provisions of the preceding paragraph, if the number of passengers on board does not exceed the number specified in the notification, the dangerous goods listed in subparagraph (3) of the same paragraph may be transported by passenger ship.  
(Containers, packaging, etc.)

Article 8 Dangerous Goods (Excluding Dangerous Goods for Everyday Use) The same shall apply hereinafter. In the case of transporting the shipper, the shipper (in the case of transportation without entrusting the carriage to another person, that person. The same shall apply hereinafter. The container, packaging, tag or sign (hereinafter referred to as "tag, etc."). and the display of the product name, UN number, handling precautions, and other information related to the dangerous goods (hereinafter referred to as "product name, etc."). (In the case of transporting dangerous goods stored in a container or loaded on a motor vehicle, etc., it means the container, packaging, label, etc., and the indication of the product name, etc., of dangerous goods stored in the container or loaded on a motor vehicle, etc.) The same shall apply hereinafter. It shall be in accordance with the standards stipulated in the notification.

2. Containers and packaging for storing dangerous goods must be safe for the hazardous materials to be stored, without risk of leakage or damage.
3. When transporting dangerous goods specified in the notification, the shipper referred to in paragraph (1) must use one of the following containers:
  - (i) Small containers, large containers, IBC containers, portable tanks, high-pressure containers, or flexible bulk containers that have been inspected and are marked with effective labeling in accordance with the provisions of Article 113;
  - (ii) Small containers, large containers, IBC containers, portable tanks, high-pressure containers, or flexible bulk containers that are indicated by the government of a foreign country as being recognized by the government of the country as being in compliance with the laws and regulations concerning containers and packaging of dangerous goods in the country concerned, and which are affixed to the indication that they are in force.
  - (3) High-pressure vessels that have passed the container inspection stipulated in Article 44, Paragraph 1 of the High-Pressure Gas Safety Act (Act No. 204 of Showa 26)
  - (4) A high-pressure vessel manufactured outside of Japan that is not supplied to a foreign government (including government agencies and other similar vessels). Those that have passed the inspection conducted by
4. The shipper referred to in paragraph (1) shall not store the dangerous goods to be carried in the same container as the following: However, this does not apply if the director of the regional transport bureau having jurisdiction over the shipping area deems that it is safe to take into account the nature, mass, storage method, etc. of the dangerous goods.
  - (i) Dangerous goods that must be separated from the dangerous goods pursuant to the provisions of Article 21, paragraph 1;

- (ii) Items that may generate heat, generate gas, cause corrosive effects, or cause other dangerous physical or chemical effects due to the action with the hazardous material.

Article 9 Indication of the marks, etc., and product names, etc. set forth in Paragraph 1 of the preceding Article (limited to those specified in the notification) Even if it is immersed in seawater for three months, it must not disappear.

Article 10 The provisions of Article 113, paragraph (4) shall apply mutatis mutandis to the indication of Article 8, paragraph (3), item (ii).

Article 11 Notwithstanding the provisions of Article 8, Paragraph 1, if the Director of the Regional Transport Bureau having jurisdiction over the shipping area deems it unacceptable for safety reasons, the label, etc., and the indication of the product name, etc. may be omitted.

Article 12 Notwithstanding the provisions of Article 8, Paragraph 3, in the following cases, an IBC container or portable tank that does not fall under any of Article 113, Paragraph 4, Item 1, Item 2, or Item 4 may be used, respectively.

- (i) In the case of transporting dangerous goods specified in the notification referred to in Article 8, paragraph (3) within the period specified in the notification from the day following the day on which the indication in paragraph (4) of Article 113 has ceased to be effective in containers and packaging that have lost the validity of the indication (limited to the case where the dangerous goods are stored in the container and packaging before the indication ceases to be effective); )

- (ii) When transporting an empty container referred to in Article 5-2 for the purpose of obtaining an inspection under Article 113, paragraph (1) or a certification by the government of a foreign country in compliance with the laws and regulations concerning containers and packaging of dangerous goods in that country referred to in Article 8, paragraph (3), item (ii);

Article 13 Notwithstanding the provisions of Articles 8 and 20, dangerous goods specified in the notification may be transported in bulk on a vessel other than a passenger ship only if the loading method specified in the notification is used. In this case, the following shall be followed. However, this does not apply if the Minister of Land, Infrastructure, Transport and Tourism deems it safe for safety reasons.

- (1) The loading area shall be cleaned before loading.

- (ii) Only those with the same product name shall be loaded in the same hold or compartment.

2. Article 1-2, Article 1-2-2, Article 1-3, Article 1-4, Paragraph 1, Article 1-4, Article 15-2 to Article 15-3, Article 15-4 to Article 15-10, Article 32, Article 33, Paragraph 3 and Paragraph 9 of the Special Cargo Ship Transportation Regulations (Ordinance No. 62 of the Ministry of

Transport of Showa 39) The provisions of Article 33-2 shall apply mutatis mutandis to the case of transporting dangerous goods in bulk pursuant to the provisions of the preceding paragraph. In this case, the phrase "loading method set forth in each item of Article 15-3-2" in Article 15-5-2 of the same Decree shall be read as "loading method specified in the notification".

3. Articles 16 to 27-2 and Article 33, Paragraphs 5 to 9 of the Regulations on the Transportation of Special Cargo Vessels (limited to the parts pertaining to Paragraphs 5 to 8 of the same Article) The provisions of this paragraph shall apply mutatis mutandis to the case where dangerous goods pursuant to the provisions of paragraph (1) and specified in the notification as falling under the liquefaction of substances in Article 1-2-2, Item 4 of the same Ordinance are transported in bulk.
4. The provisions of Article 28 of the Regulations on the Transportation of Special Cargo Vessels shall apply mutatis mutandis to the case where dangerous goods pursuant to the provisions of paragraph (1) are transported in bulk and specified in the notification as falling under the solid chemical substances referred to in Article 1-2-2, Item 4 of the same Order.

Article 14 Notwithstanding the provisions of Article 8, dangerous goods specified in the notification (limited to those with the same product name) For each class specified in the notification, it may be transported in bulk in a metal container having a non-open structure or a metal container with a sheet having an upper open structure, respectively.  
(Overpack)

Article 15 Overpack (Dangerous goods stored or packaged in containers by the shipper are not limited to boxes or bags, etc. (excluding containers) It refers to items that are stored or packaged in. The same shall apply hereinafter. shall ensure that there is no risk of damage to the individual containers or packaging contained in or packaged in the overpack.

- (2) The shipper shall attach a tag to the overpack of dangerous goods that must be tagged, etc., except in cases where the individual containers stored in or packaged in the overpack or the tags attached to the packaging can be easily identified from the outside.
3. The shipper shall display the name and UN number of the goods on the overpack of dangerous goods the name of the dangerous goods and the UN number of the goods in question, unless the name of the article and the UN number displayed on the individual containers or packaging contained in the overpack are readily visible from the outside.
4. The shipper shall display on the overpack, the overpack indication specified in the notification, unless the label, etc., attached to the individual containers or packaging contained in the overpack or

packaging, as well as the name of the article and the UN number displayed, are readily visible from the outside.

Article 16 The shipper shall not store or wrap dangerous goods to be carried in the same overpack as the following: However, this does not apply if the director of the regional transport bureau having jurisdiction over the shipping area deems that it is safe to take into account the nature, mass, storage method, etc. of the dangerous goods.

- (i) Dangerous goods that must be separated from the dangerous goods pursuant to the provisions of Article 21, paragraph 1;
- (ii) Items that may generate heat, generate gas, cause corrosive effects, or cause other dangerous physical or chemical effects due to the action with the hazardous material.

(Prohibition of storage in containers)

Article 16-2 Shippers and shipowners shall not store dangerous goods to be transported in containers in flexible bulk containers.

(Dangerous Goods Specification)

Article 17 Except in the case where a shipper of dangerous goods submits a Container Dangerous Goods Specification or a Statement of Dangerous Goods such as a Motor Vehicle pursuant to the provisions of Article 30, Paragraph 1 or Article 35, Paragraph 1, the shipowner or the master of the vessel shall submit a Dangerous Goods Statement stating the matters listed in the following items in advance (in the case of transporting dangerous goods in a container, and in the case of storage by the ship owner, it is limited to the shipowner). The same applies to the following article. It must be submitted to.

- (i) the name and address of the shipper;
  - (ii) the name and address of the consignee;
  - (iii) the date on which the Dangerous Goods Statement was prepared or submitted to the shipowner or master;
  - (4) UN number, product name, grade, quarantine classification, secondary hazard class, and container grade of dangerous goods;
  - (v) the number and mass or volume;
  - (6) Other matters stipulated in the notification
2. The description of the Dangerous Goods Specification in the preceding paragraph shall be in accordance with the following.
- (i) Writing in a language understood by the owner or master of the vessel.
  - (ii) The matters listed in item (4) of the preceding paragraph shall be described in the order prescribed in the same item.
  - (3) Among the matters listed in item (4) of the preceding paragraph, the UN number and grade of dangerous goods shall be listed following the letters "UN" and "Class" (or "Division" in the case of explosives), respectively.

(3) The Dangerous Goods Specification referred to in paragraph (1) shall be accompanied by a statement stating that the goods comply with the requirements set forth in each of the following items, or a document certifying that fact, in accordance with the classification of dangerous goods.

(1) Hazardous materials other than radioactive materials, etc.

(b) The container, packaging, label, etc., and the labeling of the product name, etc., of the dangerous goods conform to the provisions of Article 8, Articles 11 to 14, or Article 36, Paragraph 1, or have received permission under the provisions of Article 390-2.

(b) The dangerous goods are in a condition suitable for carriage.

2. Radioactive materials, etc.

(b) In the case of carriage stored in a container or packaged, it shall comply with the provisions of Articles 73 to 85 and Article 87, paragraph 1, or have been approved under the provisions of Article 107.

(b) In the case of carriage that is not stored in a container or packaged, it must conform to the provisions of Article 100, paragraph 1 or have been approved under the provisions of Article 107.

(c) The labels and indications pertaining to the radioactive materials, etc. conform to the provisions of Article 92 or Article 100, Paragraph 5 or Paragraph 7.

(d) The radioactive material is in a condition suitable for transportation.

(4) When a shipper of dangerous goods submits a dangerous goods statement pursuant to the provisions of paragraph (1), the shipper shall keep a copy of the dangerous goods specification for three months. However, this does not apply when transporting dangerous goods between ports in Japan.

5. When transshipment of dangerous goods to another vessel, the owner or master of the former vessel shall deliver the statement of dangerous goods to the owner or master of the later vessel.

6. When the owner or master of a vessel receives a statement of dangerous goods pursuant to the provisions of paragraph (1) or a statement of dangerous goods issued pursuant to the provisions of the preceding paragraph, the owner or master of the vessel shall keep the statement of dangerous goods or a copy thereof for a period of three months. However, this does not apply when transporting dangerous goods between ports in Japan.

Article 18 In lieu of submitting a description of dangerous goods pursuant to the provisions of paragraph (1) of the preceding Article, the shipper shall, with the consent of the shipowner or the master of the ship, comply with the provisions of paragraph (4) of the ship's provisions and submit the matters listed in each item of paragraph (1) of the preceding Article (hereinafter referred to as "listed matters"). A method using an

electronic information processing organization or other information and communication technology, and may be notified by the following. In this case, the shipper shall be deemed to have submitted the relevant dangerous goods specification.

- (i) An electronic information processing organization (an electronic information processing organization in which an electronic computer used by a shipper and an electronic computer used by a shipowner or master are connected by a telecommunication line. The same applies to item (1) of paragraph 3. Of the methods of using (a) or (b)
    - (b) A method of transmitting information from an electronic computer used by the shipper to an electronic computer used by the shipowner or master through a telecommunication line and recording it in a file provided on the computer.
    - (b) A method of making the entries recorded in the file provided on the computer used by the shipper available to the shipowner or master for inspection by the shipowner or master via a telecommunication line, and recording the entries in the file provided in the computer used by the shipowner or the master.
  - (ii) Electromagnetic records (records made by electronic, magnetic, or other methods that cannot be recognized by human perception and used for information processing by electronic computers) The same shall apply hereinafter. Method of issuing a record of the matters described in a file prepared with a recording medium
2. The method set forth in the preceding paragraph shall be such that the owner or master of the vessel can prepare a document by outputting the record on file.
  3. When the shipper intends to notify the ship's stated matters pursuant to the provisions of paragraph (1), the shipper must indicate to the shipowner or master in advance the method referred to in paragraph (1) to be used and the method of recording in a file, and obtain consent in writing or by the following methods:
    - (i) Among the methods of using an electronic information processing organization, those listed in (a) or (b)
      - (b) A method of transmitting the consent of the shipper's computer to the shipper's computer for use via a telecommunication line from the computer used by the shipowner or master and recording it in a file provided on the computer.
      - (b) The method set forth in paragraph (1) recorded in a file provided in an electronic computer used by the shipper and the method of recording in the file shall be made available to the shipowner or master for inspection by the owner or master of the vessel via a telecommunication line, and the method of recording the fact that consent has been given to the file provided in the computer shall be recorded.

- (ii) The methods listed in Item 2 of Paragraph 1
4. If a shipper who has obtained consent pursuant to the provisions of the preceding paragraph requests that the shipowner or the master of the vessel not to receive notice in writing or by the method set forth in paragraph (1), the shipper shall notify the shipowner or the master of the vessel in the manner set forth in paragraph (1). provided, however, that this shall not apply if the owner of the vessel or the master of the vessel has again given consent pursuant to the provisions of the preceding paragraph.
  5. When the shipper notifies the shipper of the matters described in accordance with the provisions of paragraph (1), the shipper shall keep an electromagnetic record recording the entries for a period of three months. However, this does not apply when transporting dangerous goods between ports in Japan.
  6. The provisions of paragraphs (1) to (4) shall apply mutatis mutandis to the case where a statement of dangerous goods is issued pursuant to the provisions of paragraph (5) of the preceding Article.
  7. When the owner or master of a vessel receives a notice of the matters described pursuant to the provisions of paragraph (1) or the provisions of paragraph (5) of the preceding Article, which applies mutatis mutandis to the preceding paragraph, the owner or master of the vessel shall keep an electromagnetic record recording the matters recorded for three months. However, this does not apply when transporting dangerous goods between ports in Japan.

Article 19 When loading dangerous goods on a ship, the master shall confirm that the containers, packaging, labels, etc., and the labeling of the product names conform to the provisions of this Ministerial Ordinance and are consistent with the items described in the Dangerous Goods Specification.

2. In the case of confirming the preceding paragraph, if it is found that there is a risk of violating the provisions of this Ministerial Ordinance with respect to the container, packaging, label, etc., and the indication of the product name, etc., the container may be unpacked and inspected in the presence of witnesses.  
(Loading method, etc.)

Article 20 When transporting dangerous goods, the master shall comply with the standards stipulated in the notification regarding the loading place and other loading methods.

2. When dangerous goods are loaded on deck in containers or packaging that are not waterproof, they must be covered with a covering to prevent damage caused by waves, etc.
- (3) In the case of interdeck loading, a device that can be completely closed shall be installed in the opening of the bulkhead at the loading

place, and when dangerous goods are loaded, it shall be immediately closed and shall not be opened unnecessarily.

(Isolation of Dangerous Goods, etc.)

Article 21 When dangerous goods with different names are loaded on the same vessel, they must be isolated according to the standards specified in the notification.

2. Hazardous materials and solid chemical substances transported in bulk on the same vessel (refers to solid chemical substances as defined in Article 1-2-2, Item 4 of the Special Cargo Ship Transportation Regulations). When loading, it must be isolated according to the standards specified in the notification.

(List of Dangerous Goods Cargoes)

Article 22 The master of a ship shall prepare two copies of the Dangerous Goods Cargo List containing the following items for dangerous goods loaded on board a ship, one of which shall be delivered to the owner of the vessel and the other shall be kept on board the vessel until the carriage of the dangerous goods is completed.

(i) The name, nationality and number of the vessel;

(ii) Whether it is a passenger ship or not.

(iii) Name of the captain

(iv) The name and date of the port of shipping, transshipment and unloading

(v) the name and address of the shipper;

(vi) The name and address of the consignee;

(vii) UN number, product name, grade, quarantine classification, secondary hazard class, and container grade of dangerous goods;

(viii) the number and mass or volume;

9. Place and condition of loading

2. The stacking diagram in which the matters listed in each item of the preceding paragraph is clearly stated may be substituted for the dangerous goods cargo list described in the same paragraph.

3. The owner of the vessel shall submit a list of dangerous goods or a stowage drawing (hereinafter referred to as the "Cargo List, etc.") issued pursuant to the provisions of the preceding two paragraphs. shall be kept in an office on land for one year.

4. Article 18 (excluding paragraphs 5 to 7) The provisions of this paragraph shall apply mutatis mutandis to the case where a cargo list, etc. is issued pursuant to the provisions of paragraph (1) or paragraph (2).

5. When the master notifies the ship of a cargo list, etc., pursuant to the provisions of Article 18, paragraph 1, which applies mutatis mutandis in the preceding paragraph, the master shall keep on board the ship an electromagnetic record recording the cargo list, etc., until the carriage pertaining to the notice is completed.

6. When the owner of a vessel receives a notice of a cargo list, etc., pursuant to the provisions of Article 18, paragraph (1), which applies mutatis mutandis in paragraph (4), the shipowner shall keep an electromagnetic record of the cargo list, etc., in an office on shore for a period of one year.

(Transportation of Repatriated Explosives)

Article 23 In the case of transporting explosives from the sea area in which they were transported with a permit for salvage pursuant to the provisions of Article 4, No. 3 of the Ministry of Transport Ordinance No. 40 of 20 (Ordinance No. 40 of the Ministry of Transport of Showa 20), the explosives concerned shall be subject to the provisions of the preceding chapter (excluding the provisions of Article 5-4, Article 5-9 and Article 5-10). and the provisions of this Chapter.

Section 2 Transportation of Dangerous Goods by Containers, etc.

(Transportation of Dangerous Goods by Container)

Article 24 In the case of transporting dangerous goods in containers, the shipper (or the shipowner in the case where the owner of the vessel stores dangerous goods in a container) shall comply with the provisions of Articles 32 to 28 regarding the structure of the container, the method of storing the dangerous goods, and the signs and labeling of the container, and the master shall comply with the provisions of Articles 32 and 33 regarding the loading method and isolation of the container.

(Structure of containers, etc.)

Article 25 When transporting dangerous goods in containers, they must conform to the standards stipulated in the notification regarding the structure and performance of the containers.

(How to store dangerous goods)

Article 26 When transporting dangerous goods in containers, the containers must be thoroughly cleaned in advance and any signs and indications that do not need to be attached to the container when the dangerous goods are stored must be removed.

2. When storing dangerous goods in a container, the container must be stored so that there is no risk of danger due to movement, falling, impact, friction, crushing, leakage, etc., and so that any part of the dangerous goods does not protrude to the outside, and the opening and closing doors of the container must be closed.
3. When storing dangerous goods specified in the notification as hazardous materials that require temperature control in a container, they must comply with the temperature control method and other standards specified in the notification.
4. When dangerous goods and cargo other than dangerous goods are stored in the same container, the dangerous goods must be stored as close to the opening and closing door of the container as possible.

Article 27 When transporting dangerous goods in containers, the dangerous goods to be transported shall not be stored in the same container as the following: However, this does not apply if the director of the regional transport bureau having jurisdiction over the shipping area deems that it is safe to take into account the nature, mass, storage method, etc. of the dangerous goods.

- (i) Dangerous goods that must be separated from the dangerous goods pursuant to the provisions of Article 21, paragraph 1;
- (ii) Items that may generate heat, generate gas, cause corrosive effects, or cause other dangerous physical or chemical effects due to the action with the hazardous material.

(Signs and Indications)

Article 28 Containers containing dangerous goods that are obliged to be labeled pursuant to the provisions of Article 8, Paragraph 1 shall be marked on all four sides of the container in which the dangerous goods are required to be marked (in the case of storing explosives of different grades, the label of the highest hazard class) in the form prescribed in the notification.

2. The provisions of the preceding paragraph shall apply to explosives specified in the notification or dangerous goods specified in the notification (limited to those that are less than or equal to the mass or capacity specified in the notification, respectively). Hereinafter referred to as "specified dangerous goods" in this article. It does not apply. provided, however, that if the dangerous goods stored in the container are only specified dangerous goods (except in cases where the dangerous goods are only specified in the notification, the dangerous goods that are required to be tagged pursuant to the provisions of Article 8, Paragraph 1 or Article 37-17, Paragraph 1, Item 1 (c) of the Enforcement Regulations of the Act on the Prevention of Marine Pollution, etc. and Maritime Disasters (Ministry of Transport Ordinance No. 38 of Showa 46) (in the following paragraph) Dangerous goods subject to mandatory labeling, etc." Including cases that contain dangerous goods other than the above. shall affix the signs specified in the notification on all four sides of the container.

3 Dangerous goods with the same product name (excluding dangerous goods subject to mandatory labels, etc.) The same shall apply hereinafter in this section. In the case of storing dangerous goods in the same container and transporting dangerous goods in bulk, the name of the item of the dangerous goods must be displayed on at least both sides of the container in the manner specified in the notification. provided, however, that this shall not apply if only dangerous goods with the same product name are stored in the same container, and the UN number of the dangerous goods is displayed on the container in the manner specified in the notification.

4. Dangerous goods with the same UN number (excluding explosives and specified dangerous goods) In the same container in excess of the mass specified in the notification (limited to the case where the dangerous goods are the only dangerous goods stored in the container). In the case of transporting dangerous goods in bulk in containers, the UN number of the dangerous goods shall be displayed on the container in accordance with the standards specified in the notification.
5. Containers containing liquid hazardous materials with a temperature of 100 degrees Celsius or more or solids with a temperature of 240 degrees Celsius or more shall be marked on all four sides in the form prescribed in the notification.
6. When fumigation is applied to cargo stored in a container, a label in the form prescribed in the notification shall be affixed to the opening and closing door of the container in an easily visible position.
7. When a dangerous goods stored in a container are cooled with a refrigerant specified in the notification, or when nitrogen is used to protect the dangerous goods, a label in the form prescribed in the notification must be affixed to an easily visible position on the opening and closing doors of the container.
8. Notwithstanding the provisions of paragraphs (1) and paragraphs (3) to (5), it is not necessary to attach a tag, etc., product name, UN number, or indication referred to paragraph (5) of a container containing a portable tank that can be easily identified from the outside of the container.

Article 29 The provisions of Article 9 shall apply mutatis mutandis to the signs referred to in paragraph (1) of the preceding Article, the indication of the product name or the United Nations number referred to in paragraph (3) of the same Article, the indication of the United Nations number referred to in paragraph (4) of the same Article, and the indication of the indication in paragraph (5) of the same Article.

2. The indications in paragraphs 6 and 7 of the preceding Article shall not be likely to disappear until the carriage of dangerous goods is completed.

(Container Dangerous Goods Statement)

Article 30 Containers for dangerous goods (tank containers (refers to containers to which portable tanks are fixed) The same shall apply hereinafter. Excludes. The same shall apply hereinafter in this Article. (Except when the vessel owner stores dangerous goods in a container). The shipper of dangerous goods must prepare a container dangerous goods specification for each container and submit it to the shipowner or master in advance, stating the items listed in the following items.

- (i) Container number
- (ii) the name and address of the shipper;
- (iii) The name and address of the consignee;

- (iv) the date on which the Container Dangerous Goods Statement was prepared or submitted to the shipowner or master;
  - (v) UN number, product name, grade, quarantine classification, secondary hazard class, and container grade of dangerous goods;
  - (vi) Number and mass or volume
  - (7) Other matters stipulated in the notification
- (2) In the case of transporting dangerous goods in a container and the shipowner stores the dangerous goods in a container, the shipowner must prepare and deliver to the master in advance a container dangerous goods specification stating the name or name and address, as well as the matters listed in each item of the preceding paragraph.
3. The provisions of Article 17, Paragraph 2 shall apply mutatis mutandis to the method of description of the Container Dangerous Goods Specification described in the preceding two paragraphs.
- (4) The container dangerous goods specification referred to in paragraph (1) shall be accompanied by a document certifying or certifying that the container, packaging, labels, etc., product names, etc., and the labels and labels of the container conform to the provisions of this Ministerial Ordinance and are in a condition suitable for transportation, and the container dangerous goods specification referred to in paragraph (2) shall include the dangerous goods specification referred to in Article 17 (including documents attached pursuant to the provisions of paragraph (3) of the same Article). In addition, it must be added that the storage method and container labeling of the dangerous goods conform to the provisions of this Ministerial Ordinance and are in a condition suitable for transportation, or a document certifying this must be attached.
- (5) When a shipper of dangerous goods submits a container dangerous goods statement pursuant to the provisions of paragraph (1), the shipper shall keep a copy of the container dangerous goods statement for three months. However, this does not apply when transporting containers containing dangerous goods between ports in Japan.
6. When a container containing dangerous goods is transferred to another vessel, the owner or master of the former vessel shall deliver a container dangerous goods statement of the container to the owner or master of the later vessel.
7. When the owner or master of a vessel receives a Container Dangerous Goods Statement pursuant to the provisions of paragraph (1) or a Container Dangerous Goods Statement issued pursuant to the provisions of the preceding paragraph, the Container Dangerous Goods Statement or a copy thereof shall be kept for a period of three months. However, this does not apply when transporting containers containing dangerous goods between ports in Japan.
- 8 Article 18 (excluding paragraph 6) The provisions of this paragraph shall apply mutatis mutandis to the case of submitting a container dangerous

goods statement pursuant to the provisions of paragraph (1) or issuing a container dangerous goods statement pursuant to the provisions of paragraph (2) or paragraph (6).

(Confirmation before loading containers, etc.)

Article 31 The master of a ship shall use containers (excluding tank containers) in which dangerous goods are stored. The same shall apply hereinafter in this Article. In addition to confirming that the label of the container matches the items described in the Container Dangerous Goods Specification, it is necessary to investigate whether there are any abnormalities such as damage to the container or leakage of dangerous goods.

2. If, as a result of the investigation described in the preceding paragraph, the master finds that there is a risk of violating the provisions of this Ministerial Ordinance with respect to the labeling and storage method of containers, packaging, labels, etc., product names, etc., and the signs and indications of containers, the master may open, unpack, and inspect the container in the presence of witnesses.

Article 31-2 The provisions of Article 1-2-3 of the Regulations for the Transportation of Special Cargo Vessels shall apply mutatis mutandis to the case where dangerous goods are transported in containers. In this case, the term "the mass of the cargo listed in Item 5 of the preceding Article" in Paragraph 1 of the same Article shall be read as "the mass obtained by summing the mass of the container and the mass of the object stored in the container", the term "container yard representative" in Paragraph 2 of the same Article shall be read as "the master and the representative of the container yard", and the reference to "the preceding Article and the preceding paragraph" in Paragraph 3 of the same Article shall be read as "the preceding paragraph".

(Container loading method, etc.)

Article 32 When loading a container containing dangerous goods, it must be loaded in such a way that it does not move, fall, damage, collapse, etc.

2. When a container containing dangerous goods is loaded on a hold, compartment or deck of a vessel equipped for loading only containers, the loading method specified in the notification shall be used in addition to the one provided for in Article 20.

3. When a container that has been fumigated into the stored cargo is loaded onto a passenger ship, it must be loaded on the deck.

4. When a container that has been fumigated is loaded under the deck of the stored cargo, a device for detecting fumigation gas and an instruction manual for the device must be kept on board.

(Isolation of containers from each other)

Article 33 Notwithstanding the provisions of Article 21, when a container containing dangerous goods is loaded on a hold, compartment or deck of a

vessel equipped for loading containers only, the quarantine standards prescribed in the notification may be followed.

(Exemptions)

Article 34 The provisions of Article 19 shall not apply when transporting dangerous goods in containers.

2 Windtight containers for dangerous goods (excluding tank containers) The provisions of Article 20, Paragraph 2 shall not apply.

(Transportation of Dangerous Goods by Car Ferry)

Article 35 The provisions of Articles 24, 26 to 31, Article 32, Paragraphs 2 to 4, Article 33 and the preceding Article shall apply mutatis mutandis to the case where dangerous goods are loaded on a motor vehicle and transported by car ferry. In this case, the term "dangerous goods such as the structure of containers" in Article 24 shall be substituted for "dangerous goods", the words "the following article" shall be substituted for "Article 26", the words "Article 32" shall be substituted for "Article 32, paragraphs (2) to (4)", the words "containers" in Article 26, paragraph (1) shall be substituted for "the bed of automobiles, etc.", and the words "opening and closing doors of containers" in paragraphs (2) and (4) of the same Article shall be substituted for "opening and closing doors of the loading platforms of motor vehicles, etc." In Article 28, paragraphs (1) and (5), the term "four aspects" shall mean "both sides and the rear end (牽<sup>uA</sup>semi-trailer not connected to a towing vehicle (a towed vehicle without a front axle<sup>uA</sup>, a part of which is <sup>uA</sup>placed on a towing vehicle, and a <sup>uA</sup>substantial portion of the weight of the towed vehicle and its payload) <sup>uA</sup>It refers to a structure that is supported by a towing vehicle. and in Article 30, Paragraph 1, "Tank container (means a container in which a portable tank is fixed. "Tank vehicles and tank trucks", "Container Dangerous Goods Specification" means "Statement of Dangerous Goods such as motor vehicles", "Container number" is "Matters that identify motor vehicles, etc.", "Container Dangerous Goods Specification" in the provisions of Paragraphs 2 to 8 of the same Article is "Specification of Dangerous Goods such as motor vehicles", and "Tank container" in Article 31, Paragraph 1 is "Tank Vehicles and Tank Vehicles". The term "Container Dangerous Goods Specification" shall be substituted for "Statement of Dangerous Goods of Automobiles, etc.", the term "damage to containers" shall be substituted for "damage to the bed of motor vehicles, etc.", the term "containers" in Paragraph 2 of the same Article shall be substituted for "the opening and closing doors of the loading platforms of motor vehicles, etc.", and the words "on the hold, compartment or deck of a vessel equipped for loading only containers" in Article 32, Paragraph 2 shall be substituted for "Roll-on-roll-off cargo area (refers to the roll-on-roll-off cargo area in Article 2, Item 17-2 of the Ship Fire Prevention Structure Regulations (Ministry of Transport Ordinance No. 11

of Showa 55)). The same shall apply hereinafter. In Article 33, the words "in a hold, compartment or deck equipped for loading only containers" shall be read as "roll-on/roll-off cargo area", in Article 34, paragraph 2, the term "weather-tight containers" shall be read as "wind-tight trucks, etc.", and the words "tank containers" shall be read as "tank cars and tank cars".

2. In the case of transporting dangerous goods by car ferry, etc., loaded on a motor vehicle, etc., the shipper (or the shipowner in the case of the owner of the vessel loading dangerous goods in a motor vehicle, etc.) shall be responsible for the refrigeration capacity of the refrigeration equipment (limited to those that freeze dangerous goods loaded on a motor vehicle, etc.). The master of the vessel shall follow the method of loading the motor vehicle, etc., as stipulated in the notification.

Article 36 In the case of transporting a motor vehicle carrying dangerous goods by a car ferry that is not engaged in international voyages, and in accordance with the provisions of the Explosives Control Act (Act No. 149 of Showa 25), the High Pressure Gas Safety Act, the Fire Service Act (Act No. 186 of Showa 23), or the Poisonous and Deleterious Substances Control Act (Act No. 303 of Showa 25), Article 8, Article 9, Article 15, Article 16, The provisions of Articles 28, 29, 46, 54, 61, 62, 65, 68 mutatis mutandis, which apply mutatis mutandis to the preceding Article, shall not apply.

2. Notwithstanding the provisions of paragraph (2) of Article 7, if the director of the Regional Transport Bureau having jurisdiction over the location of the vessel considers the structure of the vessel and the mode of navigation to be safe and permits it, the passenger may transport a tank car or a tank car carrying dangerous goods as specified in the notification in paragraph (3) of the same Article on a motor vehicle ferry carrying a number of passengers in excess of the number specified in the notification in paragraph (3) of the same Article, in accordance with the provisions of the notification in paragraph (2) of the preceding Article.
3. In the event that a tank car or a tank car referred to in the preceding paragraph is transported by a car ferry carrying a number of passengers in excess of the number specified in the notification in paragraph (3) of Article 7 with a permit for carriage pursuant to the provisions of the preceding paragraph, the master of the motor vehicle shall comply with the following items regarding the loading method, fire extinguishing equipment, and safety confirmation of the vehicle, etc.
  - (i) A tank car or a motor vehicle loaded on the deck on which the tank car is loaded (excluding bicycles). by the method specified in the notification using a device that conforms to the standards specified in the notification.

- (ii) Do not load tank cars or tank trucks loaded with dangerous goods specified in the notification at the place specified in the notification.
- (3) In addition to the firefighting equipment stipulated in the Ship Fire Fighting Equipment Regulations (Ministry of Transport Ordinance No. 37 of Showa 40), the equipment shall be equipped with a fire extinguishing device specified in the notification.
- (iv) Prepare a Hazard Prevention Measures Handbook that describes the matters stipulated in the notification, and confirm safety in accordance with it.

### Section 3 Requirements for Vessels Carrying Dangerous Goods

(Measures for Fire Prevention, etc.)

Article 37 Dangerous goods (excluding substances that are susceptible to the transmission of diseases and poisons, radioactive materials, etc.) The same shall apply hereinafter in this section. Cargo area (excluding the area where dangerous goods are loaded in bulk). The same shall apply hereinafter in this section. (Small vessels (vessels of less than 20 gross tonnage that are not engaged in international voyages). Excludes. The same shall apply hereinafter in this Article and the following Article. Fire prevention, fire detection and extinguishing measures (hereinafter referred to as "fire prevention measures, etc.") specified in Appendix 1 and Appendix 2 according to the classification or item of dangerous goods to be carried and the type of cargo area in which the dangerous goods are loaded. ) must be taken. However, the director of the regional transport bureau that has jurisdiction over the location of the vessel (for vessels located outside Japan, the director of the Kanto Transport Bureau. The same shall apply hereinafter. This does not apply if it is recognized that it is safe for safety.

2. Ships with cargo areas for bulk loading of dangerous goods that can be carried in bulk on ships other than passenger ships pursuant to the provisions of Article 13 shall be subject to fire prevention and other measures as set forth in Schedule 3. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

(Certificate of Conformity for Dangerous Goods Carriers)

Article 38 The Director of the Regional Transport Bureau having jurisdiction over the location of the ship shall conduct an inspection under Article 5 of the Ship Safety Act (Act No. 11 of Showa 8) (in the case of a ship referred to in Article 8 of the same Act, a classification society (refers to a classification society registered under the same Article). The same shall apply hereinafter. Dangerous goods that can be transported on a vessel that complies with the requirements of the preceding Article (in the case of a ship referred to in paragraph (1) of the same Article, it means dangerous goods other than substances that are

susceptible to the transmission of diseases and radioactive materials, etc., and in the case of a ship referred to in paragraph (2) of the same Article, it means dangerous goods that can be transported in bulk on a vessel other than a passenger ship in accordance with the provisions of Article 13). The same shall apply hereinafter in this Article. The classification or item and the place of loading of the dangerous goods shall be specified, and a certificate of conformity for the dangerous goods carrier (Form No. 1) shall be issued.

2. When transporting dangerous goods, the master must keep a certificate of conformity for the dangerous goods carrier on board.
3. The master shall not transport dangerous goods by a vessel that has not been issued a certificate of conformity for transporting dangerous goods.
4. The master shall carry dangerous goods in accordance with the conditions specified in paragraph (1).
5. The conformity documents for the carriage of dangerous goods issued to foreign vessels by the foreign government specified in the notification shall be deemed to be the conformity certificate for the dangerous goods transport vessels provided for in paragraph (1).
6. Owners of vessels engaged in international voyages may be issued an English translation of the Certificate of Conformity for Dangerous Goods Carriers.

(Application for issuance of Certificate of Conformity for Dangerous Goods Carriers)

Article 38-2 A person who intends to obtain a dangerous goods carrier conformity certificate for a vessel specified in Article 8 of the Ship Safety Act that does not require inspection as stipulated in Article 48-5 of the Ordinance for Enforcement of the Ship Safety Act shall submit an application for issuance of a certificate of conformity for a dangerous goods carrier (Form 1-2) to the director of the regional transport bureau having jurisdiction over the location of the ship.

2. The application for issuance of a Certificate of Conformity for a Dangerous Goods Carrier must be accompanied by the following documents (in the case of a vessel for which a Dangerous Goods Carrier Certificate of Conformity is issued for the first time, the documents listed in subparagraphs (1) and (3) and documents recording matters related to the inspection of the classification society):
  - (i) Ship Inspection Certificate and Ship Inspection Certificate (limited to vessels that have been issued). )
  - (ii) Certificate of conformity for dangerous goods carriers
  - (iii) Certificate to the effect that the ship has been registered for classification by the Classification Society(Validity Period of Certificate of Conformity for Dangerous Goods Carriers)

Article 39 The validity period of the Certificate of Conformity for Dangerous Goods Carriers shall be from the date of issuance to the date on which the validity period of the Ship Inspection Certificate expires.

2. Periodic inspections prescribed in Article 5, Paragraph 1, Item 1 of the Ship Safety Act prior to the expiration of the validity period of the previous Dangerous Goods Carrier Certificate (in the case of ships referred to in Article 8 of the same Act, inspections equivalent to periodic inspections conducted by the classification society in accordance with the provisions of the same Article). Hereinafter referred to as "periodic inspections, etc." in this article. In the event that a Certificate of Conformity for a Dangerous Goods Carrier is issued in accordance with the periodic inspection, etc., the validity period of the previous Certificate of Conformity for a Dangerous Goods Carrier shall be deemed to have expired.

(Extension of the validity period of the Dangerous Goods Carrier Conformity Certificate)

Article 40 The Director of the Regional Transport Bureau having jurisdiction over the location of the vessel may, upon application, extend the validity period of the Dangerous Goods Carrier Certificate of Conformity for the vessel within the validity period of the Ship Inspection Certificate extended pursuant to the provisions of Article 10, Paragraph 2 of the Ship Safety Act until the date specified by the Director-General of the Regional Transport Bureau. provided, however, that if the validity period of the Vessel Inspection Certificate expires before the date of the designation, the validity period of the Dangerous Goods Carrier Certificate shall be deemed to have expired.

2. A person who intends to make an application under the preceding paragraph must submit the Application for Extension of the Validity Period of the Dangerous Goods Carrier Conformity Certificate (Form No. 2) together with the Dangerous Goods Carrier Conformity Certificate and the Ship Inspection Certificate to the Director of the Regional Transport Bureau having jurisdiction over the location of the ship.

Article 40-2 Notwithstanding the provisions of Article 39, Paragraph 1, if the validity period of a ship inspection certificate is extended pursuant to the provisions of Article 10, paragraph (3) of the Ship Safety Act, the validity period of the ship's certificate of conformity for transporting dangerous goods shall be until the expiration date of the extended period of validity of the ship inspection certificate.

(Renewal of Certificate of Conformity for Dangerous Goods Carriers)

Article 41 In the event that the owner of a vessel intends to change the information contained in the Certificate of Conformity for Dangerous Goods Carriers, or if there is a change in the information on the Dangerous Goods Carrier Certificate of Conformity, the owner of the vessel shall promptly submit an application for replacement of the

Certificate of Conformity for Dangerous Goods Carriers (Form No. 3) to the Director of the Regional Transport Bureau having jurisdiction over the location of the vessel and have it rewritten.

2. The application for replacement of the Dangerous Goods Carrier Certificate of Conformity must be accompanied by a Dangerous Goods Carrier Certificate of Conformity.

(Reissuance of Certificate of Conformity for Dangerous Goods Carriers)

Article 42 In the event that the Dangerous Goods Carrier Conformity Certificate is lost or damaged, the shipowner may submit an application for reissuance of the Dangerous Goods Carrier Conformity Certificate (Form No. 4) to the Director General of the Regional Transport Bureau having jurisdiction over the location of the vessel and receive its reissuance.

2. The application for reissuance of the Dangerous Goods Carrier Conformity Certificate must include a Dangerous Goods Carrier Conformity Certificate (only in the case of damage). ) must be attached.
3. In the event that a Dangerous Goods Carrier Conformity Certificate is reissued due to the loss of the Dangerous Goods Carrier Conformity Certificate, the lost Dangerous Goods Carrier Conformity Certificate shall cease to be effective.

(Return of Certificate of Conformity for Dangerous Goods Carriers)

Article 43 In the following cases, the owner of a vessel shall promptly return the Certificate of Conformity for the Dangerous Goods Carrier (in the case of Item 3, the Certificate of Conformity for the Dangerous Goods Carrier found) to the Director of the Regional Transport Bureau having jurisdiction over the location of the ship.

- (i) When the vessel is lost, sunk or scrapped;
- (ii) When the vessel is no longer subject to the provisions of Article 2 of the Ship Safety Act.
- (iii) When the vessel is no longer used for the carriage of dangerous goods.
- (4) When the validity period of the Dangerous Goods Carrier Conformity Certificate has expired.
- (5) When the Dangerous Goods Carrier Conformity Certificate is found after the Dangerous Goods Carrier Conformity Certificate has been reissued due to the loss of the Dangerous Goods Carrier Conformity Certificate.

(Fee)

Article 44 Issuance of a Certificate of Conformity for Dangerous Goods Carriers (limited to applications pursuant to the provisions of Article 38-2, Paragraph 1) A person who intends to receive a rewrite or re-issuance or an English translation of the Certificate of Conformity for Dangerous Goods Carriers shall be charged 1,700 yen (Act on the Promotion of Public Administration Utilizing Information and Communication

Technology (Act No. 151 of 14). In Article 114, it is referred to as the "Information and Communication Technology Utilization Act". In the case of an application for delivery, rewriting, or reissuance using the electronic information processing organization prescribed in the same paragraph pursuant to the provisions of Article 6, Paragraph 1, a fee of 1,500 yen (1,500 yen) must be paid.

2. The fee set forth in the preceding paragraph shall be paid by attaching a revenue stamp equivalent to the amount of the fee to the fee payment slip (Form No. 5).

(Measures for Disaster Prevention, etc.)

Article 45 Nuclear fuel materials (nuclear fuel materials stipulated in Article 3, Item 2 of the Atomic Energy Basic Act (Act No. 186 of Showa 30)) among radioactive materials, etc.) The same shall apply hereinafter. or radioactive transport as defined in Article 71, Paragraph 1, Item 1 of Article 71 (limited to those listed in each of the following items): For vessels carried in accordance with the type of cargo specified in Appendix 4, measures for disaster prevention and radiation measurement and disaster countermeasures specified in the same table (hereinafter referred to as "disaster prevention measures, etc.") shall be implemented. ) must be taken. However, this does not apply if the Minister of Land, Infrastructure, Transport and Tourism deems it safe to do so.

(i) BM-type goods referred to in Article 75;

(ii) BU-type goods referred to in Article 76;

(iii) Fissile transports referred to in Article 71, paragraph (1), item (ii);

(iv) Items in which radioactive materials, etc., specified in the notification referred to in Article 87, paragraph (1) are stored or packaged.

#### Section 4 Explosives

(Containers and packaging used for transporting explosives)

Article 46 In the case of transporting explosives, the shipper shall comply with the provisions of Article 8, paragraph (1) and the standards prescribed in the notification regarding the structure and performance of the containers and packaging.

(Restrictions on lighting and tools)

Article 47 When loading and unloading explosives, no lighting other than electric lamps shall be used.

2. In places loaded with explosives, no lighting other than explosion-proof flashlights shall be used.

3. No person shall be in possession of matches, bare iron tools, or other items that are likely to emit sparks, or shall wear any item with an iron rod on them, at or near the place where explosives are loaded or loaded.

(Restrictions on the handling of fire)

Article 48 Smoking and fire shall not be handled in or near places where explosives are loaded or loaded. However, this does not apply if the master deems these acts to be particularly necessary and has taken sufficient measures to prevent danger.

2. The master must place a sign stating that smoking or the handling of fire is prohibited in the place referred to in the main text of the preceding paragraph.

(Restrictions on construction, etc.)

Article 49 The construction of powder magazines, holds, decks, storehouses, and other places where explosives are to be loaded or loaded shall be completed before the loading of explosives.

2. When loading explosives, the place where explosives are loaded must be cleaned in advance.
3. Sufficient measures shall be taken in advance to ensure that cargo, equipment, etc., located in places where explosives are loaded or loaded may pose a danger to explosives due to movement, falling, impact, friction, etc.
4. When loading and unloading explosives, the necessary preparations for firefighting must be completed in advance.

5. Explosives shall not be handled carelessly, such as throwing, dropping, or rolling.

(Method of loading explosives)

Article 50 When transporting explosives, the master of the vessel shall, in addition to the provisions of this Ministerial Ordinance, comply with the standards prescribed in the notification regarding the loading method.

(Powder magazine)

Article 51 A powder magazine shall be an open powder magazine.

2. The powder magazine referred to in the preceding paragraph shall conform to the standards specified in the notification regarding its structure and performance.

(Locking, etc.)

Article 52 The entrances and exits of the hold or compartment of the ship or the opening and closing doors of the explosives magazine shall be locked or other measures shall be taken to prevent persons other than persons concerned from entering.

(Indication of powder magazine)

Article 53 Powder magazines (limited to powder magazines on ships not manned by seafarers under the Seafarers Act) In an easy-to-see place on the outer surface, "Powder magazine" and "Fire strictly prohibited" shall be signed.

Section 5 High-pressure gas

(Containers and packaging used for transporting high-pressure gases)

Article 54 In the case of transporting high-pressure gas, the shipper shall comply with the provisions of Article 8, Paragraph 1 and the standards

specified in the Notification with respect to the structure and performance of the containers and packaging.

(Filling)

Article 55 No high-pressure gas shall be filled or refilled on board a ship.

2. When transporting high-pressure gas, the shipper shall comply with the standards specified in the notification regarding the method of filling and the use and handling of the container.

(Loading method of high-pressure gas)

Article 56 In the case of transporting high-pressure gas, the master shall comply with the provisions of Article 20, Paragraph 1 and the standards prescribed in the notification regarding the loading method.

(Electrical Equipment)

Article 57 If there is an electrical circuit terminal in the hold or compartment of a vessel carrying flammable high-pressure gas, the electrical circuit shall be cut off from the power supply before loading and shall not be connected to the power supply until the flammable gas in the hold or compartment has been exhausted. provided, however, that this shall not apply if the electrical appliances installed in the hold or compartment are explosion-proof.

2. In the hold or compartment of a vessel loaded with flammable high-pressure gas, no lighting other than explosion-proof flashlights and mobile lights shall be used. In this case, the terminals of the moving lights must be mounted on the exposed deck.

(Mutatis mutandis)

Article 58 The provisions of Article 47, paragraph (3) and Article 48 shall apply mutatis mutandis to flammable high-pressure gases.

#### Section 6 Flammable Liquids

(Loading method of flammable liquids)

Article 59 In the case of transporting flammable liquids, the master shall comply with the provisions of Article 20, Paragraph 1 and the standards prescribed in the notification regarding the method of loading such liquids.

(Mutatis mutandis)

Article 60 The provisions of Article 47, paragraph (3) and Article 57 shall apply mutatis mutandis to flammable liquids with a flash point of less than 23 degrees Celsius.

2. The provisions of Article 48 shall apply mutatis mutandis to flammable liquids.

#### Section 7 Flammable Substances

(Containers and packaging used for transporting flammable materials)

Article 61 In the case of transporting flammable materials, the shipper shall comply with the provisions of Article 8, Paragraph 1 and the

standards prescribed in the Notification regarding the structure and performance of the containers and packaging.

Article 62 In the case of transporting flammable materials specified in a notification in a portable tank, the shipper shall in advance write stating the following matters: Documents proving that there is no risk of dangerous chemical action due to the interaction between the structural members of the portable tank and the flammable materials to be stored, as well as documents relating to the design of the pressure safety device installed in the portable tank, shall be submitted to the nearest Regional Transport Directorate for approval.

(i) the name and address of the shipper;

(ii) the name of the combustible material to be transported and the UN number;

3. Other matters that may be used as a reference

(Method of loading flammable materials)

Article 63 In the case of transporting flammable materials, the master shall comply with the provisions of Article 20, Paragraph 1 and the standards prescribed in the notification regarding the loading method.

(Mutatis mutandis)

Article 64 The provisions of Article 48 shall apply mutatis mutandis to flammable substances.

#### Section 8 Oxidizing Substances

(Containers and packaging used for transporting oxidizing substances)

Article 65 In the case of transporting oxidizing substances, the shipper shall comply with the provisions of Article 8, Paragraph 1 and the standards specified in the Notification regarding the structure and performance of the containers and packaging.

(Loading method of oxidizing substances)

Article 66 In the case of transporting oxidizing substances, the master shall comply with the provisions of Article 20, Paragraph 1 and the standards prescribed in the notification regarding the method of loading them.

(Cleaning before and after loading and unloading)

Article 67 When the landing of oxidizing substances has been completed, the place where the oxidizing substance was loaded shall be checked for contamination by the oxidizing substance, and if contamination is found, the place shall be cleaned.

2. The provisions of paragraph (2) of Article 49 shall apply mutatis mutandis to oxidizing substances.

(Mutatis mutandis)

Article 68 The provisions of Articles 48 and 62 shall apply mutatis mutandis to organic peroxides.

#### Section 9 Poisons

(Method of loading poisonous substances)

Article 69 In the case of transporting poisonous substances, the master shall comply with the provisions of Article 20, paragraph (1) and the standards prescribed in the notification regarding the method of loading such substances.

(Mutatis mutandis)

Article 70 The provisions of Article 47, paragraph (3), Article 48 and Article 57 shall apply mutatis mutandis to poisonous substances with a flash point of less than 23 degrees Celsius.

2. The provisions of paragraph (1) of Article 67 shall apply mutatis mutandis to poisonous substances.

Section 10 Radioactive Materials, etc.

(Terminology, etc.)

Article 71 In this section, the following terms shall have the meanings set forth in each of the following items:

(i) "Radioactive transport" means a radioactive material in which it is stored or packaged in a container.

(ii) Fissile transport means a radioactive transport that contains or packages radioactive materials specified in the notification as particularly necessary for measures to prevent criticality.

(iii) Dedicated loading Large container (refers to a container that is non-open and has a volume exceeding 3,000 liters) The same shall apply hereinafter in this section. A cargo or container to be loaded is from a shipper, and the cargo handling and handling of the cargo or container in transit are carried out at the direction of the shipper or consignee.

2. In this section, the term "tank" means a tank that does not form part of the hull.

3. The provisions concerning shippers in the case of transporting radioactive materials, etc., in containers, etc., stipulated in this section shall apply to the shipowner when the shipowner stores radioactive materials, etc. in containers.

(Types of radioactive transports)

Article 72 Radioactive transports shall be L-type transports, A-type transports, BM-type transports, BU-type transports, IP-1 type transports, IP-2 type transports and IP-3 type transports.

(Technical Standards for Radioactive Transports)

Article 72-2 When transporting radioactive goods, the shipper shall ensure that the radioactive transport complies with the provisions of Articles 79 to 81 and 82, taking into account the changes over time of the radioactive transport.

(L-shaped transport)

Article 73 L-type goods shall conform to the following items:

- (1) The structure shall be free of unnecessary protrusions so that it can be handled easily and safely, and the cargo handling equipment shall be sufficiently strong against sudden lifting.
- (2) In the event of contamination by radioactive materials, the structure shall be such that the contamination of the surface can be easily removed.
- (3) There is no risk of cracking, breakage, etc. due to changes in temperature and internal pressure expected during transportation, vibration, etc.
- (iv) There is no risk of dangerous physical or chemical effects due to the interaction between the structural members of the container or between the structural members of the container and radioactive materials.
- (5) Appropriate measures have been taken to prevent the valve of the container from being operated unnecessarily.
- (6) In the case where radioactive materials, etc., specified in the notification are stored or packaged, the word "radioactive" or "radioactive" shall be displayed in a position that is easily visible when opened. However, if it is difficult to display the character at the position, it can be displayed at a position that is easy to see on the surface.
- (vii) The maximum value of the dose equivalent rate specified in the notification on the surface (hereinafter referred to as the "maximum dose equivalent rate"). does not exceed 5 microsieverts per hour.
- (8) The radioactive surface density of the radioactive material on the surface does not exceed the density specified in the notification.
- (9) In the case of storing fissile material specified in the notification, each side of the circumscribed cuboid shall be 100 millimeters or more.
10. Documents and other items necessary for the use of radioactive materials, etc. (limited to those that are not likely to impair the safety of radioactive transported materials) Items other than the above are not stored or packaged.

(Type A transport)

Article 74 Type A transported goods shall conform to items (1) to (5), (8) and (10) of the preceding Article, and shall conform to each of the following items:

- (i) Each side of the circumscribed cuboid shall not be less than one hundred millimeters.
- (ii) The components of the container are not likely to crack or break due to changes in temperature from 40 degrees Celsius below zero to 70 degrees Celsius. However, this does not apply if the expected change in temperature during transportation can be identified.

- (3) There is no leakage of radioactive materials at an external pressure of 60 kilopascals (absolute pressure).
- (4) In the case where liquid radioactive materials are stored, the following standards shall be met:
- (b) A sealing device consisting of an absorbent material or a double sealing part capable of absorbing more than twice the amount of radioactive materials, etc. (refers to a component of a container that has been sealed to prevent leakage of radioactive materials, etc.). The same shall apply hereinafter in this section. ) must be provided. provided, however, that if the radioactive material has an amount of radioactivity that does not exceed the amount specified in the notification, it shall be confirmed as a BM-type transport or a BU-type transport pursuant to the provisions of Article 87, paragraph (1) (including confirmation pursuant to the provisions of paragraph 7 of the same Article). This does not apply if it is stored in a container used for radioactive transport that has been subjected to radioactive transport or in a container used for radioactive transport that has been recognized by the government of a foreign country as conforming to the laws and regulations of the country concerning BM-type or BU-type transported goods specified in the notification.
- (b) An appropriate space shall be maintained inside the container so that it can adequately withstand the effects of changes in temperature, agitation, etc., of radioactive materials, etc., and changes in internal pressure at the time of injection.
- (5) Measures such as gluing a seal that cannot be easily broken shall be taken so that it will not be opened unnecessarily, and if it is opened, it will be revealed.
- (6) The maximum dose equivalent rate at the surface does not exceed 2 millisieverts per hour and the maximum dose equivalent rate at a distance of 1 meter from the surface is 100 microsieveverts per hour (except in the case of carriage by special loading in tanks or non-open containers, when used as containers); The value obtained by multiplying the maximum dose equivalent rate at a distance of one meter from the surface in microsieveverts per hour by the coefficients listed in the lower column of the following table according to the classification of the maximum cross-sectional area of the tank or non-open container listed in the upper column of the following table shall not exceed 100).

If it is less than 1 square meter	one
More than 1 square meter and less than 5 square meters	two
More than 5 square meters and less than 20 square meters	three

If it exceeds 20 square meters	ten
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- (7) If it is to be placed under the conditions specified in the notification, it must meet the following criteria:
  - (b) There is no leakage of radioactive materials.
  - (b) There is no significant increase in the maximum dose equivalent rate at the surface, and the maximum dose equivalent rate does not exceed 2 millisieverts per hour.
- (8) In the case where liquid or gaseous radioactive materials, etc., are stored, there shall be no leakage of radioactive materials when placed under the conditions specified in the notification.

(BM type transport)

Article 75 BM-type transported goods shall be subject to Article 73 (1) to (5), (8) and (10), as well as (1) to (6) of the preceding Article (excluding the part pertaining to item (4)(a)). and shall conform to the following.

- (i) There is no risk of cracking, breakage, etc., due to changes in ambient temperature from the minimum temperature expected during transportation to 38 degrees Celsius.
- (ii) If it is to be placed under the conditions specified in the notification, it must meet the following criteria.
  - (b) Requirements of Item 7 (b) of the preceding Article
  - (b) The amount of leakage of radioactive materials per hour does not exceed the amount specified in the notification.
  - (c) The temperature of the surface shall not exceed 50 degrees Celsius in the shade (85 degrees Celsius in the case of radioactive transports transported by special loading, on a surface that can be easily approached by persons during transportation (in the case of radioactive transports with a proximity barrier on the surface, the surface of the proximity barrier)).
  - (d) The radioactive surface density of the radioactive material on the surface does not exceed the density specified in the notification referred to in Article 73, paragraph (8).
- (3) If it is to be placed under the conditions specified in the notification, it must meet the following criteria.
  - (b) The maximum dose equivalent rate at a distance of one meter from the surface does not exceed 10 millisieverts per hour.
  - (b) The amount of radioactive material leaked per week does not exceed the amount specified in the notification.
- (4) In the case of radioactive transport containing an amount of radioactivity exceeding the amount specified in the notification, there shall be no damage to the sealing device when placed under the conditions specified in the notification.

(BU type transport)

Article 76 BU-type goods shall be subject to Article 73 (1) to (5), (8) and (10), and Article 74 (1) to (6) (excluding the proviso to subparagraph (2) and the part pertaining to subparagraph (4)(a)). In addition, it must conform to items 2 to 4 of the preceding article, and must conform to each of the following items.

- (1) There is no risk of cracking, breakage, etc., due to changes in the ambient temperature from 40 degrees Celsius to 38 degrees Celsius.
- (ii) The structure shall be such that the internal gases are filtered or radioactive materials are cooled without the use of filters or mechanical cooling devices.
- (iii) Maximum operating pressure (the maximum pressure of gas generated in the sealing device of the radioactive transport in one year when no exhaust, cooling or other special measures are taken for the radioactive transport under the conditions of temperature expected during transportation and direct sunlight on the radioactive transport). ) does not exceed 700 kilopascals.

(IP-1 type shipments)

Article 77 IP-1 type transports shall comply with Article 73 (1) to (5) and (8) and Article 74 (1) and (6).

(IP-2 type transport)

Article 78 IP-2 type transported goods shall conform to the standards set forth in Article 74, paragraph (7) if they conform to the preceding Article and are placed under the conditions specified in the notification.

2. Notwithstanding the provisions of the preceding paragraph, tanks, non-open containers, or IBC containers (limited to metal containers) shall not be used. The same shall apply hereinafter in this section. In the case of IP-2 type transported goods that are used as containers, the standards specified in the notification can be followed.

(IP-3 type transport)

Article 79 IP-3 type goods shall comply with Article 77 and the following items:

- (i) Article 74(2) to (5) (excluding the part pertaining to subparagraph (4)(a)); Conform to the criteria of the following.
  - (ii) If it is to be placed under the conditions specified in the notification, it shall conform to the criteria referred to in Article 74(7).
2. Notwithstanding the provisions of the preceding paragraph, in the case of IP-3 type goods in which tanks, non-open containers, or IBC containers are used as containers, the standards stipulated in the notification in paragraph (2) of the preceding Article may be followed.  
(Transportation of Radioactive Materials, etc.)

Article 80 The shipper shall not transport radioactive materials, etc., unless they are classified as radioactive transports listed in each of the following items.

- (i) Radioactive materials that are designated by notification as extremely low hazardous radioactive materials, etc. L-type transported goods
- (ii) Radioactive materials, etc. having an amount of radioactivity not exceeding the amount specified in the notification (excluding those listed in the preceding item). Type A Shipments
- (iii) Radioactive materials, etc. with an amount of radioactivity exceeding the amount specified in the notification in the preceding item (excluding those listed in Item 1). BM type transport or BU type transport

2. Notwithstanding the provisions of the preceding paragraph, low-specific radioactive materials (radioactive materials with low radioactivity concentrations, etc., which are specified in the notification as having low risk) The same shall apply hereinafter. or surface contaminants (solids other than radioactive substances whose surface is contaminated by radioactive materials, as specified in the notification). The same shall apply hereinafter. For each category specified in the notification, **it can be transported as an IP-1 type transport, an IP-2 type transport, or an IP-3 type transport, respectively.**

(Fissile transport)

Article 81 Fissile transports shall conform to Article 74(1) and (5), Article 75(1) and any of the following items:

- (i) Conform to the following (a) and (b):
  - (b) If it is to be placed under the conditions specified in the notification, it must meet the following standards.
    - (1) There shall be no indentation in the component parts of the fissile transport that would encompass a cube with a side of 100 millimeters.
    - (2) Each side of the circumscribed cuboid shall not be less than one hundred millimeters.
  - (b) It must not reach criticality in the case specified in the notification.
- (ii) Radioactive materials, etc., specified in the notification (hereinafter referred to as "fissile nuclides"). The sum of the masses of the substances specified in the notification as affecting the criticality of the nuclear fissile nuclide does not exceed the sum of the masses of the fissile nuclides, and conforms to any of the following:
  - (b) The value of the critical safety index calculated pursuant to the provisions of Article 91, paragraph (3), item (ii) does not exceed ten.

(b) Conform to the following criteria:

(1) Each side of the circumscribed cuboid shall be at least 300 millimeters.

(2) Under the conditions set forth in the notification in the preceding item, there shall be no indentation in the component parts of the fissile transport that would encompass a cube with a side of one hundred millimeters, and each side of the circumscribed cuboid shall not be less than three hundred millimeters.

(3) The value of the critical safety index calculated pursuant to the provisions of Article 91, paragraph 3, item 2 does not exceed 10.

(c) Conform to the following criteria:

(1) Under the conditions set forth in the notification in the preceding item, there shall be no indentation in the component parts of the fissile transport that encompasses a cube with a side of 100 millimeters, and each side of the circumscribed cuboid shall not be less than 100 millimeters.

(2) The total mass of fissile nuclides does not exceed fifteen grams.

(iii) The mass of plutonium shall not exceed 1,000 grams and shall conform to the following standards:

(b) The ratio of the mass of the fissile nuclide to the mass of plutonium shall not exceed twenty per cent.

The ratio of the mass of rouranium to the mass of plutonium does not exceed one hundredth.

(Radioactive transport containing uranium hexafluoride)

Article 82 Among the radioactive transports, those containing uranium hexafluoride shall comply with the following items:

(i) Enclosed in such a way that the space inside the transport is not less than 5 percent of the volume of the transport at the maximum temperature expected at the time of enclosing or retrieval.

(ii) At the time of transportation, the uranium hexafluoride stored in the container shall be in a solid form and shall be sealed so that the inside of the transported object is always below atmospheric pressure.

2. Among the radioactive transports, those containing uranium hexafluoride in excess of the amount specified in the notification must comply with the following items in addition to the standards set forth in the preceding paragraph.

(i) If it is to be placed under the conditions specified in the notification, it must meet the following criteria.

(b) There is no leakage of radioactive materials.

(b) No significant stress is generated.

(c) There is no damage to the valve.

(d) There is no damage to the sealing device. However, this does not apply to radioactive transports containing uranium hexafluoride

weighing 9,000 kilograms or more and that the Minister of Land, Infrastructure, Transport and Tourism deems appropriate.

(ii) There shall be no pressure relief device.

(Radioactive transports containing radioactive materials with secondary hazards)

Article 83 Radioactive transported materials that contain radioactive materials, etc., which have the danger of hazardous materials other than radioactive materials as a secondary hazard, shall be in accordance with the provisions of Articles 73 to the preceding Article, as well as in accordance with the standards for containers for dangerous goods other than radioactive materials, etc., in accordance with the provisions of this Ministerial Ordinance.

2. In addition to the provisions of the preceding paragraph, radioactive transports containing radioactive materials that have the danger of pyrophoric substances as a secondary hazard must be either A-type transports, BM-type transports, or BU-type transports with an inert inside.

(Carriage of Fissile Transport)

Article 84 The shipper shall not carry fissile transport unless it is a radioactive transport as provided for in Article 80 and a fissile transport as provided for in Article 81.

(Measures such as locking of radioactive transport)

Article 85 Radioactive transports containing or packaging radioactive materials, etc., specified in the notification, shall be locked, sealed, and other measures shall be taken to prevent the radioactive transport from being easily opened.

2. The shipper shall not carry the radioactive goods referred to in the preceding paragraph unless the measures set forth in the preceding paragraph have been taken.

(Confirmation of the safety of radioactive transports, etc.)

Article 86 A person who stores or packages radioactive materials, etc., in containers to make them radioactive transport (hereinafter referred to as "radioactive transporter") In the case of obtaining confirmation pursuant to the provisions of Paragraph 1 of the following Article, the design of the radioactive transport to be confirmed (refers to the design of the container and the specifications of the radioactive materials to be stored in the container). The approval of the Minister of Land, Infrastructure, Transport and Tourism must be obtained in advance.

Article 87 The creator of radioactive transports shall dispose of radioactive materials, etc., in BM-type transports, BU-type transports, and fissile transports (limited to those that meet the standards set forth in Article 81, Item 1). or radioactive transports (limited to those in which radioactive materials, etc. specified in the notification are stored or packaged). In this case, the Minister of Land, Infrastructure,

Transport and Tourism (using containers approved pursuant to the provisions of paragraph 1 of the following Article shall be used to determine whether the radioactive transport conforms to the standards of Article 75 or Article 76, conforms to the standards of Article 81, conforms to the standards of Article 82, or conforms to the standards of Article 85, paragraph (1) before shipping. BM type transport, BU type transport, fissile transport, or radioactive transport (limited to those in which the radioactive material specified in the notification is stored or packaged). In this case, the Director of the Regional Transport Bureau having jurisdiction over the place of loading of the radioactive transport. The same applies to paragraphs 4 to 6. It must be confirmed.

(i) Uranium and its compounds (limited to those in which the ratio of the sum of the amount of uranium-233 and the amount of uranium-235 to the total amount of uranium does not exceed 20 percent); )

(ii) Uranium dioxide (limited to those in which the ratio of the sum of the amount of uranium-233 and the amount of uranium-235 to the total amount of uranium does not exceed 20 percent); Fuel body (excluding spent fuel) )

(3) Spent fuel (limited to fuel that does not allow leakage of radioactive materials from the cladding material) )

4. Radioactive materials other than fissile materials, etc.

2. Confirmation pursuant to the provisions of the preceding paragraph may be carried out by having the creator of the radioactive transport submit the relevant documents and examining the documents if any of the following items apply.

(i) When a document certifying that the fissile transport conforms to the standards set forth in the preceding paragraph prepared by a person deemed appropriate by the Minister of Land, Infrastructure, Transport and Tourism is submitted.

(ii) When an inspection is carried out on radioactive materials, etc., pertaining to radioactive transports other than fissile transports as provided for in Article 111, paragraph (1) or Article 112, paragraph (1);

(3) When radioactive materials, etc. are classified as radioactive transported in places other than Japan based on foreign regulations deemed appropriate by the Minister of Land, Infrastructure, Transport and Tourism

3. Confirmation pursuant to paragraph (1) shall be carried out by confirming that the use of the radioactive transport is in a container approved pursuant to the provisions of paragraph (1) of the following Article, if the radioactive transport is to be used in a container approved pursuant to the provisions of the same paragraph. However, this does not apply when it is recognized that there is a risk that the

performance of the container may be hindered due to insufficient maintenance and inspection.

- (4) The Minister of Land, Infrastructure, Transport and Tourism may give necessary instructions to the preparer of the radioactive transport referred to in paragraph (1) to ensure the safety of the transportation of the radioactive transport.
5. Unless the shipper himself is the shipper, the preparer of the radioactive transport who has received confirmation pursuant to paragraph (1) shall, unless he or she is the shipper, promptly deliver to the shipper a document certifying the confirmation, a copy of the document submitted to the Minister of Land, Infrastructure, Transport and Tourism at the time of such confirmation, and other documents stating precautions regarding the handling of the radioactive transport.
6. The provisions of the preceding paragraph shall apply mutatis mutandis to the case where the creator of the radioactive transport material receives instructions pursuant to the provisions of paragraph (4). In this case, in the preceding paragraph, the phrase "documents certifying the confirmation and copies of the documents submitted to the Minister of Land, Infrastructure, Transport and Tourism at the time of such confirmation" shall be read as "documents describing the contents of the instructions."
7. Confirmation of the Nuclear Regulation Authority pursuant to Article 59, Paragraph 2 of the Act on the Regulation of Nuclear Source Materials, Nuclear Fuel Materials and Nuclear Reactors (Act No. 166 of Showa 32) or Confirmation of Transported Objects under Article 18, Paragraph 2 of the Act on the Regulation of Radioactive Isotopes, etc. (Act No. 167 of Showa 32) or Article 194, Paragraph 2, Item 2 (c) of the Civil Aeronautics Act Enforcement Regulations (Ordinance No. 56 of the Ministry of Transport of Showa 27), (d) or (f) (limited to those related to technical standards for radioactive transports) When confirmed by the Minister of Land, Infrastructure, Transport and Tourism pursuant to the provisions of the above (except as specified in the notification). shall be deemed to have received confirmation pursuant to the provisions of paragraph (1).
- Article 88 Owners of containers used for the transportation of radioactive materials, etc., including persons entrusted by the owner of such containers with the maintenance and management of such containers. The same applies to the next section. The container and its method of use may be approved in advance by the Minister of Land, Infrastructure, Transport and Tourism.
2. The Minister of Land, Infrastructure, Transport and Tourism may give instructions necessary to the owner of the container referred to in the preceding paragraph to maintain the performance of the container.  
(Dose equivalent rate for containers or overpacks, etc.)

Article 89 The shipper shall not use a container or overpack containing radioactive transport (limited to those in which radioactive transport is stored or packaged). The same shall apply hereinafter in this section. The maximum dose equivalent rate is on the surface (in the case of an open container, the surface of the radioactive transport being stored). The same shall apply hereinafter in this section. It shall not exceed 2 millisieverts per hour and 100 microsieverts per hour at a distance of 1 meter from the surface.

2. The shipper shall ensure that the radioactive surface density of the radioactive material on the surface of the container or overpack containing the radioactive material does not exceed the density specified in the notification referred to in paragraph (8) of Article 73.  
(Measures such as locking containers)

Article 90 The shipper shall take measures to prevent the container from being easily opened, such as locking and sealing, in the non-open container in which the radioactive materials, etc., specified in the notification referred to in paragraph (1) of Article 85 are stored.  
(Transportation Index and Critical Safety Index)

Article 91 The shipper shall calculate the index specified in each of the following items:

- (i) Radioactive transports (excluding L-type transports) The same shall apply hereinafter in this paragraph and in paragraphs 1, 4 and 6 of the following Article. ), overpack (excluding those in which only L-type transports are stored or packaged). The same shall apply hereinafter in this paragraph and in paragraphs 1 and 6 of the following Article. and containers in which radioactive transports are stored (excluding containers containing low-specific radioactive materials that are transported in accordance with the provisions of Article 100, Paragraph 1 and not as radioactive transports). Transportation index
  - (ii) Fissile transports, overpacks (limited to those in which fissile transports are stored or packaged). and containers containing fissile shipments. Critical Safety Index
2. The transportation index referred to in item (1) of the preceding paragraph shall be a numerical value determined in accordance with the provisions of each of the following items. In this case, if the value used in the determination specified in the notification is 0.05 or less, the value may be set to zero.
    - (i) In the case of radioactive transport, the value obtained by multiplying the maximum dose equivalent rate at a distance of one meter from the surface of the radioactive transport in millisieverts per hour by one hundred (in the case of radioactive transport in which tanks or non-open containers are used as containers, such value shall be in accordance with the classification of the maximum cross-sectional area of tanks or non-open containers listed in the upper column of the

following table). Each value obtained by multiplying by the coefficients listed in the lower column of the same table).

If it is less than 1 square meter	one
More than 1 square meter and less than 5 square meters	two
More than 5 square meters and less than 20 square meters	three
If it exceeds 20 square meters	ten

- (ii) In the case of an overpack, the value obtained by summing the values set forth in the preceding item for the radioactive transport contained in or packaged in the overpack. However, in the case of an overpack having a structure in which the outer shape is not easily deformed, the value obtained by multiplying the maximum dose equivalent rate at a distance of one meter from the surface of the overpack by a value expressed in millisieverts per hour by one hundred is multiplied by the coefficient listed in the lower column of the same table according to the classification of the maximum cross-sectional area of the overpack listed in the upper column of the table in the preceding item.
- (3) In the case of a container in which radioactive transport is stored, the value obtained by summing the values set forth in the preceding two items for the radioactive transport and overpack stored in the container, or the container (limited to non-open containers). The value obtained by multiplying the value expressed in millisieverts per hour by the value expressed in millisieverts per hour at a distance of 1 meter from the surface of the table by 100, and the value obtained by multiplying the coefficient listed in the lower column of the same table according to the classification of the maximum cross-sectional area of the non-open container listed in the upper column of the table in Item 1.
3. The critical safety index in Item 2 of Paragraph 1 shall be a numerical value determined in accordance with the following items: In this case, if the number of transport limits used in the determination is unlimited, the value can be set to zero.
- (i) Fissile transports (limited to those that conform to the criteria referred to in Article 81(1)); In this case, the number of transport limits specified in the notification (refers to the number determined as the limit on the number of fissile transports accumulated in one place). The value obtained by dividing by 50
- (ii) Fissile transports (limited to those that meet the criteria set forth in Article 81, subparagraph (2) or (3)); In this case, the value calculated according to the classification of fissile transports listed in the upper column of the following table by the formula specified in the lower column of the same table.

Classification of fissile transports	Formula
Pursuant to Article 81(2) (a)	$250 \times (\text{mass of uranium-235 (grams)} / A + B \text{ (grams)} / 280)$
Article 81(2) (b)	$100 \times (\text{mass of uranium-235 (grams)} / A+B \text{ (grams)} / 280)$
Article 81(2) (c)	$100 \times (\text{mass of uranium-235 (grams)} / 450 + B \text{ (grams)} / 280)$
Complying with Article 81(3)	Mass of plutonium / 10
<p>Remarks In the formulas in this table, the meanings of A and B are as follows.</p> <p>A Values specified in the notification according to the degree of enrichment of uranium-235</p> <p>B. Total mass of fissile nuclides, excluding those specified in the notification</p>	

(iii) In the case of an overpack, the value obtained by summing the values set forth in the preceding two items for the fissile transport stored in or packaged in the overpack.

(iv) In the case of a container containing fissile transport, the value obtained by summing the values set forth in the preceding three items for the fissile transport and the overpack stored in the container.

(Tags, etc.)

Article 92 The shipper shall affix the mark specified in the notification to each of the containers containing radioactive transport, overpacks or radioactive transports listed in the upper column of the following table to the place indicated in the lower column of the same table.

(i) Radioactive transport (excluding tanks or non-open containers used as containers); The same applies to the next and third items. or an overpack with a maximum dose equivalent rate of 5 microsieverts per hour or less on the surface and a transport index of zero.	Two locations on the surface of the radioactive transport or overpack
(ii) Radioactive transports or overpacks (excluding those listed in the preceding item) The maximum dose equivalent rate at the surface is not more than 500 microsieverts per hour, and the transport index does not exceed 1	Two locations on the surface of the radioactive transport or overpack

<p>(iii) Radioactive transports or overpacks other than the radioactive transports or overpacks listed in the preceding two items.</p>	<p>Two locations on the surface of the radioactive transport or overpack</p>
<p>(iv) Tanks or non-open containers used as containers for radioactive transport (excluding tanks containing low-specific radioactive materials, etc., which are transported without radioactive transport pursuant to the provisions of Article 100, Paragraph 1, or non-open containers); The same shall apply hereinafter in this item to item 7. or the surface of the container in which the radioactive transport is stored, and the surface (in the case of an open container, the surface of the radioactive transport in which it is stored. The same applies to the upper column of the next issue. The maximum dose equivalent rate is 5 microsieverts per hour or less, and the transport index is zero.</p>	<p>Four points on the surface of the tank or on the four sides of the container</p>
<p>(v) Tanks or non-open containers used as containers for radioactive transport, or containers in which radioactive transports are stored (excluding those listed in the preceding item). The maximum dose equivalent rate at the surface is not more than 500 microsieverts per hour, and the transport index does not exceed 1</p>	<p>Four points on the surface of the tank or on the four sides of the container</p>
<p>(6) Tanks or containers other than those listed in the preceding two items</p>	<p>Four points on the surface of the tank or on the four sides of the container</p>
<p>(vii) Fissile transports, overpacks in which fissile transports are stored or packaged, and tanks or containers in which fissile transports are stored;</p>	<p>Places adjacent to the tags attached by any of the preceding items</p>

2. The shipper shall, on the radioactive transport, the name or name and address of the shipper or consignee, and the name of the radioactive

material stored (excluding L-type transports) be printed in an easily visible place on the surface. ), total mass (limited to those with a total mass of more than 50 kilograms. In addition to the container identification number specified in the notification, the characters indicating the type of radioactive transport specified in each of the following items shall be clearly displayed according to the classification of radioactive transported materials.

- (i) Type A transported goods: the letters "Type A" or the letters "TYPE A"
- (ii) BM-type transported goods: the letters "BM type" or the letters "TYPE B (M)".
- (iii) BU-type transported goods: the letters "BU type" or the letters "TYPE B (U)"
- (iv) IP-1 type transported goods: "IP-1 type" or "TYPE IP-1" characters
- (v) IP-2 type transported goods: "IP-2 type" or "TYPE IP-2" characters
- (vi) IP-3 type transported goods: the letters "IP-3 type" or the letters "TYPE IP-3"

3. The shipper shall clearly indicate on the outermost surface of the container or packaging of the radioactive transport that the container or packaging of the radioactive transport is fire- and water-resistant, as specified in the notification, and which is fire- and water-resistant.
4. The shipper shall affix such signs as specified in the notification on the four surfaces of the tank or on the four sides of the large container that are used as containers for radioactive transports or in which radioactive goods are stored.
5. In lieu of the signs referred to in the preceding paragraph, the shipper may affix the tags referred to in Item 4, Item 5 or Item 6 of the Table referred to in paragraph (1) by enlarging them to the dimensions of the sign. In this case, notwithstanding the provisions of paragraph (1), the shipper is not required to affix the tag set forth in Item 4, Item 5 or Item 6 of the Table of the same paragraph.
6. In the event that a radioactive shipment containing only radioactive materials with the same product name is stored in the same large container and transported by special loading, the shipper shall display the UN number of the radioactive material on the large container in accordance with the standards specified in the notification.
7. The shipper shall indicate on the overpack the name or designation and address of the shipper or consignee in a visible place on the surface of the overpack. provided, however, that this shall not apply if the name and address of the shipper or consignee displayed on the individual radioactive goods stored or packaged in the overpack can be easily confirmed from the outside.

Article 93 The provisions of Article 9 shall apply to the labels of radioactive transports referred to in paragraph (1) of the preceding

Article, the indications in paragraph (2) of the same Article, the indications in paragraph (3) of the same Article, and the labels referred to in paragraph (5) of the same Article (radioactive transports (excluding L-type transports). Limited to tanks or large containers that are used as containers. It applies mutatis mutandis to the above. (Loading method, etc.)

Article 94 When loading radioactive transports, overpacks, or containers containing radioactive transports, the following provisions shall be followed:

- (i) On-deck loading (except in the case of loading wind-tight containers in which radioactive transports are stored, limited to on-deck cover loading or on-deck indoor loading); It shall be loaded between decks or in the warehouse.
  - (ii) Take measures to prevent movement, falling, impact, friction, etc.
  - (3) Loading at a sufficient distance from other cargo so that safety during transportation is not impaired by heat caused by radioactive transported goods or overpacks. However, this does not apply when the average heat release rate of the surface does not exceed 15 watts per square meter and is mixed with other cargo other than bulk and bagging.
  - (4) Loading food at a distance from the place where it is loaded. However, this does not apply to L-type transports, overpacks in which only L-type transports are stored or packaged, and containers in which only L-type transports are stored.
  - (v) The dose of radiation received by the undeveloped photographic film on board the ship (as specified in the notification). The same shall apply hereinafter. ) should not exceed 0.1 millisievert.
  - (6) Radioactive transports specified in the notification are inhabited areas (refers to the residential areas stipulated in Article 2, Item 14 of the Ship Fire Prevention Structure Regulations). The same shall apply hereinafter. Do not load on the However, this does not apply if measures are taken to prevent radiation exposure or if the Minister of Land, Infrastructure, Transport and Tourism deems it appropriate.
  - (vii) The entrances and exits to the loading area of containers containing radioactive transport, overpacks, or radioactive transports shall be locked or otherwise shall be taken to prevent persons other than persons concerned from entering.
2. The carriage of fissile transports shall be carried out in such a way as not to pose a critical point in any case.
  3. When transporting radioactive transports, overpacks, or containers containing radioactive transports by special loading, the loading and unloading operations shall be carried out under the direction of the shipper or consignee who has sufficient capacity for the management of radioactive materials.  
(Loading limit)

Article 95 Radioactive transports or overpacks with a transport index of more than 10 or a critical safety index of more than 50 shall not be loaded. However, this does not apply when transporting by special loading.

(2) Containers containing radioactive transport with a transport index exceeding 50 or a critical safety index exceeding 50 shall not be loaded. However, dedicated loading (limited to dedicated loading in a certain area of the hold, compartment, deck, or for the purpose of dedicating the ship) The same shall apply hereinafter in this paragraph, the next paragraph and paragraph 5. This does not apply if it meets any of the following standards.

(i) Fissile transports are not stored.

(ii) In the case where fissile transports are stored, the critical safety index shall not exceed one hundred.

3. Radioactive transport to be loaded in a hold or compartment or in a certain area of a deck, except in an overpack or packaged or in an open container. ), overpacks (except those stored in non-open containers). and the sum of the transport indices or the total critical safety indices of non-open containers containing radioactive goods shall not exceed fifty (50). However, this does not apply if any of the following criteria are met.

(i) In the case of loading only radioactive goods or large containers containing radioactive goods in which large containers are used as containers in a certain area of the hold, compartment, or deck, and not transported by dedicated loading, the following standards shall be met:

(b) The total transport index for a certain area of the hold, compartment or deck does not exceed 200.

(b) the total critical safety index for a certain area of the hold, compartment or deck does not exceed fifty (50);

(ii) In the case of transporting radioactive transport, overpacks, or containers containing radioactive transported materials by special loading, one of the following standards must be satisfied:

(b) Do not carry fissile transports.

(b) In the case of loading fissile transports, the total critical safety index for a certain area of the hold, compartment or deck shall not exceed one hundred.

4. Radioactive transport on board a vessel (excluding those stored or packaged in overpacks or in non-open containers) ), overpacks (except those stored in non-open containers). and the sum of the transport indices or the total critical safety indices of non-open containers containing radioactive transports shall not exceed two hundred (or fifty in the case of loading on a vessel sailing only within the port of Huceon) per vessel. However, this does not apply if any of the following criteria are met.

- (i) Loading only radioactive goods for which large containers are used as containers or large containers containing radioactive transports;
  - (ii) Dedicated loading of containers containing radioactive transports, overpacks, or radioactive transports (limited to dedicated loading of vessels). In the case of carriage by the above, the total critical safety index shall not exceed 200 per vessel (100 in the case of loading on a vessel sailing only within the port of Kokawa).
5. Fissile transports, overpacks (limited to those in which fissile transports are packaged or stored) The same shall apply hereinafter in this paragraph and in Article 100, paragraph 11. or a container containing fissile transports at several locations on board the vessel (a collection of fissile transports, overpacks, or containers containing fissile transports in which the distance between the other fissile transports, other overpacks or other fissile transports is stored is less than six meters, with or without bulkheads or decks). The sum of their critical safety indices shall not exceed fifty (or one hundred in the case of carriage by dedicated loading) for each collection.
6. Low-specific radioactive materials, etc. (low-specific radioactive substances or surface contaminants) The same shall apply hereinafter. In the case of loading of IP-1 type transport, IP-2 type transport or IP-3 type transport in a hold or compartment or in a certain area of one deck, the total amount of radioactivity of such low-specific radioactive materials shall not exceed the amount specified in the notification.  
(Preparation of plan)

Article 96 In the case of transporting radioactive materials, etc., specified in a notification, the shipper shall, in advance consult with the consignee, the shipowner, and the master, prepare a plan stating matters necessary for the prevention of disasters caused by the theft of radioactive materials, etc., and submit it to the shipowner or the master before loading.

(Transportation manager, etc.)

Article 97 In the case of transporting radioactive materials, etc., specified in the notification of the preceding Article, the shipper shall be responsible for the transportation of radioactive materials, etc. (hereinafter referred to as the "person in charge of transportation"). Guards shall be assigned to take necessary measures to prevent disasters caused by the theft of radioactive materials, etc. provided, however, that in the case of transporting radioactive materials, etc., specified in the notification, it is not necessary to assign a watchman.

2. The person in charge of transportation must carry the plan set forth in the preceding Article during the transportation of radioactive materials, etc., as specified in the notification in the preceding Article.

3. The person in charge of transportation must have knowledge and experience in the measures necessary to prevent disasters caused by the theft of radioactive materials, etc.

(Establishment of a Liaison System)

Article 98 When transporting radioactive materials, etc., as specified in the notification referred to in Article 96, the shipper shall establish a communication system necessary to prevent disasters caused by the theft of radioactive materials, etc.

(Confirmation of safety of transportation, etc.)

Article 99 The master of a vessel shall approve BM-type transports, BU-type transports, fissile transports, and radioactive transports (limited to those in which radioactive materials, etc., specified in the notification referred to in Article 87, paragraph (1) are stored or packaged). In the case of transporting surface-contaminated materials specified in the notification in paragraph 1, item 3 of the following article, or in other cases specified in the notification, a transportation plan must be submitted to the Minister of Land, Infrastructure, Transport and Tourism before loading, and the Minister of Land, Infrastructure, Transport and Tourism must be confirmed that the method of transportation described in the transportation plan complies with the standards stipulated in this Ministerial Ordinance.

- (2) If, in conducting the confirmation referred to in the preceding paragraph, the Minister of Land, Infrastructure, Transport and Tourism deems it particularly necessary to ensure the safety of the carriage of the radioactive transported material, the Minister of Land, Infrastructure, Transport and Tourism may give necessary instructions to the shipowner or master regarding the structural equipment and cargo handling method of the vessel to be used.

(Low-specific radioactive materials that can be transported without radioactive transport, etc.)

Article 100 Notwithstanding the provisions of Article 80, the following low-specific radioactive materials, etc., may be transported without being transported as radioactive goods as provided for in the same Article:

- (i) Low-specific radioactive materials specified in the notification and that meet the following standards:

- (b) To be transported by special loading.

- (b) Measures have been taken to prevent the spread or leakage of radioactive materials under normal carriage conditions.

- (ii) Surface contaminants that are specified in the notification and conform to the following standards:

- (b) To be transported by special loading. However, this does not apply if the radioactive surface density of the radioactive material on the surface does not exceed the density specified in the notification.

- (b) Conform to the requirements of the preceding item (b).
- (3) Surface contaminants that are specified in the notification and conform to the following standards:
  - (b) To be transported by special loading.
  - (b) Conform to the requirements of subparagraph (1) (b).
  - (c) It must not be stacked.
  - (d) It must be properly secured.
  - (e) The radioactive surface density of the radioactive material on the surface does not exceed the density specified in the notification.
  - (f) The interior must be sufficiently dry.
- 2. In the case of transporting low-specific radioactive materials, etc., pursuant to the provisions of the preceding paragraph without being considered radioactive transport, the provisions of the following paragraphs to paragraph 15 shall be followed.
- 3. When transporting low-specific radioactive materials, etc., the shipper must calculate the transport index.
- 4. The transportation index referred to in the preceding paragraph shall be a numerical value determined in accordance with the provisions of the following items. In this case, if the value used in the determination specified in the notification is 0.05 or less, the value may be set to zero.
  - (1) Low-specific radioactive materials, etc. (excluding those stored in tanks) In the case of a tank containing a low-specific radioactive substance, etc., the value obtained by multiplying the value expressed in millisieverts per hour by the maximum dose equivalent rate at a distance of one meter from the surface of the low-specific radioactive substance, etc. or the tank by the value obtained by multiplying it by the coefficients listed in the lower column of the following table, respectively, according to the classification of the maximum cross-sectional area of the low-specific radioactive substance, etc. or tank listed in the upper column of the following table. provided, however, that in the case of uranium or thorium ores or concentrates specified in the Notification, the maximum dose equivalent rate at a distance of one meter from the surface of the accumulation of the uranium or thorium ore or concentrate (or the surface of the tank if it is stored in a tank) may be the value specified in the Notification.

If it is less than 1 square meter	one
More than 1 square meter and less than 5 square meters	two
More than 5 square meters and less than 20 square meters	three
If it exceeds 20 square meters	ten

- (ii) In the case of a non-open container in which low-specific radioactive materials, etc. are stored, the value obtained by summing

the values in the preceding item for the low-specific radioactive materials, etc. stored in the container and the tank in which the low-specific radioactive materials, etc. are stored (in the case of radioactive transport stored in the container, the radioactive transport material stored in the same non-open container as the value (stored in an overpack) or packaging. or the value obtained by multiplying the value expressed in millisieverts per hour by the value obtained by multiplying the maximum dose equivalent rate at a distance of one meter from the surface of the container by one hundred by the coefficient listed in the lower column of the table in the preceding item, according to the classification of the maximum cross-sectional area of the non-open container listed in the upper column of the table in the preceding item.

5. The shipper shall affix the marks specified in the notification to the tanks or non-open containers containing low-specific radioactive materials, etc., to the four surfaces of the tank or the four sides of the container.
6. The shipper shall affix the signs prescribed in the notification referred to in paragraph (4) of Article 92 on the four surfaces of the tank or on the four sides of the large container on the tank or in a large container in which low-specific radioactive materials are stored.
7. In lieu of the signs referred to in the preceding paragraph, the shipper may affix the signs referred to in paragraph (5) by enlarging them to the dimensions of the signs. In this case, notwithstanding the provisions of paragraph 5, the shipper is not required to affix the tag set forth in the same paragraph.
8. In the event that only low-specific radioactive substances of the same product name are stored in the same tank or large container, the shipper shall display the UN number of the low-specific radioactive substance, etc. on the tank or large container in accordance with the standards prescribed in the notification referred to in paragraph (6) of Article 92.
9. Low-specific radioactive materials, etc., loaded in a certain area of a hold or compartment or on a deck (excluding those stored in tanks or non-open containers). and tanks containing low-specific radioactive materials (excluding those stored in non-open containers). and radioactive goods loaded in a certain area of the hold, compartment or deck of a vessel that is the same as the total transport index of a non-open container or the value of such value (excluding those that are stored in or packaged in an overpack or in a non-open container). ), overpacks (except those stored in non-open containers). and the sum of the transport indices of non-open containers containing radioactive goods shall not exceed fifty (50). However, this does not apply if any of the following criteria are met.

- (i) In the case of loading only radioactive goods in which low-specific radioactive materials, etc. or radioactive transports are stored in a certain area of the hold, compartment, or deck, or when a large container is used as a container, and only radioactive transport is loaded (limited to dedicated loading of a certain area of the hold, compartment, deck or ship). The same shall apply hereinafter in this paragraph and in paragraph 11. The sum of the transport indices of large containers containing surface contaminants or the transport indices of radioactive transports in which large containers are used as containers in a certain area of the hold, compartment or deck of the same value as the sum of the transport indices of radioactive transports and the transport indices of large containers containing radioactive goods does not exceed 200 for a certain area of the hold, compartment or deck.
- (ii) To be transported by special loading.
10. Low-specific radioactive materials, etc. loaded on board vessels (excluding those stored in tanks or non-open containers) and tanks containing low-specific radioactive materials (excluding those stored in non-open containers). and the sum of the transport indices of non-open containers or radioactive transports loaded on the same vessel as the value (excluding those stored in overpacks or packaged or in non-open containers). ), overpacks (except those stored in non-open containers). and the total transport index of non-open containers containing radioactive goods shall not exceed two hundred (or fifty in the case of loading on a vessel sailing only within the port of Lake River) per vessel. However, this does not apply if any of the following criteria are met.
- (i) Loading only large containers containing low-specific radioactive materials or radioactive transports, or radioactive transports in which large containers are used as containers;
- (ii) Dedicated loading (limited to dedicated loading of vessels) Carriage by.
11. Containers containing low-specific radioactive materials, etc., or tanks containing low-specific radioactive materials, etc., shall be collected at several locations on board the vessel (whether or not the distance between the container containing the fissile transport or overpack and the container containing the other fissile transport, other overpack or other fissile transport, with or without bulkheads or decks) A set of objects that are less than six meters long. The same shall apply hereinafter in this section. The sum of their critical safety indices in the case of loading as the same collection and the container containing the fissile transport, overpack or fissile transport shall not exceed fifty (or one hundred in the case of carriage by dedicated loading) for each collection.

12. In the case of loading low-specific radioactive materials, etc., in a certain area of a hold, compartment, or deck, the total amount of radioactivity of surface contaminants loaded in a certain area of the hold, compartment or deck, or **IP-1 transported goods loaded in a certain area of the hold, compartment or deck equivalent to the amount**, IP-1 type transport, IP. The total amount of radioactivity, such as low-specific radioactivity, contained in or packaged in a Type 2 or IP-3 transport shall not exceed the amount specified in the notification.
13. The sum of the quantities of fissile material contained in surface contaminants loaded in a hold or compartment or in a certain area of a deck shall not exceed the amount specified in the notification.
14. The provisions of paragraphs (1) and (3) of Article 94 and paragraphs (1) and (2) of Article 95 shall apply mutatis mutandis to the carriage of low-specific radioactive materials. In this case, the term "container" in these provisions shall be read as "container (including tank)".
15. The provisions of paragraphs (1) and (2) of Article 89 shall apply mutatis mutandis to the carriage of tanks or containers containing low-specific radioactive materials.

Article 101: Deletion[edit]

(Entry Restrictions)

Article 102 When transporting radioactive materials, etc., the master shall establish an exclusion zone around the place where the radioactive materials are loaded and restrict the entry of persons other than those concerned. provided, however, that this shall not apply if there is no risk of persons on board being exposed to radiation in excess of 1.3 millisieverts in a three-month period with the dose of radiation received in the area.

2. The master shall clearly indicate the restricted area referred to in the preceding paragraph by means of a sign. However, this does not apply if it is difficult for persons other than the person concerned to approach the area.

(Radiation Exposure Management)

Article 103 The master shall ensure that the maximum dose equivalent rate in the living quarters of the ship and other places normally used by persons does not exceed 1.8 microsieverts per hour.

2. The master shall ensure that the dose of radiation received by persons on board the vessel does not exceed 1 millisievert per year (or 5 millisieverts per year if the Minister of Land, Infrastructure, Transport and Tourism deems it appropriate).
3. The shipowner must prepare and provide the master with a radiation protection plan that describes the method of measuring doses and other matters stipulated in the notification so that the master can appropriately manage his or her exposure.

4. The master must keep the radiation protection plan referred to in the preceding paragraph on board.

(Special Provisions for Radiation Exposure Management)

Article 104 In cases where it is extremely difficult to comply with the provisions of the preceding Article, and the Minister of Land, Infrastructure, Transport and Tourism deems that necessary measures have been taken for radiation exposure management in accordance with the radiation dose, the maximum dose equivalent rate referred to in paragraph (1) of the same Article and the dose prescribed in paragraph (2) of the same Article may not be subject to the provisions of each paragraph.

2. In the case referred to in the preceding paragraph, the Minister of Land, Infrastructure, Transport and Tourism may give necessary instructions to prevent the exposure of persons on board.

(Inspection of contamination after cargo unloading)

Article 105 When the master of a ship has completed the loading and unloading of radioactive materials, etc., the master shall ensure that the degree of contamination by radioactive materials in the place where the radioactive materials are handled does not exceed the standards specified in the notification. provided, however, that this shall not apply to certain areas of the hold, compartment, or deck of a vessel that are continuously transported by special loading of low-specific radioactive materials that are transported without being transported as radioactive goods pursuant to the provisions of Article 100, Paragraph 1. (Notification of Carriage, etc.)

Article 106 When transporting radioactive materials, etc., as specified in the notification referred to in Article 71, paragraph (1), item (ii), the radioactive materials, etc., listed in Article 80, paragraph (1), item (iii), the radioactive materials, etc., specified in the notification under Article 96, or the surface contaminants specified in the notification under Article 100, paragraph (1), item (iii), or any other case specified in the notification, According to the classification of the cases listed in each of the following items, the date specified in each item (port of departure in the event of a disaster or other unavoidable reason (if the port of departure is a place other than Japan, the first port of call in Japan. The same shall apply hereinafter in this section. If approved by the head of the Regional Coast Guard Headquarters having jurisdiction over the Radioactive Materials, etc. (Form No. 6) by the date designated by the head of the Regional Coast Guard Headquarters, the Notification of Transportation of Radioactive Materials, etc. (Form No. 6. Hereinafter referred to as "Notification of Carriage" in this Article. If there is a change in the items described in the transportation notification, promptly submit a notification of change in transportation of radioactive materials, etc. (Form No. 7. In the following paragraph, it is referred to as "Notification of Change of

Carriage". shall be submitted to the head of the Regional Coast Guard Headquarters having jurisdiction over the port of departure. However, this does not apply to the notification of carriage if permission is obtained pursuant to the provisions of Article 22, Paragraph 4 of the Port Regulation Act.

- (i) If the carriage pertaining to the notification of carriage is carried out only within the area under the jurisdiction of the Regional Coast Guard Headquarters, two weeks prior to the date of commencement of the carriage
  - (ii) In cases other than the case in the preceding item: Four weeks prior to the date of commencement of such carriage
- (2) When the Chief of the Regional Coast Guard Headquarters submits a notification of carriage or a notification of change of transportation as set forth in the preceding paragraph, if the chief deems it necessary to prevent disasters and ensure public safety, the head of the Regional Coast Guard Headquarters shall, if it is necessary to prevent the approach of persons other than persons other than those involved in the transportation of radioactive materials, etc., regarding the communication system and other maritime accidents during transportation, The committee can give necessary instructions on matters necessary to prevent disasters caused by the theft of radioactive materials, etc.
- (Special Measures)

Article 107 In the following cases, when the approval of the Minister of Land, Infrastructure, Transport and Tourism has been obtained, the provisions of each of the following items may not be followed.

- (i) Article 80 and Article 89, paragraph (1) (including cases in which Article 100, paragraph 15 applies mutatis mutandis); or paragraph (2) (including cases in which Article 100, Paragraph 15 applies mutatis mutandis). Article 92, Article 94, Paragraph 1 (limited to the part pertaining to subparagraph (1). (Including cases in which Article 100, Paragraph 14 applies mutatis mutandis.) Article 95 (including cases in which Article 100, Paragraph 14 applies mutatis mutandis). or when it is extremely difficult to carry the vehicle in accordance with the provisions of Article 100, Paragraph 1, Paragraph 2, or Paragraphs 5 to 12, and the necessary measures have been taken to ensure the safety of carriage, and there is no safety hindrance to carriage without complying with these provisions.
- (ii) In the case of transporting radioactive materials, etc., by a vessel exclusively transporting radioactive materials, etc., Article 80 and Article 89, Paragraph 1 (including cases in which Article 100, Paragraph 15 applies mutatis mutandis). or paragraph (2) (including cases in which Article 100, Paragraph 15 applies mutatis mutandis). Article 92, Article 94, Paragraph 1 (limited to the part pertaining to subparagraph (1). (Including cases in which Article 100, Paragraph 14

applies mutatis mutandis.) or paragraph (3) (including cases in which Article 100, Paragraph 14 applies mutatis mutandis). Article 95 (including cases in which Article 100, Paragraph 14 applies mutatis mutandis). When there is no safety hindrance to carriage not in accordance with the provisions of Article 100, Paragraph 1, Paragraph 2, Paragraphs 5 to 12, or Article 105.

(iii) In the case of transporting radioactive goods, overpacks, or containers containing radioactive transports for which the maximum dose equivalent rate on the surface does not exceed 10 millisieverts per hour and for which necessary measures prescribed in the notification have been taken for the control of radiation exposure, Article 74(6) or (7)(b) and Articles 75 to 79 (limited to the part cited in Article 74(6) or (7)(b). or Article 89, paragraph (1) (including cases in which Article 100, paragraph 15 applies mutatis mutandis). When there is no safety hindrance even if the carriage is not in accordance with the provisions of

2. In the case referred to in the preceding paragraph, the Minister of Land, Infrastructure, Transport and Tourism may give necessary instructions to ensure the safety of the transportation of radioactive materials, etc.

#### Section 11 Corrosive Substances

(Containers and packaging used for transporting corrosive substances)

Article 108 In the case of transporting corrosive substances, the shipper shall comply with the provisions of Article 8, paragraph (1) and the standards prescribed in the notification regarding the structure and performance of the containers and packaging.

(Loading method of corrosive substances)

Article 109 In the case of transporting corrosive substances, the master shall follow the provisions of Article 20, Paragraph 1 and the standards prescribed in the notification regarding the loading method.

(Mutatis mutandis)

Article 110 The provisions of Article 47, paragraph (3), Article 48 and Article 57 shall apply mutatis mutandis to corrosive substances with a flash point of less than 23 degrees Celsius.

#### Section 12 Inspection

(Stowage Inspection)

Article 111 When the master intends to transport the dangerous goods listed in the following items, the master shall, in accordance with the classification of dangerous goods specified in the notification, the Minister of Land, Infrastructure, Transport and Tourism, the director of the Regional Transport Bureau having jurisdiction over the place of loading, or a registered inspection agency under Article 28, Paragraph 5 of the Ship Safety Act (hereinafter simply referred to as the "Registered Inspection Agency") with regard to the loading method and other loading

according to the classification of dangerous goods specified in the notification. It must be inspected.

- (1) The following explosives:
    - (b) Explosives with a grade of 1.1, 1.2 or 1.5 with a net mass of 250 kilograms or more.
    - (b) Explosives with a grade of 1.3 or 1.6 with a net mass of 500 kilograms or more.
    - (c) Explosives with a grade of 1.4 with a net mass of 1,000 kilograms or more.
  - (ii) Volume (refers to the volume converted to the state of zero megapascals at zero degrees Celsius) High-pressure gases other than liquefied gas of 300 cubic meters or more, or liquefied gas with a mass of 3,000 kilograms or more
  - (3) Organic peroxides (limited to those specified in the notification with a net capacity of 30 liters or more) )
  - (iv) Poisonous substances specified in a notification with a net mass of 15 kilograms or more.
  - (5) Radioactive materials, etc. (radioactive materials, etc. listed in Article 80, Paragraph 1, Item 1 (excluding radioactive materials, etc. specified in the notification in Article 96) Excludes. )
2. Notwithstanding the provisions of the preceding paragraph, it is not necessary to undergo the inspection set forth in the following items in the following cases.
- (i) When loading and transporting in a place other than Japan
  - (ii) When transporting dangerous goods in a container, and when the container is loaded and transported in a place that has equipment for loading only containers.
  - (iii) When transporting dangerous goods loaded on a motor vehicle, etc., and when the vehicle, etc. is loaded and transported in a roll-on/roll-off cargo area.
  - (4) When dangerous goods necessary for whaling are transported by the vessel for use in a catcher boat.
  - (v) When dangerous goods necessary for the salvage or dismantling of a vessel in distress are transported by the vessel for use on the vessel used for the service.
  - (6) When dangerous goods necessary for the use of weapons on a vessel belonging to the Japan Coast Guard are transported by the vessel for use on the vessel.
  - (vii) When dangerous goods necessary for meteorological observation conducted by the Japan Meteorological Agency are transported by the vessel for use on the vessel used for the relevant business.
  - (8) Except for those listed in the preceding items, flat water areas (in the case of barges, including areas that can be reached within one hour

by barge from the flat water area). In the case of transportation in the case of transportation in

- (3) A person who intends to undergo the inspection referred to in paragraph (1) must submit an application for inspection of the loading of dangerous goods (Form No. 8) to the person conducting the inspection referred to in the same paragraph.
- (4) When the Minister of Land, Infrastructure, Transport and Tourism, the Director General of the Regional Transport Bureau, or a registered inspection agency conducts the inspection referred to in paragraph (1), the Minister of Land, Infrastructure, Transport and Tourism shall issue a Dangerous Goods Accumulation Inspection Certificate (Form No. 9) to the person who has passed the inspection.
5. When transporting the dangerous goods listed in each item of paragraph (1), the master must have the dangerous goods loading inspection certificate set forth in the preceding paragraph on board.  
(Storage Inspection)

Article 112 Containers for the dangerous goods listed in the following items (limited to those with a structure enclosed on four sides): The shipper (or the shipowner if the owner of the vessel stores the dangerous goods in a container) must undergo an inspection by the director of the regional transport bureau or a registered inspection agency having jurisdiction over the place of shipment regarding the method of storing the dangerous goods in the container before loading.

- (1) Explosives
2. High-pressure gas
  - (iii) Flammable liquids (limited to those with a flash point of less than 23 degrees Celsius and those with a flash point of 23 degrees Celsius or more, which are toxic or corrosive as a secondary hazard and are specified in the notification). )
4. Organic peroxides
  - (5) Poisonous substances (limited to liquid or gaseous substances specified in the notification) )
6. Radioactive materials, etc.
  - (vii) Corrosive substances (limited to those that are flammable or toxic as a secondary hazard and are specified in the notification) )
2. Notwithstanding the provisions of the preceding paragraph, it is not necessary to undergo the inspection set forth in the following items in the following cases.
  - (1) When storing dangerous goods in containers in places other than Japan
  - (ii) When transporting dangerous goods in tank containers
- (3) A person who intends to undergo the inspection referred to in paragraph (1) must submit an application for inspection of the container for storage of dangerous goods (Form No. 10) to the person conducting the inspection referred to in the same paragraph.

- (4) The Director of the Regional Transport Bureau or the Registered Inspection Agency shall issue a Dangerous Goods Container Storage Inspection Certificate (Form No. 11) to a person who has passed the inspection referred to in paragraph (1).
5. A person who has been issued a dangerous goods container storage inspection certificate as described in the preceding paragraph must submit the dangerous goods container storage inspection certificate to the master before loading.
6. When transporting the dangerous goods listed in each item of paragraph (1) in containers, the master must keep the dangerous goods container storage inspection certificate set forth in paragraph (4) on board.
7. When a container containing the dangerous goods listed in each item of paragraph (1) is transferred to another vessel, the master of the previous vessel must issue the container storage inspection certificate to the master of the second vessel.

(Container Inspection)

Article 113 The Director General of the Regional Transport Bureau or a registered inspection agency shall, upon application, inspect containers and packaging of dangerous goods.

2. A person who intends to undergo the inspection described in the preceding paragraph shall submit the Dangerous Goods Container Inspection Application Form (Form No. 12) to the Director of the Regional Transport Bureau having jurisdiction over the location of the container and packaging (in the case of containers and packaging located outside Japan, the Director of the Kanto Transport Bureau). The same applies to paragraph 1 of the following article. or must be submitted to the Registered Inspection Agency.
- (3) In the inspection referred to in paragraph (1), if the container and packaging in question conform to the safety standards stipulated in the notification, the director of the Regional Transport Bureau or the Registered Inspection Organization shall be deemed to have passed the inspection, attach a label (Form No. 13) to it, and issue a Dangerous Goods Container Inspection Certificate (Form No. 14) to the person who has undergone the inspection.
4. In the following cases, the indication in the preceding paragraph shall cease to be effective.
  - (i) In the event of serious damage to the container or packaging;
  - (ii) When the container and packaging are modified to cause a change that may affect the safety of the dangerous goods stored in the container or packaging.
  - (iii) In the case of IBC containers and portable tanks specified in the notification, when two years and six months have elapsed from the date on which the indication in the preceding paragraph is attached, and in the case of high-pressure containers, when the period specified in the

notification has elapsed depending on the structure of the container and the type of high-pressure gas to be stored.

- (4) Other cases specified in the notification  
(Fees for confirmation, etc.)

Article 114 A person who undergoes a confirmation under Article 87, paragraph (1) or Article 99, paragraph (1), an approval under Article 88, paragraph (1), or an inspection under Article 111, paragraph (1) conducted by the Minister of Land, Infrastructure, Transport and Tourism or the Director of the Regional Transport Bureau, or Article 112, paragraph (1) or paragraph (1) of the preceding Article conducted by the Director of the Regional Transport Bureau, shall pay the fee prescribed in the following paragraphs to (6).

2. The amount of the fee for confirmation under Article 87, paragraph (1) or Article 99, paragraph (1), or approval under Article 88, paragraph (1) shall be as set forth in Appendix 5 (in the case of an application for confirmation or approval using the electronic information processing organization prescribed in the same paragraph pursuant to the provisions of Article 6, paragraph (1) of the Information and Communications Technology Utilization Act, Appendix 5-2).
3. Notwithstanding the provisions of the preceding paragraph, the amount of the fee for confirmation or approval under paragraph (1) of Article 87 or approval under paragraph (1) of Article 88 in a foreign country shall be the amount prescribed in the preceding paragraph plus 443,000 yen per application.
4. The amount of the fee for undergoing an inspection referred to in paragraph (1) of Article 111 shall be as follows:
  - (i) In the case of transporting dangerous goods stored in a container, 7,800 yen per container (7,600 yen in the case of an application for inspection using an electronic information processing organization stipulated in the same paragraph pursuant to the provisions of Article 6, Paragraph 1 of the Information and Communication Technology Utilization Act)
  - (ii) In cases other than the preceding item, up to several hundred dangerous goods shall be 15,800 yen (15,600 yen in the case of an application for inspection using the electronic information processing organization stipulated in the same paragraph pursuant to the provisions of Article 6, Paragraph 1 of the Information and Communication Technology Utilization Act), and 330 yen shall be added for each increase of 10 items or fractions thereof.
5. The amount of the fee for an inspection pursuant to the provisions of Article 112, paragraph (1) shall be 19,200 yen per container for up to several hundred items of dangerous goods stored in the container (19,000 yen in the case of an application for inspection using the electronic information processing organization prescribed in the same paragraph

pursuant to the provisions of Article 6, Paragraph 1 of the Information and Communications Technology Utilization Act), and 450 yen shall be added for each increase of 10 items or fractions thereof.

6. The amount of the fee for undergoing the inspection referred to in paragraph (1) of the preceding Article shall be as set forth in Appendix 6 (in the case of an application for inspection using the electronic information processing organization prescribed in the same paragraph pursuant to the provisions of Article 6, Paragraph 1 of the Information and Communications Technology Utilization Act, Appendix 6-2).
7. Notwithstanding the provisions of the preceding paragraph, the amount of the fee for the examination in the case of receiving the inspection referred to in paragraph (1) of the preceding Article in a foreign country shall be the amount prescribed in the same paragraph plus 113,700 yen per application.
8. In paragraph 4, items 2 and 5, the net mass of one dangerous goods (in the case of radioactive materials, etc., including the mass of the container or packaging) The number of dangerous goods in excess of 50 kilograms shall be calculated at the rate of 100 kilograms exceeding 50 kilograms or fractions thereof, plus 1 piece.
9. The fee referred to in paragraph (1) shall not be refunded even if the application is withdrawn for the convenience of the applicant after confirmation, approval or inspection has begun.
10. The fee referred to in paragraph (1) shall be paid by affixing a revenue stamp equivalent to the amount of the fee to the fee payment slip (Form No. 5).
11. The provisions of paragraph (1) shall not apply to the national government or to the independent administrative agencies listed in Article 5 of the Ordinance for Enforcement of the Ship Safety Act (Imperial Decree No. 13 of 1999).  
(Notification of Transportation of Dangerous Goods)

Article 115 In the case of transporting dangerous goods listed in each item of Article 111, paragraph (1), if item (8) of paragraph (2) of the same Article applies, the master shall, prior to loading the ship, submit a notification of carriage of dangerous goods (Form No. 15) to the nearest coast guard office (Regional Coast Guard Headquarters, Coast Guard Inspectorate, Coast Guard Department, Coast Guard Air Station, or Coast Guard Station). The same shall apply hereinafter. (In the case of lakes and rivers, the director of the regional transport bureau having jurisdiction over the place of loading). provided, however, that this shall not apply in the case where a permit has been obtained pursuant to the provisions of Article 22, Paragraph 4 of the Port Regulation Act, or in the case of submission of a notification of transportation of radioactive materials, etc., pursuant to the provisions of Article 106, Paragraph 1.

Articles 116 to 137 deleted.

Chapter 3 Transportation of Bulk Liquids and Dangerous Goods

Section 1 General Provisions

(Applicable)

Article 138 The provisions of this Chapter shall apply to vessels carrying bulk liquid dangerous goods.

(Equivalent Effect)

Article 139 Notwithstanding the provisions of this Chapter, equipment that does not conform to the provisions of this Chapter and which the Director of the Regional Transport Bureau having jurisdiction over the location of the ship deems to have the same or greater effect as that conforming to the provisions of this Chapter, shall be subject to the instructions of the Director of the Regional Transport Bureau having jurisdiction over the location of the ship.

Article 140 Notwithstanding the provisions of this Chapter, any method relating to cargo handling or other cargo that does not conform to the provisions of this Chapter and which the Director of the Regional Transport Bureau having jurisdiction over the location of the ship deems to have the same or greater effect as that conforming to the provisions of this Chapter, shall be in accordance with the instructions of the Director of the Regional Transport Bureau having jurisdiction over the location of the ship.

(Special vessels)

Article 141 Notwithstanding the provisions of this Chapter, ships without propulsion engines and sail rigging, and other vessels that the Director General of the Regional Transport Bureau having jurisdiction over the location of the vessel deems it difficult to apply the provisions of this Chapter to the provisions of this Chapter, the instructions shall be made by the Director of the Regional Transport Bureau having jurisdiction over the location of the ship.

Section 2 Liquefied Gas Substances

Subsection 1 General Provisions

(Applicable)

Article 142 The provisions of this Section shall apply to vessels carrying liquefied gas substances in bulk (hereinafter referred to as "liquefied gas bulk carriers"). ) to the application. provided, however, that liquefied gas substances that are specified in the notification as liquid chemicals (referred to as "common substances" in Article 257). This does not apply to vessels that do not carry liquefied gas substances other than those in the above.

(Terminology)

Article 143 In this section, the following terms shall have the meanings set forth in each of the following items:

- (i) Hold area means an area where cargo storage facilities are provided and is enclosed by hull structural members.
  - (ii) Cargo area means the hold area, the cargo pump room and the cargo compressor room, and the place on the deck above them.
  - (3) "Gas Hazard Zone" means the following areas and places:
    - (b) Hold area, cargo pump room and cargo compressor room
    - (b) an open deck of the cargo area and a place within 3 meters of the cargo area on the deck in the fore and aft directions, up to a height of 2.4 meters from the exposed deck;
    - (c) A place within 2.4 meters of the outer surface of the cargo storage facility to which the exterior surface is exposed.
    - (d) Places on open decks and semi-enclosed areas within 3 meters of the opening of the cargo tank, the outlet of the gas, the flange or valve of the cargo pipe, and the exhaust vents of the cargo pump room and the cargo compressor room (a place where a part of the space is enclosed). The same shall apply hereinafter. )
    - (e) Opening of the cargo pump room and the cargo compressor room (excluding the exhaust port) Open deck and semi-enclosed areas within 1.5 meters of
    - (f) Open and semi-enclosed areas on the deck within six meters of the opening of the ventilation cylinder for exhaust, and places above them.
    - (g) Locations adjacent to cargo storage facilities
    - (h) Secondary barrier (cargo that is a liquefied gas substance (hereinafter referred to as "cargo" in this section) Refers to the outer barrier when two barriers are provided to store. The same shall apply hereinafter. A place adjacent to the hold area pertaining to the cargo tank required and separated from the hold area by a gas-tight steel enclosure.
    - (i) Where to store loading and unloading hoses
- Enclosed or semi-enclosed areas with openings leading directly to the areas or places listed in paragraphs (i) to (l)
- (l) Any other area or place that the Director of the Regional Transport Bureau having jurisdiction over the location of the vessel deems to be likely to hold gas.
- (4) "Integrated tank" means a tank that constitutes a part of the hull.
  - (5) Membrane tank means a non-self-supporting tank that does not form part of the hull and is composed only of a layer of flat plates.
  - (6) Semi-membrane tank means a non-self-supporting tank that does not form a part of the hull and is composed of a layer of flat plates and a layer of curved surfaces.
  - (vii) Stand-alone tank means a self-supporting tank that does not form part of the hull.
- (Approval of Dangerous Goods Handling Regulations)

Article 143-2 When the owner of a liquefied gas bulk carrier prepares regulations for the handling of dangerous goods pursuant to the provisions of Article 5-8, paragraph (1) and provides them to the master of the ship, the director of the regional transport bureau having jurisdiction over the location of the vessel or the classification society (limited to those provided to the master of the ship as defined in Article 8 of the Ship Safety Act). The same shall apply hereinafter. It must be approved. The same shall apply when attempting to change this.

Subsection 2 Placement, etc.

(Arrangement and Isolation of Hold Areas)

Article 144 The hold area shall be a specific engine area (the specified engine area referred to in Article 2, Item 19 of the Ship Fire Prevention Structure Regulations). The same shall apply hereinafter. ) in front of it. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

Article 145 The hold area of a vessel carrying cargo by means of cargo tanks for which secondary barriers are not required shall be occupied by means of cofferdams or fuel oil tanks, and shall be used as living areas and operational areas (refers to the business areas referred to in Article 2, Item 16 of the Ship Fire Protection Structure Regulations). The same shall apply hereinafter. Institutional area (refers to the engine area referred to in Article 2, Item 21 of the same Ordinance). The same shall apply hereinafter. (refers to the control location stipulated in Article 2, Item 22 of the same Ordinance) The same shall apply hereinafter. shall be isolated from anchor chains and from places of storage of drinking water and food. provided, however, that if there is no risk of fire in the living quarters, business areas, control areas, anchor chains, and places where drinking water and food are stored, they may be separated by Class A partitions of Class A as stipulated in Article 3 of the said Ordinance in lieu of isolation.

2. The provisions of the main text of the preceding paragraph shall apply to the relevant hold area and the residential area, etc. (refers to the residential area, the business area, and the control area). The same shall apply hereinafter in this section and the following section. This shall not apply to the case where the bulkheads and decks that form the boundaries of the anchor chain depot and the place for storing drinking water and food are Class A partitions of Class A60 as stipulated in Article 3 of the Ship Fire Protection Structure Regulations.

3. The provisions of paragraph (1) shall apply mutatis mutandis to vessels carrying cargo by means of cargo tanks for which secondary barriers are required.

Article 146 The hold area of a vessel carrying cargo by means of a cargo tank referred to in paragraph (3) of the preceding Article shall conform to the requirements set forth in the following items:

- (i) The hold area of a vessel carrying cargo below 10 degrees Celsius shall be isolated from the bottom by means of a double bottom.
- (ii) The bulkhead that forms the boundary of the hold area of a vessel carrying cargo below 55 degrees Celsius shall not be the hull of the ship.

(Arrangement of Residential Areas, etc.)

Article 147 Residential areas, etc., shall not be located in the cargo area.

- (2) The living quarters of ships carrying cargo by means of cargo tanks for which secondary barriers are required shall be arranged in such a way that cargo gases do not enter the area from the hold area due to damage to one of the decks or bulkheads.

(Arrangement of cargo pump room and cargo compressor room)

Article 148 The cargo pump room and the cargo compressor room shall be provided above the exposed deck in the cargo area. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

- 2. If the machinery in the cargo pump room or the cargo compressor room is driven by a shaft system that penetrates a bulkhead or deck, a gland of a gas-tight structure through which the axial center can be adjusted shall be provided at the part through which the drive shaft penetrates.

(Arrangement of cargo control room)

Article 149 The cargo control room shall be located above the exposed deck in the cargo area. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

(Closure of the exposed deck)

Article 150 The part where the cargo tank penetrates the exposed deck shall be provided with equipment that can be effectively closed.

(Aperture, etc.)

Article 151 Air intakes in residential areas, etc., shall be equipped with a closing device (cargo containing toxicity as specified in the notification (hereinafter referred to as "toxic cargo" in this section). It is limited to those that can be closed from the inside. ) must be attached.

- 2. Upper deck (refers to the upper deck of the main text of Article 1, Paragraph 2 of the Ship Structure Regulations (Ministry of Transport Ordinance No. 16 of 10)). The windows of the lower hull and the windows of the first tier on the upper deck of the hull or deck room shall not open.

Article 152 A gas safety area facing the gas danger area on an open deck (a place outside the gas danger area) The same shall apply hereinafter.

Doors and openings shall not be provided in the partition wall. However, this does not apply when an airlock is provided, except for a partition wall leading to a residential area.

Article 153 The airlock referred to in the proviso to the preceding Article shall comply with the following requirements:

(i) Two gas-tight steel doors shall be placed at a distance of not less than 1.5 meters and less than 2.5 meters.

(ii) The steel doors referred to in the preceding item shall conform to the following requirements:

(b) It must be a self-closing type and there is no equipment that prevents it from closing.

(b) The height of the threshold shall not be less than 300 mm.

(3) Each steel door shall be equipped with a device on the outside of each steel door that issues the following alarms in accordance with the following cases:

(b) When one steel door is no longer closed, a visible alarm device

(b) When the steel door of two is no longer in a closed state, a visible audible alarm device.

2. The area between the two steel doors of the airlock shall be mechanically ventilated from the gas safety area and shall be kept pressurized for the gas hazardous area.

Article 154 The gas hazard area shall be arranged in such a way that persons wearing the safety equipment referred to in Article 239 shall be easily accessible, and the entrances and exits of the area shall be of sufficient size above the exposed deck.

2. Access to and from the cargo tank shall be direct from the open deck.

3. The cargo pump room and the cargo compressor room shall have two entrances and exits as far away from each other as possible. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

(Transportation for inspection)

Article 155 The structural members and heat-shielding materials of the hull in the cargo area shall have a space for maintenance and inspection.

(Bow or stern cargo handling equipment)

Article 156 The bow or stern of a ship shall not be provided with cargo handling facilities. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

(Removal of ignition source)

Article 157 In places where flammable gases are likely to leak or accumulate, no equipment or facilities that can be ignited shall be provided.

(Mutatis mutandis)

Article 158 Article 28-2 of the Ship Fire Protection Structure Regulations (excluding the proviso) The provisions of Articles 32 to 34 and Article 42, paragraph (1) shall apply mutatis mutandis to liquefied gas bulk carriers. In this case, in Article 32, Paragraph 1 of the same Order, the phrase "bulkhead and deck (in the case of a limited coastal vessel, limited to the bulkhead and deck that serves as the boundary between the engine area, the pump room, and the cooking room)" shall be substituted for "bulkhead and deck," and in Article 42, Paragraph 1 of the same Order, "tankers with a gross tonnage of 500 tons or more (excluding limited coastal vessels)." shall be read as "liquefied gas bulk carrier".

#### Subsection 3 Drainage Facilities

(Drainage system in the hold area)

Article 159 The piping of the drainage system in the hold area shall not pass through the engine area.

2. The inter-wall area of a vessel carrying cargo by means of a stand-alone tank specified in the notification shall be equipped with drainage equipment that complies with the requirements set forth in the following items:

(i) The leaked cargo must be able to be returned to the freight tube.

(ii) A removable spool piece shall be attached.

(Duct keel drainage system)

Article 160 When the piping of the drainage system of the dry duct keel is connected to a pump in the engine area, it shall be directly connected to the pump, and the drainage of the pump shall be directed directly to the outboard.

2. The pipe system on the suction side and the discharge side of the pump referred to in the preceding paragraph shall not be provided with valves or manifolds connected to other pipe systems.

3. The opening of the air pipe of the pump referred to in paragraph (1) shall not be provided in the engine area.

#### Subsection 4 Firefighting Equipment

(Firefighting equipment on decks in cargo areas, etc.)

Article 161 Flammable cargo specified in a notification (hereinafter referred to as "flammable cargo" in this section) or vessels carrying toxic cargo shall be equipped with water spraying equipment that complies with the following requirements:

(i) It is capable of injecting more than 10 liters of water per minute per square meter of floor area and 4 liters or more per minute of water per square meter of vertical surface area in fine granular form by means of a spray nozzle.

- (ii) The pump supplying water shall be capable of supplying a predetermined amount of water at the same time to the water spraying device for spraying in the following areas:
    - (b) Two cargo tanks adjacent to each other in the places listed in paragraph 4, item 1, (a) to (c) (if multiple cargo tanks are arranged on the side of the ship, the plurality of cargo tanks shall be regarded as one cargo tank). A location in the same compartment as (b) Places listed in paragraph 4, item 1, items (d) to (c)
  - (iii) A cargo area, etc., on the wall of a deck or deck room where there is a constant presence (refers to the cargo area, the cofferdam, the ballast area, and the vacant space adjacent to the hold area, and the place on the deck above them). The same shall apply hereinafter in this subsection. The water spraying device for spraying the place facing the above and the place listed in paragraph 4, item 1 (g) shall be supplied with water by two or more pumps. In this case, the pump must be arranged in such a way that all two or more pumps will not be disabled due to a fire in one compartment.
2. A fire extinguishing pump may be regarded as a pump supplying water from a water spraying device only when a connecting pipe with a stop valve is provided outside the cargo area between the water transmission pipe of the water injection fire extinguishing device and the water transmission pipe of the water spray device.
- (3) Sanitation pumps, ballast pumps, bilge pumps or miscellaneous pumps, if they are not normally used for the intake and evacuation of oil, and are used for the transfer or intake and discharge of fuel oil on an ad hoc basis, may be regarded as pumps supplying water to the water spraying equipment provided that they are fitted with an appropriate switching device.
4. When a water spraying device is installed pursuant to the provisions of paragraph (1), it shall be provided in accordance with the following:
- (1) It can be released to the following locations:
    - (b) Cargo tanks (including equipment and storage tanks for using liquefied natural gas as fuel as provided for in Article 226-3, paragraph 1); The same applies to (b). Exposure part
    - (b) Areas of the tank cover that may be affected by fire in pumps, heating equipment, cooling systems, and other equipment installed on the exposed deck.
    - (c) pumps, heating equipment, cooling systems, and other equipment installed on exposed decks;
    - (d) Manifolds and control valves for cargo handling
    - (e) Exposed rapid shut-off valve
    - (f) The enclosure wall of the ship tower, deck room, cargo pump room, cargo compressor room, cargo control room, and storage room where

flammable materials are stored, and the part facing the cargo area, etc.

(g) Lifeboats and liferafts installed in places facing the cargo area (in the case of ships subject to the provisions of Article 69, Paragraph 2 of the Ship Lifesaving Equipment Regulations (Ordinance No. 36 of the Ministry of Transport of Showa 40), lifebuoys or lifebuoys that are to be equipped in place of lifeboats or liferafts in accordance with the provisions of the same paragraph) and convening places facing the cargo area.

(c) Unenclosed cargo pumps, cargo compressors and electric motors

(2) When two or more water spraying devices are installed, devices that can operate each device independently shall be provided at the rear of the cargo area, etc., and devices provided for discharge to the places listed in the preceding item (a) shall be provided so that they can be discharged to all places in the horizontal direction.

(iii) The exterior of the place where the water is to be sprayed is easily accessible, not easily blocked by the outbreak of fire, and can be operated from a position adjacent to the living area.

Article 162 A vessel carrying flammable cargo shall be equipped with two or more fixed powder fire extinguishing devices on the deck of the cargo area, etc., that meet the requirements set forth in the following items: provided, however, that in the case of a vessel with an internal volume of less than 1,000 cubic meters, the number may be one.

(i) Powder extinguishing agent (hereinafter referred to as "fire extinguishing agent" in this Article) It shall be operated by a dedicated inert gas stored in a pressure vessel adjacent to the storage vessel.

(ii) The fire hose shall comply with the following requirements:

(b) Weather-resistant materials (excluding those stored in weathertight containers) It must be made with the following.

(b) The length specified in the notification shall be sufficient.

(c) It must be easy and quick to operate.

(d) It must be capable of releasing a fire extinguishing agent with a mass of 3.5 kilograms per second.

(iii) The monitor shall be capable of releasing a fire extinguishing agent with a mass of 10 kilograms per second.

(4) The nozzle shall be capable of starting and stopping and shall conform to the requirements set forth in subparagraph (2)(a).

(5) The piping in the case of two or more monitors or fire hoses, or a combination thereof, shall be independent.

(6) The amount of fire extinguishing agent shall be sufficient to discharge from all fire hoses and monitors for not less than 45 seconds.

2. When a fixed powder fire extinguishing device is installed pursuant to the provisions of the preceding paragraph, it must be installed in accordance with the following:
  - (i) At least one fire hose shall be provided on each side of the aft end of the cargo area, etc., facing the residential area.
  - (ii) The hose container shall be placed near the connecting plug.
  - (3) The monitor shall be positioned so that it can be discharged into the manifold for loading and unloading.
  - (iv) Two fire extinguishing agents may be released by means of a monitor or a fire hose to any part of the cargo pipe apparatus, cargo handling manifold, and cooling system on the exposed deck of the cargo area.(Firefighting equipment such as cargo pump rooms)

Article 163 In the cargo pump room and the cargo compressor room, a fixed fire-extinguishing gas fire extinguishing device (a fixed fire-extinguishing gas fire extinguishing device as defined in Article 5, Item 2 of the Ship Fire Fighting Equipment Regulations) shall be installed. The same shall apply hereinafter. It must be equipped with one that meets the requirements listed in the following items. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

- (i) The alarm system shall operate safely even in a mixture of gas and air generated from flammable cargo.
  - (ii) The amount of gas held shall not be less than 45 per cent of the total capacity of the cargo pump room and the cargo compressor room.
2. Precautions regarding the use of the fixed fire extinguishing device shall be posted at the control place of the fixed fire extinguishing gas fire extinguishing device referred to in the preceding paragraph.  
(Firefighter orthotics, etc.)

Article 164 Vessels carrying flammable cargo shall be equipped with the number of firefighters' equipment specified in the lower column of the following table at a distance from each other that can be easily accessible, according to the capacity of the cargo listed in the upper column of the following table. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

Cargo Capacity	number
More than 5,000 cubic meters	Five groups
5,000 cubic meters or less	Four Pairs

- (2) Vessels other than those specified in the preceding paragraph, Class III vessels referred to in Article 1-2, Paragraph 1 of the Ship Fire Fighting Equipment Regulations, and Class 4 vessels with a gross tonnage of 500 tons or more in the navigation area of the distant sea area or the

near-sea area, shall be equipped with two sets of firefighter equipment at a distance from each other where they can be easily approached.

- (3) Vessels equipped with firefighters' equipment pursuant to the provisions of the preceding two paragraphs shall be equipped with an explosion-proof portable two-way radiotelephone device for firefighters as deemed sufficient by the Director of the Regional Transport Bureau having jurisdiction over the location of the ship.

(Fire pumps and water pipes)

Article 165 A fire pump shall be capable of simultaneously spraying two fire pumps at a pressure of not less than 0.5 megapascals at the same time by means of a hose fitted with a nozzle of 19 millimeters in diameter, even if the maximum amount of water from two fire pumps operating at the same time is transmitted through any adjacent fire hydrant.

2. The arrangement of water pipes for extinguishing fires in the cargo area shall be annulous. However, this does not apply when connecting to fire extinguishing pumps installed in front and rear outside the cargo area.

- (3) Valves shall be placed in protected areas outside the cargo area and in places where water supply to the damaged area can be cut off in the event of damage to the water transmission pipe on the cargo tank deck, at intervals deemed safe by the director of the regional transport bureau having jurisdiction over the location of the vessel in consideration of the capacity of the pumps (in the case of water pipes of water spraying equipment, etc., at intervals not exceeding 40 meters in the case of water spray pipes).

(Mutatis mutandis)

Article 165-2 The provisions of Article 68, paragraphs (5) to (7) of the Ship Fire Fighting Equipment Regulations shall apply mutatis mutandis to the cargo pump room and cargo compressor room of a liquefied gas bulk carrier. In this case, in the heading of Article 68 of the same Ordinance, the term "cargo tank of a tanker" shall be substituted for "cargo pump room and cargo compressor room of a liquefied gas bulk carrier", in the provisions of paragraphs 5 to 7 of the same article, "cargo pump room of an oil tanker with a gross tonnage of 500 tons or more" shall be substituted for "cargo pump room and cargo compressor room", and in paragraph 6, item 1 of the same article, "continuous hydrocarbon gas concentration monitoring device" shall be substituted for ". Flammable gas concentration continuous monitoring device".

(Special Provisions for Application of Ship Fire Fighting Equipment Regulations)

Article 166 The provisions of Article 57, paragraph (1) and Article 63 of the Regulations on Ship Fire Fighting Equipment shall not apply to liquefied gas bulk carriers.

Article 167 Provisions of the Ship Fire Fighting Equipment Regulations (excluding the provisions of Article 57, Paragraph 1, Article 63 and Article 64-3 of the same Ordinance) Liquefied gas bulk carriers shall be deemed to be third-class vessels under Article 1-2, Paragraph 1 of the same Order.

Subsection 5 Cargo Containment Facilities

(Materials for cargo tanks, etc.)

Article 168 The materials used for cargo tanks, secondary barriers and hull structures adjacent to these installations shall conform to the standards prescribed in the notification.

(Welding of cargo tanks)

Article 169 The welding method and welding material of the weld of the cargo tank shall conform to the standards prescribed in the notification.

(Structure of cargo tank)

Article 170 The structure of the cargo tank shall conform to the standards prescribed in the notification.

(Type of cargo tank)

Article 171 A cargo tank carrying cargo with a boiling point of less than 10 degrees Celsius shall be other than an integrated tank. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

2. The cargo tank on which the cargo specified in the notification is to be loaded shall be a stand-alone tank of the type specified in the notification.

(Support of cargo tanks, etc.)

Article 172 The support platform of a cargo tank shall be of a solid structure that does not cause excessive stress concentration on the tank and the hull.

2. Stand-alone tanks shall take measures to prevent the tank from floating due to flooding of the hold area.

(Secondary barrier)

Article 173 Membrane tanks, semi-membrane tanks and stand-alone tanks specified in a notification carrying cargo at a temperature of less than 10 degrees Celsius shall be provided with secondary barriers covering all parts of the tank. However, in the case of semi-membrane tanks, if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so, a secondary barrier covering a part of the tank (hereinafter referred to as "partial secondary barrier" in this section) shall be provided. It can be.

(2) Stand-alone tanks specified in the notification for loading cargo below 10 degrees Celsius shall be provided with a partial secondary barrier.

Article 174 A cargo tank for which a partial secondary barrier is provided pursuant to the provisions of the preceding Article shall be provided

with equipment capable of directing cargo leaked into a place where there is no secondary barrier between the cargo tank and the secondary barrier. Article 175 Secondary barriers shall conform to the requirements set forth in the following items:

- (i) The vessel must be able to store the leaked cargo for more than 15 days and maintain the temperature of the hull structure above the prescribed temperature. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it acceptable to consider the mode of navigation.
  - (ii) It shall not be affected by damage to the cargo tank.
  - (3) The function must be satisfied even under a 30-degree lateral tilt.
  - (4) It must have a structure that can confirm its effectiveness.
- (Heat Protection)

Article 176 Cargo tanks carrying cargo with a temperature of less than 10 degrees Celsius shall be equipped with materials conforming to the standards prescribed in the notification.

(Cargo tank display)

Article 177 When labeling is made on a stand-alone tank specified in a notification, it shall be done in a manner that does not cause excessive stress concentration.

(Ground)

Article 178 A cargo tank separated from the hull of a ship shall remain grounded.

Subsection 6 Pipe Equipment, etc.

(Arrangement of Pipe Equipment for Cargo)

Article 179 Pipes pertaining to cargo shall be arranged in accordance with the following items:

- (i) Separation from pipe equipment other than the pipe equipment pertaining to the cargo.
- (ii) Except for the following pipe devices, they shall not be placed in residential areas, etc., or engine areas (in the case of pipe devices listed in (b), residential areas, etc.).
  - (b) Cargo pipe equipment of cargo handling equipment at the bow or stern of the vessel
  - (b) Gas fuel pipe equipment
- (3) The conduit apparatus pertaining to the cargo connected to the cargo tank shall be connected to the tank directly from the open deck. However, this does not apply when connecting to a cargo tank through a gas-tight trunk or the like.
- (4) Except for cargo pipe equipment and cargo disposal pipe equipment connected to onshore facilities, cargo tanks shall be arranged from the outer plate to the inside in accordance with the position prescribed in Article 247.

(Cargo valve)

Article 180 Pipes connected to cargo tanks (excluding pipes for relief valves and liquid level gauges) A manual stop valve and a rapid shut-off valve shall be installed as close as possible to the tank. provided, however, that the application of the provisions of this paragraph may be relaxed if the director of the regional transport bureau having jurisdiction over the location of the vessel deems that it is safe to do so.

Article 181 A manifold for loading and unloading shall be fitted with a rapid shut-off valve.

(Rapid shut-off valve)

Article 182 The rapid shut-off valve referred to in the preceding Article shall comply with the following requirements:

- (i) It must be easily closed by remote control or manual. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.
  - (ii) It must be of the fail-closed type.
  - (iii) It must be able to be completely closed within a time period that does not generate surge pressure of 30 seconds or less.
  - (4) The closing time can be confirmed and changed.
  - (5) The position of the valve must be easily verified.
2. The remote control referred to in subparagraph (1) of the preceding paragraph shall be carried out at two or more places in the cargo area, including the cargo control area, and at the bridge.
  3. Information on the closing time and operating characteristics of the rapid shut-off valve shall be available at all times on board.

(Excess Flow Valve)

Article 183 The excess flow valve shall have a structure that automatically closes when the cargo exceeds the prescribed flow rate.

2. The pressure generated during the operation of the excess flow valve shall not exceed the allowable pressure of the pipe system to which the excess flow valve is attached.

(Automatic shut-off valve)

Article 184 The cargo pipe equipment shall be fitted with an automatic shut-off valve that shuts off the transfer of cargo when the liquid level of the cargo tank becomes abnormally high. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

2. The detector of the automatic shut-off valve referred to in the preceding paragraph shall not be used in conjunction with the detector of the high-level liquid level alarm device described in Article 204.
3. Notwithstanding the provisions of paragraph (1), if the rapid shut-off valve referred to in Article 182 has the function of automatic shut-off, the rapid shut-off valve may be used as an automatic shut-off valve.

(Heat Protection)

Article 185 The pipe apparatus for low-temperature cargo shall be used at the design temperature of the adjacent hull structure (the temperature of the cargo loaded in the cargo tank or the temperature of the cargo being transferred, whichever is smaller). The same shall apply hereinafter in this section. Measures must be taken to prevent heat protection so that it does not fall lower.

(2) A sprinkler system shall be provided at the bottom of the manifold for the loading and unloading of ships carrying cargo below 100 degrees Celsius to prevent damage to the hull due to leakage of cargo during the loading and handling of such cargo.

(Ground)

Article 186 The pipe apparatus pertaining to the cargo separated from the hull shall be grounded.

(Sampling end of the sample)

Article 186-2 When a sample collection end is provided in a cargo tube, it must comply with the following requirements:

(1) The position of the collection edge must be easily visible.

(ii) The collection end shall be such that the collection container can be properly fixed and shall have sufficient strength.

(iii) Two or more valves shall be provided between the cargo pipe and the collection end. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

(Loading and unloading hose)

Article 187 Cargo handling hoses shall conform to the requirements set forth in the following items:

(i) It must be suitable for the nature and temperature of the cargo.

(2) It must be able to withstand a pressure of 5 times or more of the maximum working pressure after withstanding 200 repetitive pressures in a pressure range of 20 megapascals to at least twice the maximum working pressure.

(3) The following items must be indicated.

(b) Maximum operating pressure

(b) Maximum and minimum operating temperature (limited to when used at a temperature other than the outside air temperature) )

(4) The maximum working pressure must be 1.0 megapascals or more.

(Transfer of cargo)

Article 188 Each cargo tank shall be equipped with one or more spare pumps for each cargo tank in which cargo is transferred by means of a cargo pump that is not easily accessible to persons when the cargo is loaded.

(Fittings)

Article 189 A ship shall be equipped with fittings for a conduit system for the return of cargo gas to shore facilities.

Subsection 7 Ventilation device

(Ventilation device for cargo pump room, etc.)

Article 190 The cargo pump room, the cargo compressor room and the cargo control room in the gas hazardous area shall be equipped with mechanical ventilation devices that conform to the following requirements:

- (i) It must be able to be operated from outside the location.
  - (ii) It shall be capable of ventilating a volume of air not less than thirty times the volume of the place (eight times the volume in the case of a cargo control room in a gas safe area) per hour.
  - (3) It must be fixed.
  - (4) The air intake and exhaust vents shall be provided in accordance with the standards specified in the notification.
  - (5) The ventilation duct shall not pass through the residential area or the engine area. provided, however, that this shall not apply to the ducts of gas fuel pipes stipulated in Article 227, Paragraph 1, Item 2.
  - (6) A protective wire mesh with a mesh of not more than 13 millimeters shall be attached to the outside of the opening of the duct for ventilation.
  - (vii) It must be equipped with spare parts for the fan. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.
  - (8) Measures have been taken to monitor the operating status.
- (2) Precautions regarding the use of ventilation devices in the place specified in paragraph (1) shall be posted outside the place specified in paragraph (1).

(Ventilation device in the electric motor room)

Article 191 The electric motor room in which the cargo pump or compressor is driven, and the place where the inert gas generator is stored (excluding the engine area) The cargo control room of the gas safe area and the gas safety area within the cargo area shall be equipped with mechanical ventilation devices that meet the following requirements:

- (1) It must be fixed.
  - (ii) Requirements for items 1, 2, and 6 to 8 of paragraph 1 of the preceding Article
2. Precautions regarding the use of ventilation and ventilation devices in the place shall be posted outside the place specified in paragraph (1).

(Ventilation equipment in the hold area, etc.)

Article 192 Hold areas, barrier-to-wall areas, and other places where cargo gas may accumulate (excluding the places stipulated in the preceding two Articles) shall be equipped with a fixed mechanical ventilator that meets the following requirements or a portable mechanical ventilator deemed appropriate by the Director of the Regional Transport Bureau having jurisdiction over the location of the ship:

- (i) It must be able to be operated from outside the location.

(ii) It is capable of ventilating air in a volume of not less than eight times the volume of the place (sixteen times in the case of a portable mechanical ventilation device) per hour.

(3) The blower shall be installed away from the opening for traffic.

(Ventilation device for flammable cargo)

Article 193 Mechanical ventilation devices installed on ships carrying flammable cargo that ventilate in places where such cargo is likely to be held shall comply with the requirements set forth in the following items:

(i) The electric motor that drives the fan is provided outside the ventilation duct.

(ii) Fans and ducts shall not generate sparks.

2. The mechanical ventilation devices referred to in paragraphs (1) and 191 of Article 190 and Article 191, which are installed on ships carrying flammable cargo, shall be operated at all times.

(Ventilation equipment for toxic cargo)

Article 193-2 The mechanical ventilation devices referred to in Article 190, paragraph (1) and Article 191, paragraph (1) installed on ships carrying toxic cargo shall be operated at all times.

#### Subsection 8 Pressure and Temperature Control Equipment

(Pressure & Temperature Control Device)

Article 194 A cargo tank shall be equipped with a cooling device for controlling the pressure or temperature of the cargo in the cargo tank (in the case of a ship that uses cargo as fuel pursuant to Article 226, a cooling device or a device that uses evaporated gas as fuel on board). However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it acceptable to consider the structure of the vessel and the mode of navigation.

2. A cargo tank equipped with a cooling system shall be equipped with a spare cooling system.

(Cooling method)

Article 195 The cooling method of the cooling system shall be one of the following items:

(1) Direct method: A method in which evaporated cargo is circulated, compressed and condensed, and returned to the cargo tank.

(ii) Indirect method: A method of cooling or condensing by circulation of refrigerant.

(3) Combinatorial method: Combination method according to the method of the preceding two items

2. In the case of carriage of goods specified in the notification, it shall not be carried by direct or combined method.

(Prevention of Mixing of Cargo)

Article 196 A vessel carrying two or more types of cargo at the same time shall be equipped with a cooling system for each cargo. However, this

does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.  
(Arrangement of refrigerator pipe system)

Article 196-2 A refrigeration pipe device that is not equipped with a gas detection device shall not be connected to a pipe device outside the cargo area.  
(cooling water in refrigerator)

Article 197 A vessel that requires cooling water for its cooling system shall be equipped with one or more dedicated pumps to supply the cooling water.

Subsection 9 Cargo tank venting device

(Ventilation equipment for cargo tanks, etc.)

Article 198 Cargo tanks, interwall areas, hold areas where pressures exceeding the design pressure may be applied, and cargo pipe equipment shall be equipped with ventilation devices that conform to the following requirements:

(i) Two or more pressure relief valves with sufficient exhaust capacity shall be installed in accordance with the following:

(b) The set pressure shall not exceed the maximum design pressure of the cargo tank. However, if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it unavoidable in consideration of the exhaust capacity of the pressure relief valve, it shall be instructed by the director.

(b) It shall be mounted in a position above the liquid level of the liquid cargo even in a state of a horizontal inclination of 15 degrees and a longitudinal inclination of 0.86 degrees.

(c) Appropriate heat protection measures have been taken.

(d) The set pressure shall be indicated.

(ii) A pressure relief valve that can change the set pressure shall be sealed in the device for the change at the set pressure.

(iii) The pressure relief valve and its pipe device shall be arranged in such a way that cargo will not be held in any condition.

(4) The air pipe shall comply with the following requirements:

(b) A drain is provided in a place where cargo may be lodged.

(b) Measures must be taken to prevent damage due to the movement of the hull.

(5) The opening end of the air pipe of the cargo tank shall comply with the following requirements:

(b) Measures shall be taken to prevent water from entering the cargo tank, and the tank shall have an exhaust port that ejects vertically upward without obstructing the flow of gas.

(b) The width of the ship from the exposed deck (refers to the width of the ship as defined in Article 7 of the Fully Loaded Waterline Regulations (Ordinance No. 33 of the Ministry of Transport of Showa

- 43)). The same shall apply hereinafter. or six meters above the work area or six meters above the Gangway, whichever is higher.
- (c) It shall be located at a distance of not less than the width of the vessel or 25 meters, whichever is smaller, horizontally from the air intake or other opening in the gas safety area. However, the length of the ship (refers to the length of the ship as defined in Article 4 of the Full Waterline Regulations). The same shall apply hereinafter. This does not apply to vessels with a length of less than 90 meters.
- (6) The opening ends of the air pipes of the barrier area, the hold area where pressure exceeding the design pressure may be applied, and the opening end of the cargo pipe equipment shall be provided at a distance of not less than 10 meters horizontally from the air intake or other openings in the gas safety area. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it acceptable to consider the size of the vessel, the mode of navigation, etc.
2. When two or more pressure relief valves with different set pressures are installed in one cargo tank, the pressure relief valves shall be capable of changing the set pressure without removing them. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.
3. When changing the set pressure set in the preceding paragraph, the following shall be followed.
- (i) Under the supervision of the master, the vessel shall be carried out in accordance with the procedures described in the Operating Manual, as may be deemed appropriate by the Director of the Regional Transport Bureau having jurisdiction over the location of the vessel or by the classification society.
- (ii) Indicate that the change is being made to the cargo control room.
4. Vessels carrying two or more types of cargo at the same time shall be equipped with independent ventilation devices for each cargo. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.
- (Negative pressure relief valve)

Article 199 A cargo tank with an external pressure of 0.025 megapascals or less in design shall be fitted with a negative pressure relief valve that complies with the requirements set forth in the following items in order to suck in appropriate gas from the outside when the gas pressure in the tank is in a state of reduced pressure. provided, however, that a device that stops or shuts off the suction of cargo from the cargo tank by detecting the pressure in the cargo tank and issues an alarm (limited to a device that can confirm operation at a predetermined pressure). This does not apply when equipped.

(i) Measures have been taken to prevent water from entering the cargo tank.

(ii) Operation can be confirmed at a predetermined pressure.

Subsection 10 Measuring Devices and Gas Detection Devices

(Centralized placement of control devices, etc.)

Article 200 The control and indication devices of the valves and pumps of a ship that handles cargo by means of remotely controlled valves and pumps shall be concentrated at the cargo control area.

(Liquid level measuring device)

Article 201 The liquid level measuring device installed in the cargo tank shall be one of the following types of measurement according to the type of cargo, as prescribed in the notification:

(i) A sealed liquid level measuring device (refers to a device that measures the liquid level from the outside of a cargo tank) )

(ii) Penetrating sealed liquid level measuring device (refers to a device that transmits information measured in the cargo tank to the outside of the cargo tank). )

(iii) Restrictive liquid level measuring device (refers to a measuring device that is completely closed when not in use, and measures the liquid level in such a way that a small amount of cargo is released into the atmosphere when it is used). )

2. The penetrating sealed liquid level measuring device referred to in item (2) of the preceding paragraph shall be installed directly in the cargo tank. However, this does not apply when the shut-off valve is installed at a place as close to the tank as possible between the measuring device and the cargo tank.

Article 202 Deletion[edit]

(Maintenance of liquid level measuring equipment)

Article 203 The liquid level measuring device shall be able to be maintained even when cargo is loaded in a cargo tank.

(Prevention of overflow)

Article 204 A cargo tank shall be equipped with a high-level liquid level alarm device that operates independently of the liquid level measuring device installed in the cargo tank and issues a visible and audible alarm in accordance with the provisions of Article 201.

2. The electrical circuit of the high-level liquid level alarm device must be testable.

(Testing and Calibration)

Article 205 Liquid level measuring devices shall be tested and calibrated at regular intervals.

(Pressure measuring device)

Article 206 A cargo tank shall be equipped with a pressure measuring device near the top of the cargo tank.

2. The cargo control area shall be equipped with an indicator of a pressure measuring device (indicating the maximum and minimum allowable pressure of the cargo tank).
3. The bridge shall be equipped with a device that issues an alarm when the pressure of the cargo tank reaches a predetermined pressure.
4. When changing the setting pressure of the device that emits the alarm referred to in the preceding paragraph, it must be done under the supervision of the master and in accordance with the procedure described in the operating manual deemed appropriate by the director of the regional transport bureau having jurisdiction over the location of the ship or by the classification society.

(Pressure gauges for pipe equipment, etc.)

Article 207 A pressure gauge shall be installed in any of the following devices or places:

- (1) Discharge pipe of cargo pump
2. Manifold for cargo handling
- (iii) Hold areas without openings leading to the atmosphere and areas between barriers.

(Testing and Calibration)

Article 208 Pressure measuring devices shall be tested and calibrated at regular intervals.

(Cargo tank temperature measuring device)

Article 209 A cargo tank shall be equipped with temperature measuring devices at two or more points, including the top and bottom of the cargo tank.

- (2) Cargo control areas and other appropriate places shall be equipped with an indicator of a temperature measuring device (indicating the minimum operating temperature of the cargo tank).

(Temperature measuring device for heat shielding materials, etc.)

Article 210 Ships carrying cargo below 55 degrees Celsius in cargo tanks for which secondary barriers are required shall be equipped with an appropriate number of temperature measuring devices that will give an audible alarm if the temperature at the place approaches the permissible minimum temperature inside the heat-shielding material or in the hull structure adjacent to the cargo storage facility.

Article 211 The cargo tanks of ships carrying cargo below 55 degrees Celsius shall be equipped with an appropriate number of temperature measuring devices if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it necessary for safety reasons.

2. The cargo control area and other appropriate places shall be equipped with an indicator of the temperature measuring device referred to in the preceding paragraph.

(Gas detection device)

Article 212 Ships shall be equipped with fixed gas detection devices of the type specified in the notification in accordance with the type of cargo to be carried in the following places:

- (1) Cargo pump room
  2. Cargo compressor room
  3. Electric motor room
  - (4) Cargo control rooms (excluding those located in the gas safety area)
  - )
  5. In the airlock
  6. Within the jurisdiction of the Inert Gas Supply
  - VII. Inside an internal combustion engine that uses cargo as fuel
  - (viii) Enclosed areas where gas may accumulate in the cargo area of a stand-alone tank other than a stand-alone tank referred to in paragraph (2) of Article 171;
  - (9) Cooling equipment referred to in Article 194, paragraph (1);
  - (10) In the duct referred to in Article 227, paragraph (1), item (ii)
  - (11) In addition to the places listed in the preceding items, enclosed places equipped with cargo pipe equipment, gas fuel pipe equipment, or gas-using equipment.
2. The fixed gas detection device referred to in the preceding paragraph must comply with the following requirements. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.
    - (i) The collected gas must be able to be detected immediately.
    - (ii) It must be able to be detected continuously.
    - (3) The collection end is fixed in an appropriate position.
    - (iv) The piping from the sampling end shall not be provided in the gas safety zone, except in the case of conformity with the requirements specified in the notification.
    - (5) The test can be performed at any time.
    - (6) Devices that issue visible and audible alarms (in the case of transporting flammable cargo, limited to devices that issue an alarm at a concentration of 30 percent of the explosive limit). It must be equipped with the following.
  3. Detectors of fixed gas detection devices and devices that issue visible and audible alarms shall be installed on the bridge, cargo control areas and other appropriate locations.

(Gas detection device for ships carrying flammable cargo)

Article 213 The hold area and the interwall area of a ship carrying flammable cargo in cargo tanks for which secondary barriers are required shall be equipped with fixed gas detection devices that comply with the following requirements:

- (i) The concentration of the gas can be measured between zero and 100% by volume.

(ii) The requirements listed in each item of Paragraph 2 of the preceding Article. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

(Gas detection equipment for vessels carrying toxic cargo)

Article 214 The hold area and the interwall area of a vessel carrying toxic cargo shall be equipped with a fixed pipe device for the extraction of gas from the area.

(Oxygen content measurement device)

Article 214-2 Ships shall be equipped with a fixed device capable of measuring the oxygen content in the following places:

(i) An enclosed or semi-enclosed area where a nitrogen generator, a cooling system using nitrogen as a refrigerant, or an inert gas device is installed;

(ii) in the case of a vessel carrying non-flammable cargo, the hold area, the cargo pump room and the cargo compressor room;

(Portable gas detectors, etc.)

Article 215 A ship shall be equipped with two or more portable gas detectors suitable for the cargo to be carried and a device capable of measuring the oxygen content.

(Gas detection)

Article 216 When entering the hold area and the inter-wall area of a ship carrying toxic cargo, gas detection shall be carried out before entry and every 30 minutes during entry.

(Testing and Calibration)

Article 217 Stationary gas detection devices shall be tested and calibrated at regular intervals.

2. Ships shall be equipped with standard gases for the testing and calibration referred to in the preceding paragraph.

(Automatic control)

Article 217-2 A measuring device or gas detection device equipped pursuant to the provisions of this subsection and having an automatic control function shall conform to the following standards:

(i) Measures have been taken to ensure the safety of carriage even in the event of an error.

(ii) In the event of an abnormality, measures can be taken to prevent the operation of the alarm system, the suspension of related equipment, and other damage to the cargo tank, etc.

(iii) It is possible to manually cancel the automatic control function.

Subsection 11 Environmental Control

(Environmental Control)

Article 218 When loading the cargo specified in the notification, the environmental control of the cargo tank and the pipe equipment pertaining

to the cargo shall be carried out in accordance with the provisions of the notification according to the type of cargo.

(Environmental control of hold areas, etc.)

Article 219 When flammable cargo is loaded into a cargo tank for which a secondary barrier is required, the hold area and the area between the walls of the cargo tank shall be made inert by dry inert gas. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

2. Vessels whose hold area and the area between the walls must be inert pursuant to the provisions of the preceding paragraph shall be equipped with inert gas equipment that complies with the requirements set forth in the following items:

(i) It must be able to supply inert gas that meets the following requirements:

(b) The oxygen content is less than 5% by volume.

(b) It shall not have any physical or chemical action with the materials and cargo of the compartment.

(ii) It must be equipped with a device capable of preventing the backflow of gas from the cargo.

(iii) When the inert gas system is not used, the cargo pipe equipment in the cargo area (excluding the connection to the hold area or the interwall area) shall be used. It is something that is separated from the following.

(4) A device shall be installed that continuously indicates the oxygen content of the gas in the inert gas supply pipe and issues an alarm when the oxygen content reaches 5 percent by volume.

(5) In addition to the equipment provided for in the preceding item, a device for inert gas indicating the temperature and pressure of the inert gas shall be installed as deemed appropriate by the Director of the Regional Transport Bureau having jurisdiction over the location of the ship.

Article 220 When cargo is loaded into a cargo tank that does not require a secondary barrier and is equipped with a cooling system, the hold area of the cargo tank shall be environmentally controlled by dry inert gas or dry air.

(Arrangement of equipment that generates inert gas, etc.)

Article 221 A passage leading directly to a residential area, etc., shall not be provided in the place where the equipment for generating inert gas is installed, except when the device is installed in the engine area.

(2) When a device that generates inert gas is installed in an area other than the cargo area, it shall be equipped with two check valves or equivalent devices to prevent the cargo gas from flowing back into the main inert gas pipe in the cargo area.

3. Combustion equipment for the production of inert gas shall not be installed in the cargo area.  
(Inert gas storage)

Article 222 When inert gas for environmental control is stored, it shall be stored in a container separate from the inert gas used for fire extinguishing.

2. When inert gas is stored at temperatures below 0 degrees Celsius, measures shall be taken to ensure that the temperature of the hull structure around the gas storage and supply equipment does not fall below the design temperature.  
(Arrangement of inert gas supply pipes)

Article 223 Inert gas supply pipes shall not be installed in residential areas, etc.  
(Installation of pipe equipment)

Article 224 A cargo tank shall be equipped with a tube device for the replacement of the gas in the cargo tank with another gas.  
(Gas sampling end of cargo tank and cargo pipe device)

Article 225 Cargo tanks and cargo tube equipment shall be fitted with a sufficient number of extraction terminals for the purpose of monitoring the gas concentration and oxygen content in the cargo tank and cargo tube equipment during the work on the cargo tank and cargo tube equipment.

2. The piping from the collection end referred to in the preceding paragraph shall be fitted with a valve and an airtight lid on the deck.

Subsection 12 Equipment for the use of cargo as fuel

(Use of Cargo as Fuel)

Article 226 Liquefied natural gas (methane and natural gas containing high concentrations of methane) The same shall apply hereinafter in this subsection and in Article 255. Cargo other than the above shall not be used as fuel on board. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

2. Liquefied natural gas shall not be used as fuel for equipment other than internal combustion engines, boilers and inert gas generators in the specified engine area. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

(Cargo-fueled internal combustion engine)

Article 226-2 An internal combustion engine that uses liquefied natural gas as fuel shall comply with the following requirements:

- (1) The flame during combustion shall not be visible.
- (ii) The temperature of the exhaust air in the exhaust pipe shall not exceed 535 degrees Celsius.
- (3) It is possible to confirm that exhaust air is not accumulating in the exhaust pipe before starting.

- (4) The operation of the fuel oil injection system must be confirmed before starting.
  - (5) The intake manifold, scavenging chamber, exhaust pipe, and crank chamber shall be equipped with pressure relief valves. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.
  - (6) A vehicle that supplies gas fuel to each cylinder by means of a common intake manifold shall be equipped with a device between the intake manifold and each cylinder to prevent the backflow of flame from each cylinder.
  - (vii) The crank chamber and cooling system shall be equipped with an independent ventilation system.
  - (8) The vents of the crank chamber, scavenging chamber and cooling system shall be equipped with a fixed gas detection device that meets the following requirements:
    - (b) An alarm shall be issued when the gas concentration reaches a value of 30 percent of the lower limit of the flammability limit.
    - (b) The supply of gaseous fuel shall be shut off before the gas concentration reaches a value of 60 percent (100 percent in the case of a crank chamber) of the lower flammability limit.
  - (9) There is no equipment or equipment in the crank chamber that could be a source of ignition.
  - (10) The exhaust pipe shall comply with the following requirements:
    - (b) It shall be independent of the exhaust pipes or flues of other equipment.
    - (b) There is no risk of accumulation of exhaust air.
    - (c) Measures have been taken to automatically shut off the supply of gas fuel in the event of abnormal combustion.
  - (11) In the event of an abnormal situation, measures must be taken to automatically switch the fuel to be used from gas fuel to fuel oil.
  - (12) The engine shall be equipped with a device that can automatically shut off the supply of gas fuel in the event of a shutdown of the internal combustion engine.
2. If the internal combustion engine referred to in the preceding paragraph uses an electric ignition device and no combustion is detected after starting, the supply of gas fuel must be automatically shut off and measures must be taken to prevent the exhaust from stagnating.

(Boiler fueled by cargo)

Article 226-2-2 A boiler that generates steam to supply a steam turbine used as a main engine and uses liquefied natural gas as fuel shall comply with the following requirements:

- (i) The requirements listed in Item 1 of Paragraph 1 of the preceding Article

- (ii) The temperature of the exhaust air in the flue shall not exceed 535 degrees Celsius.
- (iii) An appropriate burner capable of simultaneously or independently using oil and liquefied natural gas as fuel shall be provided.
- (4) An alarm device capable of monitoring the decrease in the pressure of the oil used as fuel and the failure of the fuel oil pump shall be provided.
- (5) The flue channel of the boiler shall conform to the following requirements:
  - (b) It shall be independent of the exhaust pipes or flues of other equipment.
  - (b) There is no risk of accumulation of exhaust air.
- (6) In the event of a interruption in the supply of gas fuel, it shall be able to automatically switch to the supply of fuel oil.
- (vii) The pipe supplying gas fuel to the burner shall be subject to the following measures:
  - (b) Gas fuel shall not be supplied until stable combustion is ensured.
  - (b) A shut-off valve that can be operated manually must be installed.
  - (c) A device that automatically eliminates exhaust air after the use of gas fuel shall be installed.

(Equipment for using cargo as fuel, etc.)

Article 226-3 Equipment and storage tanks for the use of liquefied natural gas as fuel shall be installed on the exposed deck in the cargo area.

However, this does not apply when the following equipment is installed.

- (i) Mechanical ventilation device referred to in Article 190, paragraph (1);
  - (ii) Stationary extinguishing gas fire extinguishing device that uses carbon dioxide as a fire extinguishing agent
  - (iii) Fixed gas detection devices referred to in Article 212, paragraph (1)
2. The apparatus and storage tanks referred to in the preceding paragraph shall have appropriate functions for replenishing internal combustion engines and other equipment that use liquefied natural gas as fuel.

(Gas Fuel Pipe)

Article 227 Gas fuel pipes to be placed in compartments other than the cargo area shall comply with one of the following requirements: However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

- (i) It shall have a double-pipe structure that meets the following requirements:
  - (b) The design pressure of the outer tube shall be equal to or greater than the maximum working pressure of the inner tube.

- (b) The space between the two pipes shall be pressurized with inert gas at a pressure higher than that of the gaseous fuel.
  - (ii) It shall be installed in a pipe or duct provided with an exhaust-type mechanical ventilation device that meets the following requirements:
    - The design pressure of the duct shall be equal to or greater than the maximum working pressure of the gas fuel pipe.
    - (b) It is capable of ventilating air of a volume of not less than thirty times the volume of the pipe or duct per hour.
    - (c) It must be able to maintain a pressure below atmospheric pressure.
    - (d) The electric motor that drives the exhaust fan is mounted on the outside of the pipe or duct.
    - (e) The exhaust fan is capable of shutting off the supply of gas fuel when the required air flow rate cannot be secured.
    - (f) The exhaust vent shall be located in a safe place away from equipment and facilities that may be ignition sources.
    - (g) It must be equipped with a fixed gas detection device that meets the following requirements:
      - (1) An alarm shall be issued when the gas concentration reaches 30 percent of the lower limit of the flammability limit.
      - (2) The supply of gaseous fuel shall be shut off before the gas concentration reaches 60 percent of the lower flammability limit.
  - 2. The exhaust-type mechanical ventilation device referred to in item (2) of the preceding paragraph shall be operated at all times when gas is present in the gas fuel pipe.
  - 3. Gas-fueled pipes with a gaseous fuel pressure exceeding 1 megapascal must meet one of the following requirements:
    - (i) The equipment that supplies gas fuel (or the main gas fuel valve pursuant to Article 229, if the main gas fuel valve is installed) to the internal combustion engine or other equipment that uses liquefied natural gas as fuel shall have a double-pipe structure.
    - (ii) If the air intake, exhaust and other openings of the duct are located in the cargo area, item (ii) of paragraph (1) (excluding (f) and (g)) shall apply. It must conform to the requirements of the following.
      - (Gas fuel pipe automatic valve)
- Article 228 A gas fuel pipe shall be fitted with two automatic valves conforming to the following requirements:
- (i) It must be a fail-closed type.
  - (ii) In the event of an abnormal situation in the gas fuel pipe, it shall be automatically opened so that it can be discharged to an open area away from equipment and facilities that are sources of ignition.
  - (iii) In the case of a system that supplies liquefied natural gas as fuel to multiple internal combustion engines or other equipment, the supply

of gas fuel to the other equipment shall not be interrupted by the operation of the automatic valve of one device.

(Main gas fuel valve)

Article 229 A gas fuel pipe shall be fitted with a main gas fuel valve conforming to the following requirements in the cargo area:

(i) The main gas fuel valve can be closed either inside or outside the compartment in which it is installed.

(ii) In the event of an abnormal situation, it shall be automatically closed.

(iii) In the case of a gas fuel pipe that supplies liquefied natural gas as fuel to multiple internal combustion engines or other equipment, the supply of gas fuel to the other equipment shall not be interrupted by the closure of one main gas fuel valve.

Article 230: Deletion[edit]

(Ventilation device, etc.)

Article 230-2 The specified engine area of a ship using liquefied natural gas as fuel shall be equipped with an appropriate mechanical ventilation device and a fixed gas detection device as provided for in Article 212, paragraph (1).

2. Ventilation ducts and exhaust vents of extraction pipes that may accumulate gas fuel inside shall comply with the following requirements:

(i) It must be located in a safe place outside the area of the specified institution.

(ii) It shall be equipped with a flame arrester capable of preventing fire from entering the ventilation duct and the exhaust port of the extraction pipe.

(Gas-free, etc.)

Article 231 Gas-fueled pipes in the engine area shall be provided with equipment for replacing the pipes with fresh air and for making the gas state in the pipes inert.

(Gas fuel pipe in enclosed area)

Article 232 When a gas fuel pipe is provided in an enclosed area, it shall be equipped with a fixed gas detection device that complies with the requirements set forth in each item of Article 212, paragraph (2).

#### Subsection 13 Limit of Filling

(Reference temperature)

Article 233 In this subsection, the reference temperature means the one specified in each of the following items according to the classification of the cargo tank:

(i) A cargo tank not equipped with a device for controlling the pressure and temperature of the cargo as provided for in Article 194, paragraph (1): The temperature corresponding to the gas pressure of the cargo at the pressure set by the relief valve (the temperature specified in the next item if the director of the regional transport bureau having

jurisdiction over the location of the vessel deems it acceptable to take into account the type of cargo tank and the ventilation device installed therein);

- (ii) a cargo tank equipped with a device for controlling the pressure and temperature of the cargo referred to in paragraph (1) of Article 194; the temperature of the cargo at the time of loading, transportation or unloading, whichever is higher.

(Loading Restriction Rate and Maximum Permissible Cargo Rate)

Article 234 The ratio of the capacity of the cargo to be loaded into the cargo tank to the volume of the cargo tank shall be less than or equal to the stowage limit rate calculated by the following formula:

$$LL=FL (\rho R / \rho L)$$

In this case,

LL is the stowage limit rate

FL refers to the maximum permissible cargo rate (the maximum permissible value of the ratio of the volume of the cargo to the volume of the cargo tank at the reference temperature. )

**$\rho R$  is the specific gravity of the cargo at the reference temperature**

**$\rho L$  is the specific gravity of the cargo at pressure and temperature at the time of loading**

- 2. The maximum permissible freight rate in the preceding paragraph shall be 0.98 (in the following cases, the value indicated by the Director of the Regional Transport Bureau having jurisdiction over the location of the ship).

- (i) When a cargo tank is fitted with a pressure relief valve that complies with the requirements of Article 198, paragraph (1), item (1)(b), and the director of the regional transport bureau having jurisdiction over the location of the vessel deems that the maximum allowable cargo rate exceeding 0.98 is acceptable in consideration of the shape of the cargo tank, the arrangement of the pressure relief valve, etc.
- (ii) When the Director of the Regional Transport Bureau having jurisdiction over the location of the vessel deems it necessary to set the maximum permissible freight rate to a value of less than 0.98 in consideration of the relationship between the specific gravity of the cargo loaded in the cargo tank and the strength of the cargo tank.

(List of Filling Limits)

Article 235 The owner of a vessel shall prepare a list of quota limits deemed appropriate by the Director of the Regional Transport Bureau or the classification society having jurisdiction over the location of the ship, and shall provide it to the master of the vessel concerned, which shall include the following matters:

- (i) Loading limit ratio (stated for each type of cargo, temperature at the time of loading, and maximum reference temperature)
- (ii) Setting pressure of pressure relief valves and special pressure relief valves;

2. The master shall keep the list referred to in the preceding paragraph on board.

Subsection 14 Electrical Installations

(Electrical Equipment)

Article 236 Electrical equipment shall not be installed in the place where the cargo of a ship carrying flammable cargo is likely to leak or become lodged. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

(Mutatis mutandis)

Article 237 The provisions of Article 302-4 and Article 302-5 of the Ship Equipment Regulations shall apply mutatis mutandis to liquefied gas bulk carriers.

Subsection 15 Protective Orthotics, etc.

(Protective orthotics)

Article 238 A ship shall be equipped with protective equipment capable of adequately protecting the whole body, which consists of the following items:

1. Gloves
2. Boots
3. Full-body protective clothing
- (4) Close-fitting protective glasses or face protection

(Safety Orthotics)

Article 239 A ship shall be equipped with three or more sets of safety equipment consisting of the following items in addition to firefighters' braces:

- (1) Self-contained breathing apparatus (capable of supplying air with a volume of 1,200 liters or more)
- (ii) Protective clothing, gloves and boots
- (3) A fireproof lifeline with a belt that will not be affected by cargo
4. Explosion-proof flashlight

2. The self-contained breathing apparatus referred to in item (1) of the preceding paragraph must comply with the following requirements.

(i) It shall be equipped with a device for supplying air composed of the following:

(b) Masks with a mask (limited to those that can always have positive pressure inside) )

(b) One fully filled container of air for each self-contained breathing apparatus;

(c) Air compressor for self-contained breathing apparatus

Manifold for filling air into a container that can supply air for self-contained breathing apparatus from a Niha air compressor

(ii) It must be able to be attached to the firefighter's brace.

(Storage of safety braces)

Article 240 The safety equipment referred to in paragraph (1) of the preceding Article shall be stored in a locker that complies with the following requirements:

- (i) It must be installed in a place that can be easily approached.
- (ii) There is a sign indicating that the safety brace is stored in an easily visible place.

Subsection 16 Stability in the event of damage

(Classification of ship type)

Article 241 Ships shall be classified as follows, and the classification shall be as prescribed by notification according to the type of cargo:

1. Type 1G vessel
2. Type 2G vessel
3. Type 3G Vessel

(Stability in the event of damage)

Article 242 The final condition of a vessel when it is damaged and flooded in the compartment and when balanced measures are taken shall conform to the requirements set forth in the following items: However, this does not apply if the director of the Regional Transport Bureau having jurisdiction over the location of the vessel deems that it is safe to take into account the size of the vessel in the case of a vessel other than a Type 1G vessel.

(1) Restoration force curve (refers to the recovery force curve in Article 2, Paragraph 8 of the Ship Stability Regulations (Ministry of Transport Ordinance No. 76 of Showa 31)). The same shall apply hereinafter. has a restorative force range of 20 degrees or more beyond the equilibrium position, and within the range of 20 degrees from the equilibrium position, the maximum residual recovery lever is 0.1 meter or more, and the area of the portion bounded by the horizontal axis and the restoration force curve is 0.0175 meters radians or more.

(ii) In the event of asymmetrical flooding, the angle of inclination shall not exceed 30 degrees.

(3) The lower edge of the opening, which may cause new flooding, shall not be submerged.

(4) The ability to operate an emergency power source.

2. The vessel shall have the necessary stability in all conditions of use to comply with the provisions of the preceding paragraph.
3. Vessels shall have sufficient stability even in the intermediate stage of flooding referred to in paragraph (1).

(Calculation of stability in the event of damage)

Article 243 The calculation of the stability of the damaged vessel shall be in accordance with the provisions of the following Articles to 246, and shall take into account the dimensional proportions of the ship, the arrangement of its flooded compartments, the shape and contents, the

distribution and specific gravity of the liquid to be loaded, and the effects of free surfaces.

(Flood rate of flooded compartments)

Article 244 Flood rate (refers to the flood rate in Article 2, Paragraph 21 of the Ship Compartment Regulations (Ordinance No. 97 of the Ministry of Transport of Showa 27)) The same shall apply hereinafter. Ninety-five (except in cases where the Director of the Regional Transport Bureau having jurisdiction over the location of the ship deems it acceptable to consider the structure of the ship). Sixty for places to load cargo and stored goods other than liquids, ninety-five for habitation, eighty-five for engines, ninety-five for vacant spaces, and between zero and ninety-five for places to hold liquids, as the Director of the Regional Transport Bureau having jurisdiction over the location of the vessel deems appropriate.

2. If the tank containing the liquid is damaged, it shall be assumed that the liquid has completely flowed out of the compartment and has been replaced by seawater to the position of the liquid level in its final equilibrium.

(Buoyancy of the ship's tower)

Article 245 The buoyancy of the ship's tower within the scope of the damage to the ship side envisaged in the following Article shall not be taken into account. provided, however, that if the non-flooded part of the tower outside the scope of the ship's damage is separated by a watertight bulkhead and the lower edge of the opening that may cause new flooding is not submerged, the buoyancy of the non-flooded portion may be considered.

(Assumption of damage area)

Article 246 The minimum scope of possible damage shall be as follows:

(1) Damage to the ship side

(b) Longitudinal range: The value calculated by the following formula or 14.5 meters, whichever is smaller:

$(1/3) L^{2/3}$  (m)

In this case,

L is the length of the ship in meters (hereinafter the same. )

(b) Lateral range: The summer waterline stipulated in Article 36 of the Regulations on the Fully Loaded Waterline (in the case of a vessel having a waterline full of seawater as provided for in Article 66 of the same Ordinance, the waterline full of seawater, In the case of a vessel that does not have a summer waterline or a waterline full of seawater, the value of one-fifth of the width of the vessel or eleven and five meters, whichever is smaller, when measured at right angles from the hull centerline from the hull skin on the horizontal plane of the waterline equivalent to the waterline full of seawater calculated in accordance with the provisions of Chapter III, Sections 1 and 2 of the same Order.

- (c) Vertical range: Above the mold baseline
- 2. Damage to the bottom of the vessel
  - (b) Longitudinal range: The value calculated by the following formula or 14.5 meters, whichever is smaller:  
(1/3) L2/3 (m)
  - (b) Lateral range: one-sixth of the width of the vessel or five meters (ten meters for the portion from the bow perpendicular to the third tenth of the L), whichever is smaller.
  - (c) Vertical range: One-fifteenth of the width of the ship, or two meters, whichever is less, when measured from the baseline.
- 2. In the assumption of the scope of damage set forth in the preceding paragraph, the scope of damage, including those specified in each of the following items, shall not be assumed according to the classification of the vessel listed in each of the following items. In this case, two adjacent transverse watertight partition walls (hereinafter referred to as "transverse partition walls"). If the distance between them is less than the longitudinal range of damage envisaged in the same paragraph, one of these two bulkheads shall be deemed to be absent.
  - (i) Type 2G vessels with a ship length of 150 meters or less (Type 2G vessels carrying cargo in stand-alone tanks referred to in Article 171, paragraph 2) designed with a maximum permissible setting pressure of 0.7 megapascals or more and a design temperature of 55 degrees Celsius or higher (hereinafter referred to as "Type 2 PG vessels"); Excludes. Engine room area (refers to the engine room area in Article 2, Paragraph 18 of the Ship Parcel Regulations) The same shall apply hereinafter. Horizontal bulkhead before and after dividing
  - (ii) Type 2PG vessels with a ship length of 150 meters or less and Type 3G vessels with a ship length of 80 meters or more: Transverse bulkheads (bulkheads with a refractive part and a staircase with a length of 3 meters or more (excluding stern bulkheads). Excludes. )
  - (iii) Type 3G vessels with a ship length of less than 80 meters in the engine room area (except for those deemed necessary to be considered by the Director General of the Regional Transport Bureau having jurisdiction over the location of the ship) and transverse bulkheads (bulkheads having a refractive part and a staircase with a length of 3 meters or more (excluding stern bulkheads). Excludes. )
- 3. If the inclination of the vessel is greater than the range of damage specified in paragraph (1) or the stability is worse due to damage in a range smaller than the range of damage specified in paragraph (1), the extent of damage in such small area shall be assumed.
- 4. In addition to what is provided for in paragraph (1), the part where the cargo area is located shall be taken into account the damage to the part from the outer plate to the position of the cargo tank as specified in the following Article.

5. In addition to the provisions of the preceding paragraphs, Article 44, Paragraph 1 of the Ship Parcel Regulations (limited to the part pertaining to Item 4) shall apply. and paragraph (3) (limited to the part pertaining to item (3)). The provisions of this paragraph shall apply mutatis mutandis to the assumption of the extent of damage to a vessel sailing in the polar sea and a liquefied gas bulk carrier.

(Location of cargo tank)

Article 247 Cargo tanks shall be provided in a position that conforms to the requirements set forth in each of the following items, at the rear of the bow bulkhead, respectively, in accordance with the classification set forth in each of the following items:

- (i) A cargo tank carrying cargo that would classify the vessel as a Type 1G vessel, a position that meets the following requirements:
  - (b) The distance from the ship's side skin in the horizontal plane referred to in Article 246, paragraph (1), item (b) is equal to or greater than the value specified in paragraph (b) of the same item.
  - (b) If the distance from the outer plate at any point of the bulkhead of the cargo tank is different, the distance from the outer plate of the cargo tank at any point shall be equal to or greater than the value listed in the lower column of the following table, depending on the internal volume of the cargo tank listed in the upper column of the following table.

Internal volume of cargo tanks at 20 degrees Celsius (cubic meters)	Distance (meters)
1,000 or less	0.8
More than 1,000 and less than 5,000	$0.75 + 0.2 V_c / 4,000$
5,000 to 30,000	$0.8 + V_c / 25,000$
More than 30,000	2.0
Remarks $V_c$ is the internal volume of the cargo tank at 20 degrees Celsius (cubic meters)	

- (c) The vertical distance from the base line is equal to or greater than the value specified in Article 246, paragraph (1), item (ii) (c).
- (ii) Cargo tanks other than the cargo tanks listed in the preceding item: Locations that meet the following requirements:
  - (b) In any place, the distance from the outer plate is not less than the value specified in the preceding item (b) (in the case of a cargo

tank carrying cargo that classifies the vessel as a Type 3G vessel, a distance of 0.8 meters or more).

- (b) The vertical distance from the base line is equal to or greater than the value specified in Article 246, paragraph (1), item (ii), item (c).

(Well)

Article 248 The wells provided in the cargo tank shall not protrude within the vertical range of damage to the bottom of the vessel pursuant to Article 246, paragraph (1), item (ii) (c).

2. Notwithstanding the provisions of the preceding paragraph, in the case of a vessel other than a Type 1G vessel, if it meets the requirements listed in the following items, it may be protruded within the scope of the same paragraph.

1. Be as shallow as possible.

(ii) The position of the bottom surface is higher than the following positions.

(b) If there is a double bottom, the position below the inner bottom plate at a quarter of the depth of the double bottom or 350 millimeters, whichever is smaller.

(b) In the absence of a double bottom, a position of 350 millimeters downward from the upper edge of the vertical range of damage to the bottom of the vessel referred to in Article 246, paragraph (1), item (2)c;

Article 249: Deletion[edit]

(fixed ballast)

Article 250 Fixed ballast shall not be provided in double-bottomed compartments of the cargo area. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

(Carriage of two or more types of cargo with different ship type requirements)

Article 251 When two or more types of cargo are carried at the same time, the type of vessel shall correspond to the cargo for which the most stringent type of cargo is required.

2. Notwithstanding the provisions of the preceding paragraph, the requirements for the location of individual cargo tanks may be the requirements for the type of vessel corresponding to each cargo to be carried in such cargo tanks.

(Mutatis mutandis)

Article 252 The provisions of Article 45, paragraph (1) and Article 110 of the Ship Compartment Regulations shall apply mutatis mutandis to liquefied gas bulk carriers. In this case, the term "the preceding article" in Article 110 of the same Order shall be read as "Article 246

of the Regulations on the Carriage and Storage of Dangerous Goods by Ship.”

Subsection 17 Work Requirements

(Restrictions on carry-ons)

Article 253 When entering the gas hazard zone of a vessel carrying flammable cargo, no material that could cause ignition shall be brought in, unless the area has been replaced by fresh air and the condition has been maintained.

(Carriage of cargo at low temperatures)

Article 254 When transporting cargo at low temperatures, the following provisions shall be followed:

(i) Cargo handling operations shall be carried out in such a way as to prevent defective temperature distribution to cargo tanks, pipe equipment, and their accessories.

(ii) When the cargo tank is cooled from atmospheric temperature, the cargo tank, pipe equipment and accessories thereof shall be cooled by the prescribed cooling method.

(Transfer of cargo)

Article 255 The master of a ship shall ensure that the control devices and alarm devices for the transfer of cargo are in good working order before the commencement of work on handling the cargo.

2. Prior to and during the commencement of cargo handling operations, the workers on board the vessel shall be responsible for the operation of the onshore facility (in the case of transferring cargo as fuel to another vessel that uses liquefied natural gas as fuel, the other vessel). The same applies to the next section. Meeting with workers (including emergency measures) ) must be done.

3. The loading speed of cargo shall be adjusted taking into account the piping of ships and onshore facilities.

4. Cargo shall not be transported by the Compressed Gas Method or the Compressed Air Act, except in the case of conformity with the requirements listed in the following items:

(i) The safety factor of the design of the cargo tank shall not be reduced even if the cargo is being transferred.

(ii) Measures shall be taken to prevent the release valve from opening during the transfer of cargo.

(Collection of cargo samples)

Article 255-2 When collecting a sample of cargo, it shall be done in accordance with the following:

(i) To be carried out under the supervision of the captain.

(ii) Workers shall wear protective clothing according to the nature of the cargo.

(3) Before collecting a sample, make sure that the collection device is properly connected.

- (4) After the sample is collected, make sure that the valve at the place where the sample was collected is closed.
- (5) To ensure that the collected cargo does not leak to the outside.

Subsection 18 Special Requirements

(Special Requirements)

Article 256 In addition to the provisions of the preceding Article, when transporting the cargo specified in the notification, the vessel concerned shall comply with the special requirements specified in the notification according to the type and nature of the cargo.

Section 3 Liquid Chemicals

Subsection 1 General Provisions

(Applicable)

Article 257 The provisions of this section shall apply to vessels carrying liquid chemicals in bulk (hereinafter referred to as "liquid chemical bulk carriers"). ) to the application. provided, however, that vessels that do not carry liquid chemicals other than common substances (limited to vessels that carry liquefied gas substances other than common substances in addition to common substances). This does not apply in the case of.

Article 257-2 Notwithstanding the provisions of the preceding Article, a liquid chemical bulk carrier (hereinafter referred to as a "liquid oil and fat bulk carrier") that does not carry liquid chemicals other than the liquid chemicals specified in the notification shall be used. Except for the provisions of Articles 308 to 314, the provisions of this section shall not apply.

2. Notwithstanding the provisions of the preceding Article and the preceding paragraph, the provisions of this Section shall not apply to vessels carrying liquid oil and fat bulk carriers that sail only in the flat water area referred to in Article 1, Paragraph 6 of the Ordinance for Enforcement of the Ship Safety Act (Ordinance No. 41 of the Ministry of Transport of Showa 38).

(Terminology)

Article 258 In this section, the following terms shall have the meanings set forth in each of the following items:

- (i) "Cargo area" means the following places:
  - (b) Cargo tanks, slop tanks, and cargo pump rooms
  - (b) Pump rooms, cofferdams, ballast areas or voids adjacent to cargo tanks or slop tanks;
  - (c) A place on the deck above the place listed in (a) and (b)
- (ii) Cargo pump room: Cargo that is a liquid chemical (hereinafter referred to as "cargo" in this section). It refers to the place where the pump and its accessories are located.

(iii) Pump room means a place where a pump handling ballast or fuel oil is located and its accessories are located, which is located in the cargo area.

Subsection 2 Placement, etc.

(Isolation of cargo tanks, etc.)

Article 259 Cargo tanks and slop tanks shall be isolated from habitual areas, business areas, engine areas and places of storage of drinking water and food by means of cofferdams, cargo pump rooms, fuel oil tanks or similar places.

(Arrangement of Residential Areas, etc.)

Article 260 Residential areas, etc., shall be within the cargo area (excluding the cargo pump room protrusion and the pump room protrusion that conform to the provisions of Article 30 of the Ship Fire Protection Structure Regulations). It must not be placed in the

(Cargo pump room)

Article 261 The cargo pump room shall comply with the requirements set forth in the following items:

(i) It must be easily accessible.

(ii) A person wearing a protective brace under Article 303 (or such safety brace in the case of a safety brace being furnished pursuant to the provisions of paragraph (1) of Article 304) shall be able to easily access the operating valve of all cargo.

(3) Facilities shall be provided for easily and quickly lifting injured persons in the room by means of a rescue line.

(4) The bilge in the room shall be treated by a bilge drainage system consisting of the following:

(b) Bilge discharge pump that can be operated from outside the room

(b) Slop tank for storing discharged bilge

Suitable fittings for transferring bilge stored in a slop tank onshore

2. The ladders and landings provided in the cargo pump room shall be provided with handrails.

3. The ladder provided in the cargo pump room shall comply with the requirements set forth in the following items:

(i) It must not be mounted vertically.

(ii) Landings shall be provided at appropriate intervals.

4. A pressure gauge displaying the pressure on the discharge side of the cargo pump shall be installed outside the cargo pump room.

5. If the machinery in the cargo pump room is driven by a shaft system that penetrates the bulkhead or deck, the part through which the drive shaft penetrates shall be provided with a gas-tight gland that can adjust the axial center.

(Passage leading into the cargo area)

Article 262 The passage leading into the cargo area shall be accessible directly from the open deck.

2. Notwithstanding the provisions of the preceding paragraph, a passage leading to a double bottom in the cargo area may pass through a cargo pump room, pump room, cofferdam or similar compartment only if the Director of the Regional Transport Bureau having jurisdiction over the location of the vessel deems it safe to do so.
3. The openings for entry and exit provided in the passages referred to in the preceding two paragraphs shall be of sufficient size.

(Removal of ignition source)

Article 263 Cargo with a fire risk specified in a notification (hereinafter referred to as "fire hazard cargo" in this section) Vessels shall not be equipped with equipment or facilities that may cause ignition in places where such cargo may leak or become lodged.

(Mutatis mutandis)

Article 264 The provisions of Article 156 shall apply mutatis mutandis to bulk carriers of liquid chemicals.

2. Article 28-2 of the Ship Fire Protection Structure Regulations (excluding the proviso) The provisions of Article 41 and Article 42, Paragraph 1 shall apply to liquid chemical bulk carriers (excluding the specified liquid chemical bulk carriers referred to in the following paragraph). It applies mutatis mutandis to the above. In this case, the term "independent cargo handling tool locker room" in Article 31 of the same Order shall be substituted for "cargo control room and separate cargo handling tool locker room", and in Article 32, paragraph 1 of the same order, "bulkhead and deck (in the case of limited coastal vessels, limited to bulkheads and decks that form the boundary of the engine area, pump room, and cooking room)" shall be substituted for "bulkhead and deck", and in Article 42, paragraph 1 of the same order, "gross tonnage of 500 Tankers of tons or more (excluding limited coastal vessels) The words "liquid chemical bulk carriers referred to in paragraph (2) of Article 264 of the Dangerous Goods Shipping and Storage Regulations" shall be read as follows:

3. The provisions of Article 27-3 to Article 27-11, Article 27-13, Paragraph 1 and Article 33 of the Ship Fire Protection Structure Regulations shall apply to specified liquid chemical bulk carriers (refers to liquid chemical bulk carriers that carry only the cargo specified in the notification). It applies mutatis mutandis to the above. In this case, the words "cargo vessels with a gross tonnage of 500 tons or more" in Article 27-7, Paragraph 1 and Article 27-11, Paragraph 1 of the same Order, and "cargo ships with a gross tonnage of 500 tons or more (excluding limited coastal vessels)" in Article 27-13, Paragraph 1 of the same Order are defined as "bulk carriers of specified liquid chemicals under Article 264, Paragraph 3 of the Regulations for the Carriage and Storage of Dangerous Goods," and "Ducts for ventilation (limited to ducts in the specific engine area, cooking room, and vehicle deck area in

the case of limited coastal vessels) The term "ventilation duct" is defined as "ventilation duct" and "location (in the case of limited near-shore vessels, limited to places other than the specified engine area, cooking room, and vehicle deck area)" is replaced by "place" and "roll-on/roll-off cargo area (in the case of limited near-sea vessels, limited to the specified engine area, cooking room, and vehicle deck area)." shall be read as "roll-on and roll-off cargo area".

#### Subsection 3 Drainage Facilities

(Pump drainage device)

Article 265 The ballast pipes, venting devices and similar devices of the dedicated ballast pumps and the dedicated ballast tanks shall be independent of the ballast pipes, venting devices and similar devices of cargo tanks, cargo pumps and cargo tanks.

2. Drainage and water injection facilities for special ballast tanks adjacent to cargo tanks shall not be provided in the residential area or engine area.

Article 266 Notwithstanding the provisions of paragraph (1) of the preceding Article, when water is injected by a water injection facility that meets the requirements set forth in the following items, ballast may be injected into the cargo tank by a special ballast water injection pump of the water injection facility.

(i) The water injection pipe shall not be connected to the cargo tank or the cargo pipe by a fixed connecting pipe and shall be fitted with a check valve.

(ii) Water shall be injected from the deck position of the cargo tank.

2. Notwithstanding the provisions of paragraph (2) of the preceding Article, if the water injection equipment is to be injected from the deck position of the ballast tank and a check valve is installed on the water injection pipe of the water injection facility, the equipment may be provided in the engine area.

Article 267 Cargo pump rooms, pump rooms, slop tanks, voids in the cargo area and bilge drainage systems in similar places shall be provided in the cargo area. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

#### Subsection 4 Firefighting Equipment

(Firefighting equipment in the cargo pump room)

Article 268 The cargo pump room of a vessel carrying the cargo specified in the notification shall be equipped with a fixed extinguishing gas extinguishing device that uses carbon dioxide gas as a fire extinguishing agent. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

2. When a fixed fire-extinguishing gas fire extinguishing device is installed pursuant to the provisions of the preceding paragraph, it must be installed in accordance with the following items.
    - (1) Pipes shall be arranged in such a way as to effectively disperse fire-extinguishing gases.
    - (ii) The control device shall be located as concentrated as possible in a position that is easily accessible and that is not likely to be interrupted by a fire in the area releasing extinguishing gases.
    - (3) The cargo pump room that emits fire-extinguishing gas shall be equipped with an automatic audible alarm system that notifies the release of fire-extinguishing gas in advance.
    - (4) The alarm device referred to in the preceding item shall be operated for an appropriate period of time prior to the release of fire-extinguishing gas, and shall be used for flammable cargo (hereinafter referred to as "flammable cargo" in this section) as specified in the notification. In the case of a cargo pump chamber to which the cargo is located, it shall operate safely even in a mixture of gas and air generated from the cargo.
    - (5) Gas storage vessels shall be located in a location that meets the following requirements:
      - (b) A safe place other than the place where the gas is emitted and can be easily approached (except in front of the bow bulkhead). ) to be.
      - (b) An effective ventilation system is provided.
      - (c) Have a doorway leading to an open deck. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.
      - (d) The doors of the entrances and exits and the bulkheads and decks forming the boundaries of the place shall be gastight.
      - (e) The entrance and exit doors shall open to the outside.The bulkheads and decks of the heni shall be adequately heat-protected so that the internal temperature does not exceed 55 degrees Celsius.
    - (6) The gas storage vessels referred to in the preceding paragraph shall be stored so that they are not likely to fall, fall or be impacted, and can be removed for refilling and inspection.
    - (vii) Take measures to safely check the amount of gas in the gas storage vessel referred to in subparagraph (5);
    - (8) The place where the control device is located shall be provided with a clear instruction manual on the operation of the device.
  - (3) A stationary fire-extinguishing gas fire extinguishing device that uses carbon dioxide gas as a fire extinguishing agent referred to in paragraph (1) shall have a gas of not less than 45% of the total volume of the cargo pump room.
4. Precautions regarding the use of the fixed fire extinguishing gas fire extinguishing device referred to in paragraph (1) shall be posted at the

control place of the fixed fire extinguishing gas fire extinguishing device.

Article 269 The deck, which is the cargo area of a ship carrying the cargo specified in the notification (excluding the cargo area of the ship specified in the notification) shall be equipped with a fixed deck foam device that complies with the requirements listed in the following items: However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

- (i) Cargo to be transported (except for those whose foam is not effective in extinguishing fires). Effective foam undiluted solution (limited to non-regular protein foam). It must be able to supply.
- (ii) Cargo tank area (means a place on the deck at the top of a cargo tank). The same shall apply hereinafter. The entire area and the top deck of the cargo tank are damaged and are capable of releasing foam.
- (3) It must be easy and quick to operate.
- (4) Bubbles must be able to be released by a monitor and a portable foam nozzle.
- (5) Each monitor shall be capable of releasing foam at a rate of not less than 50 per cent of the rate of release of foam in the supply rate of the foam solution in subparagraph 8.
- (6) The portable foam nozzle shall comply with the following requirements:
  - (b) It must be easy to work with and be able to release bubbles in places beyond the reach of the monitor.
  - (b) It is capable of releasing foam at a rate of release equal to or greater than the rate of release of foam at the rate of supply of foam solution of 400 liters per minute.
  - (c) The emission distance of the foam in a windless state is 15 meters or more.
  - (d) It must have a digesting hose as stipulated in Article 5, Item 1(e) of the Ship Fire Fighting Equipment Regulations.
- (vii) The pipes that supply the foam solution to the monitors shall be fitted with a valve in front of the position of each monitor to shut off the damaged part in the event of damage to the tube.
- (8) The supply rate of the foam solution shall be equal to or greater than the largest of the following rates:
  - (b) Cargo deck area (the most substantial cargo tank area of the vessel multiplied by the total length in the bow and tail direction). 2 liters per minute per square meter
  - (b) 20 liters per minute per square meter of the horizontal area of the cargo tank with the largest horizontal area;
  - (c) 10 liters per square meter per square meter of deck area at the place where the foam is to be released in front of the monitor in

- front of the monitor with the highest foam release rate (1,250 liters per minute if the amount of foam solution to be released at the location is less than 1,250 liters per minute) (in the case of a vessel with a deadweight of less than 4,000 tons, the release rate deemed appropriate by the Director of the Regional Transport Bureau having jurisdiction over the location of the vessel)
- (9) The amount of undiluted foam is sufficient to generate foam for more than 30 minutes at the supply rate set forth in the preceding item.
- (10) The foam stock solution shall not produce a harmful amount of sediment when mixed with fresh water or seawater, and shall be stable for long-term storage.
2. When a fixed deck foam device is installed pursuant to the provisions of the preceding paragraph, it must be provided in accordance with the following items.
- (i) The control device shall be located in a suitable place outside the cargo tank and adjacent to the cargo tank, adjacent to the living quarters and in a position where it can be easily approached and operated in the event of a fire in the place of emitting foam.
- (ii) The monitors shall be arranged in such a way as to meet the following requirements:
- (b) The place where the bubbles are released must be in front of the monitor.
- (b) The company is capable of releasing not less than 10 liters of foam solution per minute per square meter of deck area at the place where the foam is to be released (or 1,250 liters or more of foam solution per minute if the amount of foam solution to be released at the site is less than 1,250 liters per minute). provided, however, that in the case of a vessel with a deadweight tonnage of less than 4,000 tons, a foam solution of a release rate deemed appropriate by the Director of the Regional Transport Bureau having jurisdiction over the location of the vessel may be released.
- (c) The distance to the farthest point of the place where the bubbles are to be emitted shall not exceed 75% of the distance of the emission in windless conditions.
- (3) Four or more portable foam nozzles shall be provided.
- (iv) Two strips of foam by a single hose can be discharged into any part of the cargo tank area.
- (5) One monitor and one hose coupling plug for portable foam nozzles shall be placed on both the left and right sides of the front end of the stern tower or on the left and right sides of the living area facing the cargo area.
3. The cargo area of the vessel specified in the notification referred to in paragraph (1) shall be equipped with additional fire-extinguishing equipment effective for the cargo.

Article 269-2 The deck, which is the cargo area of the ship carrying the cargo specified in the notification (excluding the cargo area of the ship specified in the notification). A fixed deck foam device (refers to a fixed deck foam device as defined in Article 5, Item 8 of the Ship Fire Equipment Regulations). It must be equipped. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

2. The provisions of Article 57-3, Paragraph 1 of the Ship Fire Fighting Equipment Regulations shall apply mutatis mutandis to the case where a fixed deck foam device is installed pursuant to the provisions of the preceding paragraph.
3. The cargo area of the vessel specified in the notification referred to in paragraph (1) shall be equipped with additional fire-extinguishing equipment effective for the cargo.

Article 270 A vessel carrying the cargo specified in the notification shall be equipped with an appropriate portable fire extinguisher for the cargo to be carried.

(Firefighter orthotics, etc.)

Article 271 Four sets of firefighter braces shall be provided for immediate use on vessels carrying fire hazard cargo, and two sets of firefighter equipment on vessels not carrying such cargo, at a distance from each other that can be easily accessed. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

2. The provisions of Article 164, paragraph (3) shall apply mutatis mutandis to ships equipped with firefighters' equipment pursuant to the provisions of the preceding paragraph.

(Mutatis mutandis)

Article 272 The provisions of paragraph (3) of Article 165 shall apply to bulk carriers of liquid chemicals (excluding those not carrying fire hazard cargoes). It applies mutatis mutandis to the above. In this case, in the same paragraph, the term "outside the cargo area" refers to "the front end of the stern tower", and the term "to a place where the water supply to the damaged area can be cut off in the event of damage to the water transmission pipe of the vessel is deemed safe by the director of the regional transport bureau having jurisdiction over the location of the vessel in consideration of the capacity of the pump (in the case of a water spray pipe, an interval not exceeding 40 meters)" is substituted for "an interval not exceeding 40 meters". It shall be read as:

2. The provisions of paragraph (4) of Article 57 of the Regulations on Ship Fire Fighting Equipment shall apply mutatis mutandis to bulk carriers of liquid chemicals with a load capacity of 8,000 tons or more carrying cargo with a flash point of 60 degrees Celsius or less.

3. The provisions of paragraphs (5) to (7) of Article 68 of the Regulations on Fire Fighting Equipment for Ships shall apply mutatis mutandis to bulk carriers of liquid chemicals of 500 tons or more gross tonnage carrying cargo with a flash point of 60 degrees Celsius or less. In this case, the term "continuous monitoring device for hydrocarbon gas concentration" in paragraph 6 of the same Article shall be read as "continuous monitoring device for the concentration of flammable gases".

(Special Provisions for Application of Provisions of the Ship Fire Equipment Regulations)

Article 273 The provisions of Article 57, paragraph (1) and Article 63 of the Regulations on Ship Fire Fighting Equipment shall not apply to bulk carriers of liquid chemicals.

Article 274 Provisions of the Regulations on Ship Fire Fighting Equipment (excluding the provisions of Article 57, Paragraph 1, Article 63 and Article 64-3 of the same Order) A liquid chemical bulk carrier shall be deemed to be a third-class vessel under Article 1-2, paragraph (1) of the same Order (a third-class vessel with a gross tonnage of 2,000 tons or more in the case of the application of the provisions of Article 53, paragraph (1), Article 54, paragraph (1) and Article 56, paragraph (1) and paragraph (2) of the same Order).

Subsection 5 Cargo Tanks, etc.

(Materials for cargo tanks, etc.)

Article 275 The materials of cargo tanks, cargo pipe equipment, slop tanks and other structural members of the area where cargo may leak of cargo of a vessel carrying the cargo specified in the notification shall conform to the standards prescribed in the notification according to the type of cargo. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

2. Materials with a melting point of 925 degrees Celsius or less shall not be used in the material of the cargo tube equipment outside the cargo tanks of ships carrying cargo with a flash point of not more than 60 degrees Celsius. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

(Cargo tank)

Article 276 Cargo tanks shall, depending on the type of cargo, conform to the requirements set forth in the following items:

- (i) It shall have an appropriate structure and strength.
- (ii) It must be properly worked.
- (3) It must be of the type specified in the notification.

(Grounding of cargo tank)

Article 277 The provisions of Article 178 shall apply to the provision of stand-alone tanks (tanks that do not form part of the hull) of ships carrying fire hazard cargo. It applies mutatis mutandis to the above. (Cargo Pipe Equipment Fittings)

Article 278 The fittings of the cargo pipe apparatus shall be welded joints. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

(Arrangement of cargo pipe equipment, etc.)

Article 279 Cargo pipe equipment shall be arranged in accordance with the following items:

- (i) Residential areas, etc., and engine areas (excluding cargo pump rooms and pump rooms); Do not place it in the
- (ii) In accordance with the position of the cargo tank as provided for in Article 314, it shall be placed from the outer plate to the inside. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

Article 280 Cargo pipe equipment under the exposed deck shall not be arranged through adjacent cargo tanks, ballast tanks, empty tanks, cargo pump rooms and pump room bulkheads, except as provided in the following items:

- (i) The cargo to be transferred shall not cause a dangerous reaction in the event of damage to the cargo pipe equipment.
- (ii) The cargo tube device shall be fitted with a shut-off valve that can be operated from the exposed deck in the part of the cargo tank through which the cargo tube device passes.

2. Notwithstanding the provisions of item (2) of the preceding paragraph, if the cargo pipe device referred to in the same item complies with any of the requirements listed in each of the following items, it is not necessary to install the stop valve referred to in item (2) of the same paragraph.

- (i) A cargo pipe device located in the cargo pump room adjacent to a cargo tank, and a stop valve that can be operated from the exposed deck is attached to the tank bulkhead, and a valve is also installed between the stop valve and the cargo pump.
- (ii) A fully enclosed hydraulic actuated valve conforming to the following requirements shall be installed on the outer part of the cargo tank of the cargo pipe device:
  - (b) It must be attached to the bulkhead of the cargo tank to be connected.
  - (b) In order to protect it from damage, it must be installed in isolation from the outer plate at an appropriate distance.
  - (c) It must be operated from the exposed deck.

Article 281 When a cargo pump is connected to two or more cargo tanks, a shut-off valve shall be installed in the pipe leading to each tank in the cargo pump room.

Article 282 Cargo pipe devices that penetrate bulkheads shall be arranged in such a way as not to cause excessive stress on the bulkheads.

2. Bolted flanges shall not be used for cargo pipe devices that penetrate bulkheads.

(Cargo transfer device)

Article 283 The equipment for the transfer of cargo shall comply with the requirements set forth in the following items:

(i) A stop valve for controlling the transfer of manually operated cargo shall be installed near the penetration of the inlet pipe and discharge pipe connected to the cargo tank. However, this does not apply to the discharge pipe equipped with a dedicated deep well pump.

(ii) A stop valve shall be attached to the loading and unloading hose connection.

(iii) The cargo pump and similar equipment shall be equipped with a remote-controlled shut-off device.

2. The equipment listed in each item of the preceding paragraph shall be used under the exposed deck (excluding the cargo pump room). It shall not be installed in the

(Grounding, etc.)

Article 284 The provisions of Articles 186 and 187 shall apply mutatis mutandis to cargo pipe equipment and cargo handling hoses of ships carrying fire hazard cargo, respectively.

(Cargo pipe equipment that may cause dangerous effects, etc.)

Article 285 Cargo pumps and cargo pipe equipment shall be separated from pumps and pipe equipment relating to substances that are likely to cause dangerous effects by interacting with the cargo to be transferred.

2. Cargo tube equipment shall not be placed in tanks carrying substances that may cause hazardous effects by interacting with the cargo to be transferred. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

Subsection 6 Ventilation devices in cargo areas

(Ventilation device for cargo pump room, etc.)

Article 286 The cargo pump room of a vessel carrying cargo specified in a notification and other enclosed places where cargo handling operations are carried shall be equipped with mechanical ventilation devices that comply with the requirements set forth in the following items:

(i) It must be able to be operated from outside the location.

(ii) It shall be capable of ventilating air with a volume of not less than thirty times the volume of the place in question per hour.

- (3) It must be a fixed type and an exhaust system (or an air supply system in the case of a prime mover that drives a cargo pump).
  - (iv) The exhaust port shall be provided at a distance of at least 10 meters horizontally from the air intake or other openings of the ventilation system at a place outside the cargo area, and shall be capable of discharging exhaust air upward.
  - (5) The ventilation duct shall not pass through the residential area or the engine area.
  - (6) A protective wire mesh with a mesh of not more than 13 millimeters shall be attached to the outside of the opening of the duct for ventilation.
  - (vii) It must be equipped with spare parts for the fan.
2. In the cargo pump room of a ship carrying liquid chemicals other than the cargo stipulated in the preceding paragraph, an exhaust-type mechanical ventilation device (refers to an exhaust-type mechanical ventilation device as defined in Article 40 of the Ship Fire Prevention Structure Regulations). It must be equipped.
3. Precautions regarding the use of ventilation equipment in the place specified in paragraph (1) shall be posted outside the place specified in paragraph (1).

(Ventilation equipment for pump rooms, etc.)

Article 287 Pumping rooms of vessels carrying cargo specified in the notification and other places in the enclosed cargo area to which persons are entered, excluding the places specified in the preceding Article, shall be equipped with a mechanical ventilation device that conforms to the requirements listed in the following items.

- (i) It shall be capable of ventilating air of a volume of not less than twenty times the volume of the place in question per hour.
- (ii) The requirements listed in Item 1 of Paragraph 1 of the preceding Article

(Double bottom aeration device, etc.)

Article 288 Double bottoms, cofferdams and other places where gas of cargo may be lodged in the cargo area of a vessel carrying the cargo specified in the notification (excluding the places specified in the preceding two articles) shall be equipped with a fixed mechanical ventilator that meets the requirements set forth in the following items or a portable mechanical ventilator deemed appropriate by the director of the regional transport bureau having jurisdiction over the location of the ship.

- (i) It shall be capable of ventilating air in a volume of at least eight times the volume of the place per hour.
- (ii) The blower shall be installed away from the opening for traffic.

(Ventilation system in places where gas may stagnate)

Article 289 Mechanical ventilation devices installed on vessels carrying cargo specified in a notification that ventilate in places where gases

generated from such cargo are likely to accumulate shall comply with the requirements set forth in the following items:

- (i) The electric motor that drives the fan must be provided outside the ventilation duct.
- (ii) Fans and ducts shall not generate sparks.

Subsection 7 Temperature Control Device

(Temperature control)

Article 290 The heating and cooling equipment of the cargo shall comply with the requirements set forth in the following items:

- (i) The heat carrier shall be suitable according to the nature of the cargo.
- (ii) Each cargo tank shall have a valve for separating the circulation path of the heat medium and controlling the flow of the heat medium.
- (3) In the case of heating or cooling the cargo specified in the notification, the circulation path of the heat medium shall be one of the following:
  - (b) Not used for any purpose other than heating or cooling of cargo, and which does not circulate in the engine area.
  - (b) Items that do not circulate in the tank on which the cargo is loaded.
  - (c) When the heat medium is used for purposes other than heating or cooling of cargo, or when circulating in the engine area, a sampling facility is provided in the cargo area to inspect the contamination of cargo with the heat medium in advance.

2. Vessels equipped with cargo heating or cooling devices shall be equipped with the following devices:

- (i) A device for measuring the temperature of the cargo;
- (ii) An alarm device to monitor the temperature of the cargo (only when there is a risk of a dangerous condition due to overheating or overcooling); )

Article 291 If the cargo is equipped with heating and cooling devices, the pressure in the equipment shall be kept at a pressure higher than the maximum pressure received by the cargo in the cargo tank.

Subsection 8 Cargo tank venting device, etc.

(Cargo tank aerator)

Article 292 Ships shall be equipped with venting devices for cargo tanks in accordance with the type of cargo, as prescribed in the notification.

2. The ventilation device installed pursuant to the provisions of the preceding paragraph must comply with the following requirements.

- (i) Open venting device (refers to an aeration device that is not fitted with an automatic breathing valve to control the pressure in the cargo tank). In this case, it must meet the following requirements.
- (b) Gases generated from cargo shall not be allowed to stagnate in the vicinity of the deck, and shall not be allowed to enter the

- residential area, etc., and the engine area (in the case of aeration devices related to flammable cargo, the living area, the engine area, and the place where there is a risk of fire).
- (b) Measures have been taken to prevent water from entering the cargo tank, and the tank shall have an exhaust port that ejects upward without obstructing the flow of gas.
  - (c) It must be able to handle cargo without causing excessive pressure on the cargo tank.
  - (d) The pipe system must be equipped with an appropriate drain removal device.
  - (e) Each cargo tank shall have a separate vent pipe. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so. The vent pipe of the hoo shall not be fitted with a shut-off valve.
- (ii) Controlled venting device (refers to a venting device to which an automatic breathing valve is installed to control the pressure in the cargo tank). The following requirements must be met.
- (b) A device or pressure sensor for controlling the pressure in the cargo tank that occurs during cargo handling or during the pumping and draining of ballast water (limited to those installed in each tank and equipped with an alarm device capable of monitoring the pressure in the cargo control room or in the place where cargo operations are normally performed); It must be equipped with the following.
    - (b) The shut-off valve is not installed before or after the automatic breathing valve.
    - (c) The exhaust vent shall comply with the following requirements:
      - (1) Six meters above the exposed deck (if the exhaust vent is within four meters of the Gangway at a horizontal distance, the Gangway) (if the exhaust vent is within four meters of the Gangway) (if it is vertically upward at a speed of not less than 30 meters per second, and is equipped with such a high-speed exhaust system capable of exhausting at a speed of not less than 30 meters per second and which is deemed appropriate by the Director of the Regional Transport Bureau having jurisdiction over the location of the ship); It shall be provided in a position with a height of 3 meters or more.
      - (2) It shall be located at a distance of 10 meters or more from air intakes and other openings in residential areas, business areas, and engine areas, as well as places where there is a risk of fire.
    - (d) In the case of a vent system for a cargo tank carrying fire hazard cargo, the exhaust vent of the vent shall be equipped with a flame arrester deemed appropriate by the Director of the Regional Transport Bureau having jurisdiction over the location of the ship.

(e) Requirements listed in (a) to (e) of the preceding item

(Flame Arrester)

Article 293 The flame arrester installed in the exhaust port of the vent of the aerator of the cargo tank shall be easily removable.

(Preventing excessive water high pressure in cargo tank)

Article 294 A cargo tank shall be equipped with appropriate equipment to ensure that the liquid level of the cargo does not exceed a set height so as not to cause excessive water pressure force in the cargo tank.

Subsection 9 Measuring Devices and Gas Detection Devices

(Measuring device)

Article 295 The measuring device installed in the cargo tank shall be of the type prescribed in the notification according to the type of cargo to be measured.

(Measurement method)

Article 296 An open-type measuring device equipped in a cargo tank to measure the amount of liquid in the cargo specified in the notification (a measuring device that uses an opening in the tank and to which the measuring person is exposed to the cargo when used) or a restricted measuring device (a measuring device that is completely closed when not in use and whose cargo is discharged into the atmosphere when it is in use). When measuring by the above, the pressure of the cargo tank must be released in advance.

(Gas detection device)

Article 297 A vessel carrying the cargo specified in the notification shall be equipped with two or more effective gas detection devices specified in the notification. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

2. One or more of the gas detection devices referred to in the preceding paragraph must be portable.

Subsection 10 Environmental Control

(Environmental Control)

Article 298 When transporting the cargo specified in the notification, the environmental control of the cargo tank and the cargo pipe equipment shall be carried out in accordance with the provisions of the notification according to the type of cargo.

Article 299 Vessels that perform environmental control of cargo tanks and cargo pipe equipment pursuant to the provisions of the preceding Article shall comply with the requirements set forth in the following items:

(i) Inerting method (refers to a method of filling cargo tanks and cargo pipe equipment with dry inert gas); The same shall apply hereinafter. Vessels that are subject to environmental control shall be equipped with inert gas equipment that meets the following requirements:

- (b) The pressure in the environmental control area must be able to be maintained at least 0.007 megapascals at all times.
- (b) The pressure in the cargo tank shall not increase above the set pressure of the automatic breathing valve of the cargo tank.  
There is no risk of generating static electricity when the inert gas is ejected into the tank (only when flammable cargo is loaded in the cargo tank). ) 。
- (ii) Encapsulation method (means a method of filling a cargo tank and a cargo pipe apparatus with a liquid or gas to prevent contact between air and cargo); The same shall apply hereinafter. Vessels that are subject to environmental control shall be equipped with an encapsulation media supply device that meets the following requirements.
  - (b) The requirements listed in (a) and (b) of the preceding item
  - (b) There is no risk of generating static electricity when the encapsulation medium is ejected into the tank (only when flammable cargo is loaded into the cargo tank). ) 。
- (iii) Drying method (refers to a method of filling cargo tanks and cargo pipe equipment with dry gas with a dew point of 40 degrees Celsius or less under atmospheric pressure) The same shall apply hereinafter. Vessels that use dry nitrogen as a drying medium shall be equipped with a dry nitrogen supply device that complies with the following requirements.
  - (b) Requirements listed in subparagraph (2) (a) and (b)
  - (b) There is no risk of generating static electricity when dry nitrogen is ejected into the tank (only when flammable cargo is loaded into the cargo tank). ) 。
- (4) Vessels that are subject to environmental control by the drying method and that use desiccant shall be equipped with a sufficient amount of desiccant in consideration of the duration of the voyage.
- (5) Vessels that exercise environmental control by means of inactivation, encapsulation or drying using dry nitrogen shall take measures to monitor that an appropriate environment is maintained.

#### Subsection 11 Electrical Installations

##### (Electrical Equipment)

Article 300 The materials used in the electrical equipment of the vessels carrying the cargo specified in the notification shall be equipped with appropriate protective measures to prevent contact of the cargo with gases.

Article 301 A vessel carrying fire hazard cargo shall not install electrical equipment in a place where there is a risk of leakage or stagnation of gas generated by such cargo. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

(Mutatis mutandis)

Article 302 The provisions of Article 302-4 and Article 302-5 of the Ship Equipment Regulations shall apply mutatis mutandis to ships carrying cargo with a flash point of 60 degrees Celsius or less.

Subsection 12 Protective Orthotics, etc.

(Protective orthotics)

Article 303 A ship shall be equipped with protective equipment capable of adequately protecting the whole body, which consists of the following items:

(1) An apron of appropriate size

2. Gloves

3. Boots

4. Full-body protective clothing

(v) Close-fitting protective glasses or face protection

2. The items listed in items 1 to 4 of the preceding paragraph must be chemically resistant.

(Safety Orthotics)

Article 304 A vessel carrying the cargo specified in the notification shall be equipped with three or more sets of safety equipment consisting of the following items:

(1) Self-contained breathing equipment (one that can continuously supply air for more than 20 minutes)

(ii) Close-fitting protective glasses, protective clothing, gloves and boots

(3) A fireproof lifeline with a belt that will not be affected by cargo

4. Explosion-proof flashlight

2. The self-contained breathing apparatus referred to in item (1) of the preceding paragraph must comply with any of the requirements listed in each of the following items.

(i) It shall be equipped with a device for supplying air composed of the following:

(b) One fully filled container of air for each self-contained breathing apparatus.

(b) Air compressor for self-contained breathing equipment

Manifold for filling air into a container that can supply air for self-contained breathing apparatus from a halo air compressor

(ii) Each self-contained breathing apparatus shall be equipped with a container capable of supplying a volume of air of not less than 6,000 liters.

3. The safety equipment referred to in paragraph (1) shall be stored in a locker that complies with the requirements listed in the following items.

(i) It must be installed in a place that can be easily approached.

(ii) There is an indication that the safety equipment is stored.

(Air supply device)

Article 305 A vessel carrying the cargo specified in a notification shall be equipped in the cargo pump room pertaining to the cargo and equipped with a pump-type breathing apparatus that meets the requirements set forth in the following items and an air compressor capable of filling the container of the breathing apparatus with compressed air:

- (i) It shall have an appropriate hose connection.
- (ii) It shall be equipped with a container capable of continuously supplying low-pressure air for more than 120 minutes.

(Respiratory protective equipment for emergency evacuation, etc.)

Article 306 A vessel carrying the cargo specified in the notification shall be equipped with appropriate respiratory protection and eye protection for emergency escape at the same rate as the number of passengers on board.

2. The respiratory protective equipment referred to in the preceding paragraph shall be marked to the effect that it shall not be used for the purpose of fire extinguishing and cargo handling.

(Decontamination showers, etc.)

Article 307 Decontamination showers and eyewash devices that conform to the following requirements shall be provided in easily accessible places on the deck:

- (i) Appropriate indications must be made.
- (ii) It must be usable in all weather conditions.

Subsection 13 Stability in the event of damage

(Classification of ship type)

Article 308 Ships shall be classified as follows, and the classification shall be as prescribed in the notification according to the type of cargo:

- 1 Type: One Ship
2. Type 2 Ship
3. Type 2K vessels
4. Type Mifune

(Stability in the event of damage)

Article 309 The final condition of a vessel when it is damaged and flooded in the compartment and when balanced measures are taken shall conform to the requirements of the following items: However, this does not apply if the Director of the Regional Transport Bureau having jurisdiction over the location of the vessel deems that it is acceptable to consider the size of the vessel in the case of a vessel other than a Type 1 vessel.

- (i) The recovery force curve has a recovery force range of 20 degrees or more beyond the equilibrium position, and within the range of 20 degrees from the equilibrium position, the maximum value of the residual recovery lever is 0.1 meter or more, and the area of the portion bounded by the horizontal axis and the recovery force curve is 0.0175 meters radians or more.

(ii) In the event of asymmetrical flooding, the angle of inclination shall not exceed 25 degrees. However, if the deck is not submerged at all, it can be increased to 30 degrees.

(3) The lower edge of the opening, which may cause new flooding, shall not be submerged.

(4) The ability to operate an emergency power source.

2. The vessel shall ensure that the stability necessary to comply with the provisions of the preceding paragraph is maintained in all conditions of use (excluding ballast conditions). It must have.

3. Vessels shall have sufficient stability even in the intermediate stage of flooding referred to in paragraph (1).

(Calculation of stability in the event of damage)

Article 310 In addition to the provisions of the following Articles to 313, the calculation of the stability in the event of damage shall take into account the dimensional proportions of the ship, the arrangement of its flooded compartments, the shape and contents, the distribution and specific gravity of the liquids to be loaded, and the effects of free surfaces.

(Flood rate of flooded compartments)

Article 311 The flood rate shall be between 60 for places loaded with cargo and stored goods other than liquids, 95 for places used for habitation, 85 for places used for engines, 95 for vacant areas, and between 0 and 95 for places containing liquids, and shall be deemed appropriate by the Director General of the Regional Transport Bureau having jurisdiction over the location of the ship.

2. If the tank containing the liquid is damaged, it shall be assumed that the liquid has completely flowed out of the compartment and has been replaced by seawater to the position of the liquid level in its final equilibrium.

(Buoyancy of the ship's tower)

Article 312 The buoyancy of the ship's tower within the scope of the damage to the ship side envisaged in the following Article shall not be taken into account. provided, however, that if the non-flooded part of the tower outside the scope of the ship's damage is separated by a watertight bulkhead and the lower edge of the opening that may cause new flooding is not submerged, the buoyancy of the non-flooded portion may be considered.

(Assumption of damage area)

Article 313 The minimum scope of possible damage shall be as follows:

(1) Damage to the ship side

(b) Longitudinal range: The value calculated by the following formula or 14.5 meters, whichever is smaller:

(1/3)  $L^{2/3}$  (m)

(b) Lateral range: The summer waterline stipulated in Article 36 of the Regulations on the Fully Loaded Waterline (in the case of a vessel

having a waterline full of seawater as provided for in Article 66 of the same Ordinance, the waterline full of seawater, In the case of a vessel that does not have a full waterline in summer or a waterline full of seawater, the value of one-fifth of the width of the vessel or 11.5 meters, whichever is smaller, when measured at right angles from the hull centerline from the hull skin on the horizontal plane of the waterline corresponding to the waterline full of seawater calculated in accordance with the provisions of Chapter III, Sections 1 and 2 of the same Order.

(c) Vertical range: Above the mold baseline

2. Damage to the bottom of the vessel

(b) Longitudinal range: The lesser of the value calculated by the following formula or 5 meters (14.5 meters for the part from the bow perpendicular to the third tenth of the L).

(1/3)  $L^{2/3}$  (m)

(b) Lateral range: one-sixth of the width of the vessel or five meters (ten meters for the portion from the bow perpendicular to the third tenth of the L), whichever is smaller.

(c) Vertical range: When measured from the baseline, one-fifteenth of the width of the vessel or six meters, whichever is less.

2. In the assumption of the scope of damage set forth in the preceding paragraph, the scope of damage, including those specified in each of the following items, shall not be assumed according to the classification of the vessel listed in each of the following items. In this case, if the distance between the two adjacent transverse partition walls is less than the longitudinal range of damage assumed in the same paragraph, one of these two partitions is deemed to be absent.

(i) Two Type 2 vessels with a ship length of 150 meters or less, and Type 2K vessels and Type 3 vessels with a ship length of 125 meters to less than 225 meters: Horizontal bulkheads at the front and rear separating the engine room area at the rear.

(ii) Type 2K vessels and Type 3 vessels with a ship length of less than 125 meters in the engine room area (except for those deemed necessary to be considered by the Director of the Regional Transport Bureau having jurisdiction over the location of the ship); )

3. If the inclination of the vessel is greater than the range of damage specified in paragraph (1) or the stability is worse due to damage in a range smaller than the range of damage specified in paragraph (1), the extent of damage in such small area shall be assumed.

4. It shall be assumed that the watertight compartment within the area of damage referred to in the preceding two paragraphs shall be penetrated.

5. Article 44, Paragraph 1 of the Ship Parcel Regulations (limited to the part pertaining to Item 4) and paragraph (3) (limited to the part pertaining to item (3)). The provisions of this paragraph shall apply

mutatis mutandis to the assumption of the extent of damage to a polar sea vessel that is a liquid chemical bulk carrier.

(Location of cargo tank)

Article 314 Cargo tanks shall be provided in the positions specified in each of the following items in accordance with the categories listed in each of the following items:

- (i) A cargo tank to be used to load cargo that classifies a vessel as a type 1 vessel, a position that meets the following requirements:
  - (b) The distance from the hull of the ship's side in the horizontal plane referred to in Article 313, paragraph (1), item (b) is equal to or greater than the value specified in paragraph (b) of the same subparagraph.
  - (b) If the distance from the outer plate at any point of the bulkhead of the cargo tank is different, the distance from the outer plate at any point shall not be less than 760 millimeters.
  - (c) The vertical distance from the base line is equal to or greater than the value specified in Article 313, paragraph (1), item (ii), item (c).
- (ii) A cargo tank for loading cargo that classifies a vessel as a Type 2 vessel, a position that meets the following requirements:
  - (b) In any place, the distance from the outer plate is 760 mm or more.
  - (b) The vertical distance from the type baseline is equal to or greater than the value specified in Article 313, paragraph (1), item (ii)
  - (c).
- (iii) A cargo tank for loading cargo that classifies the vessel as a Type 2K vessel, a position that meets the following requirements:
  - (b) In any place, the distance from the outer plate is 760 mm or more.
  - (b) The vertical distance from the baseline of the type is greater than or equal to one-fifteenth of the width of the vessel or two meters, whichever is less. However, if the width of the vessel is less than 15 meters, it must be at least 1 meter.

(Well)

Article 315 The wells provided in the cargo tank shall not protrude within the vertical range of damage to the bottom of the vessel as provided for in Article 313, paragraph (1), item (ii) (c).

2. Notwithstanding the provisions of the preceding paragraph, in the case of a vessel other than a Type 1 vessel, if it meets the requirements listed in the following items, it may protrude within the scope of the same paragraph.

1. Be as shallow as possible.

(ii) The position of the bottom surface is higher than the following positions.

(b) If there is a double bottom, the position below the inner bottom plate at a quarter of the depth of the double bottom or 350 millimeters, whichever is smaller.

(b) In the absence of a double bottom, a position of 350 millimeters downward from the upper edge of the vertical range of damage to the bottom of the vessel in Article 313, paragraph (1), item (2)c;

(Discharge pipes, etc.)

Article 316 An ejection pipe that penetrates the outer plate from the interior of a ship's tower or deckroom on a dry deck or deckroom provided with a place under the dry 舷deck or with a wind-sealed door 舷 shall comply with one of the following requirements:

(i) A 舷single automatic non-return valve equipped with a closing device that can be operated in an easily accessible place above the dry deck.

(ii) If the vertical distance from the summer waterline to the end of the opening in the discharge pipe exceeds one hundredth of L, the following requirements shall be met:

(b) Two automatic non-return valves that do not have a closing device are installed.

The inner of the two automatic non-return valves of the Roi shall be accessible at all times for inspection under operational conditions.

2. The automatic non-return valve referred to in the preceding paragraph shall be effective in preventing the inflow of seawater into the ship, taking into account the sinking, longitudinal and lateral inclination of the hull in a condition that complies with the residual requirements prescribed in Article 309.

(Mutatis mutandis)

Article 317 The provisions of Article 45, Paragraph 1 and Article 110 of the Ship Compartment Regulations shall apply mutatis mutandis to liquid chemical bulk carriers. In this case, the term "the preceding Article" in Article 110 of the said Order shall be read as "Article 313 of the Regulations for the Carriage and Storage of Dangerous Goods by Ship."

2. The provisions of Articles 250 and 251 shall apply mutatis mutandis to bulk carriers of liquid chemicals.

Subsection 14 Work Requirements

(Restriction on Loading of Cargo)

Article 318 No cargo shall be loaded on tanks in front of the bow bulkhead of a ship or in tanks aft of the stern bulkhead.

(Quarantine of cargo)

Article 319 When cargo and substances that are likely to cause dangerous effects due to interaction with the cargo are loaded on the same vessel, they shall be loaded in isolation from each other by means of a cofferdam, a hollow space, a cargo pump room, a pump room, an empty tank, or a tank carrying cargo that is not likely to cause a dangerous effect by mutual action.

(Maximum Allowable Cargo Volume)

Article 320 Cargo for which a type one vessel is required shall not be loaded in excess of one or two hundred and fifty cubic meters per tank.

2. Cargo for which a Type 2 vessel is required shall not be loaded in excess of 3,000 cubic meters per tank.

(Opening and closing of cargo tanks)

Article 321 During the carriage, handling of flammable cargo or cargo with toxicity specified in the notification, and during ballast work after unloading, the openings at the top of the cargo tank on which the cargo is loaded shall be closed.

(Storage of samples)

Article 322 When cargo samples are to be stored on board a ship, they shall be stored in a storage area within the cargo area or in a place deemed appropriate by the director of the regional transport bureau having jurisdiction over the location of the ship.

2. The storage location set forth in the preceding paragraph must conform to the requirements listed in the following items.

(i) Measures must be taken to prevent the movement of the container containing the sample.

(ii) The material must be made of materials that will not be affected by the sample to be stored.

(3) It shall be equipped with an appropriate ventilation device.

3. Samples of cargo with different product names shall not be stored in close proximity to each other if there is a risk of dangerous physical or chemical action due to mutual interaction.

4. Samples shall not be stored for longer than necessary.

(Prevention of fire hazard due to static electricity, etc.)

Article 323 The provisions of Articles 331 and 332 shall apply mutatis mutandis to the carriage of cargo in bulk with a flash point of 60 degrees Celsius or less.

(Replacement of flammable vapors in tanks)

Article 323-2 Stationary inert gas equipment (refers to the fixed inert gas device specified in Article 5, Item 9 of the Ship Fire Fighting Equipment Regulations) The same applies to Article 328, paragraphs (1) and (3).

(limited to vessels referred to in Article 272, paragraph (2)). When transporting cargo with a flash point of 60 degrees Celsius or less, the gas in the tank shall be replaced by inert gas, and the gas in the tank shall not be replaced by fresh air until the concentration of flammable gas in the tank is less than 2 percent by volume.

(Mutatis mutandis)

Article 324 The provisions of paragraph (2) of Article 328 shall apply mutatis mutandis to the case of carriage of goods specified in the notification in bulk. In this case, in the same paragraph, the term "oil tanker other than the oil tanker referred to in the preceding paragraph"

shall be substituted for "a vessel carrying the cargo specified in the notification in bulk", the term "hydrocarbon gas" shall be substituted for "flammable and toxic gases", the term "no risk of explosion or fire" shall be substituted for "there is no risk of explosion, fire or health hazard", and the words "the following" shall be substituted for "listed in Article 292, paragraph (2)") It shall be read as:

2. The provisions of paragraph (3) of Article 328 shall apply mutatis mutandis to the case in which the vessel referred to in the preceding Article transports cargo in bulk with a flash point of 60 degrees Celsius or less.

#### Subsection 15 Special Requirements

##### (Special Requirements)

Article 325 In addition to the provisions of the preceding Article, when transporting the cargo specified in the notification, the vessel shall comply with the special requirements specified in the notification according to the type and nature of the cargo.

#### Section 4 Flammable Liquid Substances

##### (Transportation of flammable liquid substances by oil tankers)

Article 326 When transporting flammable liquid substances loaded in tanks of oil tankers, the provisions of Articles 336 to 351 of the following Articles shall be followed.

##### (Precautions before loading and unloading)

Article 326-2 When loading and unloading flammable liquid substances, the necessary preparations for firefighting must be completed in advance.

2. In the case of cargo handling of flammable liquid substances, in addition to the firefighting equipment stipulated in the Ship Fire Fighting Equipment Regulations, the fire extinguishing equipment specified in the notification must be provided when making the preparations set forth in the preceding paragraph.

##### (Restrictions on the handling of fire, etc.)

Article 327 No person shall smoke or handle fire in an oil tanker. However, this does not apply if the master deems these acts to be particularly necessary and has taken sufficient measures to prevent danger.

2. The master shall prohibit unnecessary persons from entering the ship.
3. No person in an oil tanker shall possess matches other than safety matches, bare iron tools or other items that are likely to emit sparks, or wear shoes with iron sticks.
4. The master shall post the prohibitions set forth in paragraphs (1) and (2) at appropriate places on board.
5. Oil tanks and cofferdams shall not be illuminated except for explosion-proof flashlights and mobile lamps. However, this does not apply if the captain confirms in advance that there is no risk of explosion or fire after conducting a gas test.

6 When venting gas in the oil tank, do not use a method of ejecting water vapor into the tank at high speed, such as using a gas ejector.

(Replacement of flammable vapors in tanks, etc.)

Article 328 In the case of an oil tanker equipped with a fixed inert gas device, the gas in the tank shall be replaced by the inert gas, and the exhaust shall not be carried out through an opening at the top of the tank until the concentration of hydrocarbon gas in the tank is less than 2 percent by volume.

2. In the case of an oil tanker other than the oil tanker referred to in the preceding paragraph, hydrocarbon gas in the tank shall be exhausted from an opening in the air pipe that falls under any of the following items, and the gas shall be tested at the opening in the air pipe and exhausted through an opening on the deck at the top of the tank unless the master has confirmed that there is no risk of explosion or fire.

(i) an opening in an air tube at a height of not less than two meters above the deck at the top of the tank, capable of discharging exhaust air vertically upwards at a rate of not less than 30 meters per second;

(ii) An opening in an air tube that is not less than two meters above the deck at the top of the tank and is protected by an appropriate device to prevent the entry of flames, and which is capable of discharging exhaust air vertically upwards at a rate not less than twenty meters per second.

(iii) Opening of air tubes that meet the following requirements:

(b) 6 meters above the deck of the top of the cargo tank (in the case of an opening provided at a distance of not more than 4 meters horizontally from the Gangwe) (in the case of a high-speed exhaust system capable of exhausting at a speed of not less than 30 meters per second vertically upward, and equipped with such a high-speed exhaust system capable of exhausting at a speed of not less than 30 meters per second vertically upward, which is deemed appropriate by the Director of the Regional Transport Bureau having jurisdiction over the location of the ship); It must be provided in a position with a height of 2 meters or more.

(b) It shall be located at a distance of at least 10 meters horizontally from the deck equipment that is the opening of an enclosed area with an ignition source and the ignition source.

3. Oil tankers equipped with fixed inert gas equipment (limited to oil tankers stipulated in Article 57, Paragraphs 4 and 5 of the Ship Fire Fighting Equipment Regulations) In this case, the device must be operated in the following manner. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

(i) Maintain the inside of the cargo tank in an inert state, except when the inside of the cargo tank is replaced with fresh air.

(ii) Oxygen content of inert gas (hereinafter referred to as "content" in this item and the next item). If the content exceeds 5% by volume, immediately take measures to reduce the content.

(3) If the content rate does not decrease even after taking the measures prescribed in the preceding item, the following measures shall be taken in conjunction with the measures in the same item.

(i) Suspension of work on all cargo tanks supplied with inert gas.

If a control valve of the rotary gas supply pipe is installed, close the valve.

(c) Exhaust of inert gases with a volume content exceeding 5%

(Precautions for the use of radio equipment)

Article 329 Flammable liquid substances with a flash point of less than 23 degrees Celsius (hereinafter referred to in this section as "low-flashpoint flammable liquid substances") The captain of an oil tanker transporting the above shall post in the radio room a notice regarding the use of radio equipment, such as prohibition of use during cargo handling.

(Opening and closing of aperture)

Article 330 The opening and closing of the cellar, oil level measuring port, cleaning opening, etc., of the tank shall not be opened without the presence of the master or a person designated by the captain while flammable gas remains in the tank, and the opening shall not be left open without the installation of a fire wire mesh.

2. The opening and closing of the openings described in the preceding paragraph shall not be performed using tools that may emit sparks.

(Prevention of fire hazard due to static electricity)

Article 331 When transporting flammable liquid substances, in order to prevent the risk of ignition due to static electricity, the following shall be followed:

(i) Do not use plastic or chemical fiber chairs, carpets, or other materials that easily electrify the human body in places where flammable liquid substances may leak or accumulate.

(ii) To take measures to dissipate the charge charged to the human body.

(3) A person who works in a place where flammable liquid substances are likely to leak or accumulate shall wear antistatic work clothes and antistatic work shoes.

(4) Flammable liquid substances (except those with sufficiently high electrical conductivity) in the tank. The flow velocity of the flammable liquid substance in the injection pipe shall be 1 meter or less per second until the lower end of the injection pipe, the pipe support frame, and other structures are submerged under the liquid level (except when measures are taken to suppress the oil surface potential or when the gas condition in the tank is inert). ) 。

(Bonding method)

Article 332 When loading and unloading flammable liquid substances, insulating flanges or non-conductive hoses shall be used to connect cargo oil pipes and onshore oil pipes. However, this does not apply when the cargo oil pipe and the onshore oil pipe are electrically continuous in accordance with the following.

- (i) Before connecting the cargo oil pipe and the ground oil pipe, sufficient electrical continuity shall be maintained.
- (ii) Before cutting off the electrical continuity, remove the cargo oil pipe from the onshore oil pipe and make sure that there is no flammable liquid substance left inside the pipe.

(Cargo handling)

Article 333 When flammable liquid substances are loaded onto an oil tanker, the drains and seawater valves related to cargo handling must be completely closed in advance. However, this does not apply if there is a particular need.

- (2) Cargo oil pipes used for the loading and unloading of flammable liquid substances shall be equipped with pulleys that can safely support them.
- 3. The connection point of the cargo oil pipe shall be such that there is no risk of oil leakage, and a saucer shall be placed under it.
- 4. Prior to loading or unloading flammable liquid substances, the master must confirm the following items:
  - (1) No repairs or other work that may pose a danger to cargo handling have been carried out.
  - (ii) The cargo oil loading and unloading equipment is in good condition.
- 5. During the loading and unloading of flammable liquid substances, the master shall monitor the following items:
  - (1) Operating status of valves of cargo oil loading and unloading equipment
  - (ii) Operating pressure of cargo oil loading and unloading equipment
- 3. Presence or absence of oil leakage
- 4. Loading status
- 5. Whether or not sparks are flying from the boiler, cooking room, etc.
- 6. When the loading and unloading of flammable liquid substances is completed, the valves related to cargo handling must be closed immediately.

(Prohibition of cargo handling)

Article 334 In the event that any of the following items applies, a flammable liquid substance (in the case of subparagraph (3), it shall be limited to a liquid substance with a low flash point): Do not unload the cargo.

- (1) When there is a significant magnetic storm.
- (ii) When there is a fire in the vicinity.
- (iii) Other vessels (excluding small vessels that are not likely to pose a danger) ) is separated.

(Cargo handling of other cargo, etc.)

Article 335 The master of a ship shall not carry other cargo or dangerous goods for regular use during the loading and unloading of low-flashpoint flammable liquid substances, unless he deems that there is no risk of danger.

(Relationship between Flammable Liquid Substances and Other Hazardous Materials)

Article 336 An oil tanker loaded with flammable liquid substances shall be loaded with other dangerous goods (refers to the dangerous goods referred to in Article 2, Item 1). and shall not carry solid cargo.

(Transportation of Flammable Liquid Substances by Tank Vessels)

Article 337 When flammable liquid substances are loaded and transported in tanks of a tank ship (except in cases where carriage is prohibited pursuant to the provisions of the following paragraph); shall be in accordance with the provisions of Article 326-2, Articles 347 to 347 and Article 351.

2. Liquid substances with low flash point shall not be transported by wooden tank vessels.

(Installation of tanks, etc.)

Article 338 The installation of tanks on a tank ship shall be in accordance with the following:

(i) It shall be installed in a place that is far from the place of residence, the end boat, the place of embarkation, the fire hydrant, etc., and does not obstruct the passage of the crew to carry out their work, and is easily accessible.

(ii) It shall not be installed in front of the bow bulkhead and behind the stern bulkhead.

(3) Install in a place where there is no risk of fire or hot air and where there is good ventilation.

(4) To be mounted on a solid support that does not cause excessive stress concentration in the tank.

(5) A margin of not less than 600 mm from the outer plate (or inner bottom plate in the case of the bottom of a vessel with a double-bottom structure) and a minimum of 380 mm between the structural members of the hull such as ribs and ribs shall be left so that maintenance and inspection of the tank and hull can be carried out. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the ship deems that it is acceptable to consider the hull structure, etc.

(6) The part of the exposed deck through which the tank penetrates shall be weather-tight.

2. The hold in which the tank is to be mounted shall be in accordance with the following:

- (i) The partition wall between the engine room and other places where machinery that may cause a gas explosion is to be installed shall be of gastight construction.
  - (ii) Measures are taken to ensure that the bilge in the hold is discharged by a dedicated bilge pump or other drainage equipment installed in a place other than the engine room or other places where machinery that causes a gas explosion is installed, and that it does not flow into the engine room or other places where machinery that causes a gas explosion is installed.
  - (iii) The electrical equipment in the hold shall be painted and other preventive measures to prevent damage by gases or liquids.
3. A tank vessel shall be marked with the name of the flammable liquid substance carried by the tank vessel and the word "hazard" in an easily visible place on the outside.
- (4) The electrical circuits in the hold on which the tanks are to be installed shall be in accordance with the wiring work stipulated in Article 302-7 of the Ship Equipment Regulations.
5. The tank shall be adequately shielded from direct sunlight or shall be equipped with an inflatable trunk, sprinkler system or other equipment to prevent hazards from rising temperatures. However, this does not apply to tank vessels that the director of the regional transport bureau having jurisdiction over the location of the vessel deems to be acceptable in consideration of the conditions of the shipping route.
- (Structure of the tank)

Article 339 Tanks of tank ships (excluding tanks referred to in paragraph (1) of the following Article) The same shall apply hereinafter in this Article. It must have a solid structure and shall not leak or deform significantly even if the hydraulic test is performed at a pressure equivalent to the water height pressure of 2.5 meters above the top plate.

- 2. The welding of the tank shall conform to the regulations regarding pressure vessels stipulated in the Ship Engine Regulations (Ordinance No. 28 of the Ministry of Transport of Showa 59).
- 3 Tanks (excluding wave-proof plates) shall be composed of steel plates with a thickness of 6 mm or more. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to consider the materials used.
- 4. Each compartment of the tank shall not exceed 9.3 meters in length and not exceed one-half the width of the ship. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it acceptable to consider the structure and route of the vessel, the position of the wave control plate, etc.

Article 340 A tank in which the regulating pressure of an automatic breathing valve or pressure relief valve exceeds 0.02 megapascals shall

conform to the provisions of the Regulations on Welded Pressure Vessels set forth in the Regulations of Ship Engines.

2. The limiting pressure of the tank referred to in the preceding paragraph shall not be less than the gas pressure at 45 degrees Celsius of the flammable liquid substance to be transported.
3. The body plate and mirror plate of the tank referred to in paragraph (1) shall be steel plates with a thickness of not less than 8 millimeters. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it acceptable to consider the materials used.
4. The inside of the tank referred to in paragraph (1) shall be provided with a wave barrier. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it acceptable to take into account the conditions of the shipping route.

(Identification of mounting objects)

Article 341 The mounting of the tanks of a tank vessel carrying flammable liquid substances shall be such that it is clear at a glance whether they are intended for liquids or gases.

(Accessories)

Article 342 A tank shall be provided with a manhole near its top.

2. The number of valves, flanges, etc. of the tank shall be limited to the minimum necessary limit and shall be installed so that they do not leak.
3. Valves, flanges, etc. shall not be filled with lubricating oils, lubricants, or packing that may cause a chemical reaction with flammable liquid substances filled in the tank.

(Safety device)

Article 343 The tank shall be equipped with an automatic breathing valve or a spring-loaded pressure relief valve in each compartment (excluding the compartment in which two or more compartments are shared). It must be installed for each of them. provided, however, that this shall not apply to the parcel approved if the Director of the Regional Transport Bureau having jurisdiction over the location of the vessel deems it acceptable to take into account the conditions of the shipping route, etc.

2. The automatic breathing valve or pressure relief valve installed in the tank referred to in paragraph (1) of Article 340 shall be adjusted to operate at a pressure not higher than 1.1 times the limiting pressure and shall have such a relief capacity that the internal pressure of the tank does not exceed 1.1 times the limiting pressure.
3. Automatic breathing valves, pressure relief valves, and compartments in which the installation of these valves are omitted pursuant to the proviso to paragraph 1 shall be connected to appropriate air pipes, the opening ends of which protrude into areas on the exposed deck where there is no risk of hazards due to exhaust gases, and shall be made of wire

mesh conforming to the standard mesh sieve standards of the Japan Industrial Standard "Standard Sieve" to prevent ignition. • It must be double-attached with a finer than 85 mm.

(Ground)

Article 344 Tanks and pipe equipment shall be grounded in the hull.

(Cargo Oil Pump)

Article 345 Cargo oil pumps shall have measures in place to prevent the generation of sparks and to prevent oil from leaking from packing boxes.

(2) Cargo oil pumps shall be provided at any of the following locations:

(i) The engine room and other places where machinery that may cause a gas explosion are provided shall be sufficiently separated, such as by a gas-tight bulkhead. However, a liquid substance with a high flash point (a flammable liquid substance other than a liquid substance with a low flash point) In the case of a tank vessel transporting diesel engines and other machinery, this shall not apply to places where diesel engines and other machinery are installed and which are deemed to be safe by the Director of the Regional Transport Bureau having jurisdiction over the location of the ship.

(ii) Measures shall be taken to prevent bilge in the said location from flowing into the engine room or other areas where machinery that causes gas explosions is installed by a dedicated bilge pump or other drainage equipment installed in a place other than the place where machinery that causes a gas explosion is installed. provided, however, that in accordance with the proviso of the preceding item, drainage facilities may be provided in places deemed safe by the Director of the Regional Transport Bureau having jurisdiction over the location of the ship. In this case, the drainage facility may not be dedicated.

(iii) The electrical equipment in the place shall be painted and other preventive measures to prevent it from being damaged by gases or liquids, and the electrical circuits in the place shall be in accordance with the wiring work stipulated in Article 302-7 of the Ship Equipment Regulations.

(iv) An effective ventilation system shall be provided to eliminate dangerous gases in the area.

(Restrictions on the handling of fire, etc.)

Article 346 The provisions of Articles 327 to 336 shall apply mutatis mutandis to the carriage of flammable liquid substances by tanker vessels.

(Lighting)

Article 347 In the hold of the vessel on which the tank is installed and the place where the cargo oil pump is installed, no lighting other than the lighting equipment prescribed in Article 302-9 of the Ship Equipment Regulations shall be used.

(Transportation of flammable liquid substances by oil barges)

Article 348 When flammable liquid substances are loaded and transported in the tanks of oil barges (except in cases where carriage is prohibited pursuant to the provisions of the following paragraph): shall be in accordance with the provisions of Article 326-2 and Articles 351 to 351.

2. Liquid substances with low flash point shall not be transported by means of wooden oil barges equipped with prime movers to drive cargo oil pumps or other machinery that may cause gas explosions.

(Structure of oil barge)

Article 349 The provisions of paragraphs (1) to (3) of Article 338 and articles 339 to 345 shall apply mutatis mutandis to oil barges carried by loading flammable liquid substances in tanks that do not form part of the hull. In this case, the term "engine room" in Article 338, paragraph (2) shall be read as "a place where a prime mover is provided to drive a cargo oil pump."

2. The provisions of Article 338, paragraph 3, Article 339, Articles 341 to 343 and Article 345 shall apply mutatis mutandis to oil barges carried by loading flammable liquid substances in tanks forming part of the hull. In this case, the reference to "2.5 meters above the top plate" in Article 339, paragraph (1) shall be read as "2.4 meters above the upper deck", and the reference to "engine room" in Article 345, paragraph (2) shall be read as "the place where the prime mover for driving the cargo oil pump is provided".

3. The oil barge tanks referred to in the preceding paragraph shall be separated from the place of residence and the place of installation of machinery that may cause a gas explosion by an oil-tight cofferdam with sufficient ventilation equipment.

(Restrictions on the handling of fire, etc.)

Article 350 The provisions of Articles 327, 330 to 336 and 347 shall apply mutatis mutandis to the carriage of flammable liquid substances by barges.

(Carriage of flammable liquid substances harmful to the human body)

Article 351 In the case of oil tankers, tanker vessels or oil barges carrying flammable liquid substances of properties harmful to the human body and specified in the notification, the following items shall be followed:

(i) The opening end of the exhaust pipe of the ventilator in the hold where the tank is installed, the cofferdam and the place where the cargo oil pump is installed shall protrude in a place where there is no risk of exhaust gas entering the control area, the place of habitation, the place of use, and the engine room.

(ii) Equipped with at least two gas masks (one in the case of an oil barge) or at least a set of oxygen respirators and two sets of protective clothing, protective gloves or other protective equipment (one set in the case of an oil barge).

(3) Workers during cargo handling (excluding seafarers under the Seafarers Act) If the gas is located in a place where a cargo oil pump is installed, gas tests shall be conducted as appropriate, measures shall be taken to ensure that there is no amount of gas harmful to the human body in the area, and a supervisor shall be assigned outside the location.

(Carriage of flammable liquid substances loaded and transported in tanks mounted on the exposed deck)

Article 352 In the case of carriage of flammable liquid substances loaded in tanks mounted on the exposed deck of ships other than passenger ships, the provisions of Article 47, paragraph (3), Article 48, Article 326-2 and the following Articles to 356 shall be followed.

(Installation of tanks)

Article 353 The installation of tanks shall be in accordance with the following items:

(i) To be installed at an appropriate distance from the place of control, habitation and embarkation.

(ii) Install in a place that does not interfere with the handling of fire hydrants, sounding pipes and air pipes.

(3) To be installed in a place where it does not obstruct the passage of the crew to carry out their work.

(4) To be mounted on a solid support that does not cause excessive stress concentration in the tank.

(5) Leave the necessary space around the tank for maintenance and inspection of the tank and the hull.

2. The tank shall be adequately shielded from direct sunlight or equipped with an inflatable trunk, sprinkler system or other equipment to prevent hazards from rising temperatures.

(Structure of tank, etc.)

Article 354 The provisions of Articles 339 to 344 shall apply mutatis mutandis to the structure of tanks.

(Cargo handling)

Article 355 The provisions of Articles 331 to 335 shall apply mutatis mutandis to the carriage of flammable liquid substances pursuant to the provisions of Article 352.

(Provision of anti-gas surfaces, etc.)

Article 356 The provisions of paragraph (2) of Article 351 shall apply mutatis mutandis to ships carrying flammable liquid substances pursuant to Article 352.

#### Section 5 Hazardous Liquid Substances

(Transportation of liquid corrosive substances by tank ship)

Article 357 Hazardous liquid substances in the tanks of tank ships that are corrosive substances under Article 2(1)(c) (hereinafter referred to as "liquid corrosive substances" in this section) In the case of carriage

with the following Article, the provisions of the following Article to Article 363 shall be followed.

(Installation of tanks)

Article 358 The installation of tanks on a tank ship shall be in accordance with the following items:

- (i) It shall be installed in a place that is far from the place of residence, the end boat, the place of embarkation, the fire hydrant, etc., and does not obstruct the passage of the crew to carry out their work, and is easily accessible.
- (ii) It shall not be installed in front of the bow bulkhead and behind the stern bulkhead.
- (3) Install in a place where there is no risk of fire or hot air and where there is good ventilation.
- (4) To be mounted on a solid support that does not cause excessive stress concentration in the tank.
- (5) A margin of not less than 600 mm from the outer plate (or inner bottom plate in the case of the bottom of a vessel with a double-bottom structure) and a minimum of 380 mm between the structural members of the hull such as ribs and ribs shall be left so that maintenance and inspection of the tank and hull can be carried out. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the ship deems that it is acceptable to consider the hull structure, etc.
- (6) The part of the exposed deck through which the tank penetrates shall be weather-tight.

(Hold where the tank is mounted)

Article 359 The hold on which tanks are to be mounted shall be in accordance with the following items:

- (i) The partition wall between the engine room and the engine room shall be of gastight construction.
- (ii) Measures shall be taken to ensure that the bilge in the hold is discharged by a dedicated bilge pump or other drainage equipment provided in a place other than the engine room, and that it does not flow into the engine room.
- (iii) The electrical equipment in the hold shall be painted and other preventive measures to prevent damage by gases or liquids.

(Shielding from sunlight, etc.)

Article 360 Tanks shall be adequately shielded from direct sunlight or equipped with sprinkler systems and other equipment to prevent hazards caused by rising temperatures.

(View)

Article 361 A tank vessel shall be marked with the name of the liquid corrosive substance carried by the tanker vessel and the word "danger" in a conspicuous place on the outside.

(Identification of mounting objects)

Article 362 The mounting of a tank shall be such that it is clear at a glance whether it is intended for liquids or gases.

Article 363 In the case of transporting liquid corrosive substances loaded into tanks of a tank ship, in addition to the provisions of Article 358 to the preceding Article, the structure, accessories, filling limits, cargo handling, etc. of the tanks shall be in accordance with the instructions of the Minister of Land, Infrastructure, Transport and Tourism.

(Bulk Carriage of Liquid Poisonous Substances)

Article 364 Liquid substances that are hazardous to ships and are poisonous substances referred to in Article 2(1)(1) (hereinafter referred to as "liquid poisonous substances" in this Article and the following Article) In addition to the provisions of Article 70, Paragraph 2, the structure of the tank, its accessories, the filling limit, cargo handling, etc. shall be in accordance with the instructions of the Minister of Land, Infrastructure, Transport and Tourism.

(Carriage of liquid corrosive substances by vessels other than tank vessels and transportation of hazardous liquid substances other than liquid corrosive substances and liquid poisonous substances)

Article 365 When liquid corrosive substances are transported by vessels other than tank ships, and when hazardous liquid substances (excluding liquid corrosive substances and liquid poisonous substances) are transported by vessels. The structure, accessories, filling limits, cargo handling, etc. of the tank shall be in accordance with the instructions of the Minister of Land, Infrastructure, Transport and Tourism.

Part III: Storage of Dangerous Goods

Chapter 1 General Provisions

(Prohibition of repair of containers or packaging)

Article 366 Vessels storing dangerous goods (hereinafter referred to as "storage vessels") Containers or packaging of dangerous goods shall not be repaired.

(Signs of vessels storing dangerous goods)

Article 367 Storage vessels storing explosives, high-pressure gases, flammable liquids, organic peroxides, poisons or radioactive substances shall display red flags during the day and red lights at night in masts or other places where they can be seen.

(Dangerous Goods for Regular Use on Storage Vessels)

Article 368 The number of dangerous goods used in storage vessels shall be limited to the minimum necessary.

(Storage of oil lamps, etc.)

Article 369 Oil lamps, etc., and their fuel on board a storage vessel shall be stored in a metal box and stored on the deck where there is no risk of disaster.

(Life-saving equipment)

Article 370 A storage vessel shall be equipped with a boat capable of accommodating all the employees of the storage vessel.

(2) Storage vessels storing explosives, flammable liquids, and other flammable hazardous materials shall be equipped with the same number of life jackets as the total number of employees of the storage vessel, in addition to the end boats referred to in the preceding paragraph.

3. The provisions of the preceding two paragraphs shall not apply when a storage vessel is berthed.

(Special Provisions for Storage)

Article 371 This Part (excluding Chapter III) (Article 380 (limited to the part pertaining to subparagraph (8))). Except for the provisions of the following paragraphs. In the case of the storage of explosives with a net medicinal content of five kilograms or less on a ship, the storage of such explosives shall not apply.

Article 372 The provisions of Articles 369, 370, 384 and 387 shall not apply to the storage of dangerous goods other than explosives on board a vessel for a period of no more than three days.

2. In the case of the preceding paragraph, the container, packaging, and label of dangerous goods shall be stored by the storage consignor (or the person who stores the goods without entrusting the storage to another person. The same shall apply hereinafter. The director of the Regional Transport Bureau that has jurisdiction over the detention site (if the detention location is outside Japan, the director of the Kanto Transport Bureau. The same shall apply hereinafter. You must follow the instructions of the

Chapter 2 Storage of Explosives

(Containers, packaging, etc.)

Article 373 When explosives are stored on a ship, their containers, packaging and labels shall be in accordance with the standards prescribed in the notification.

(Structure and Equipment of Storage Vessels)

Article 374 A vessel for the storage of explosives shall be a vessel with a deck on one layer.

(2) A vessel storing explosives shall be provided with a lightning protection device at its highest point.

3. Vessels storing explosives shall be fitted with appropriate anti-dust materials.

Article 375 The hold or compartment of a ship for storing explosives of a vessel storing explosives shall be in accordance with the following items:

(1) It shall have a watertight structure. However, the entrance door that is not attached to the storehouse entrance and the deck may have a wind-tight structure.

- (ii) The doors of the entrances and exits shall be made of steel and shall be equipped with a sturdy lock.
- (3) If windows are to be provided, the number shall be limited to the minimum necessary, and iron rods with a diameter of at least one centimeter shall be fitted at intervals of not more than 10 centimeters, opaque glass shall be used on the inside, and steel doors shall be provided on the outside so that they cannot be easily opened from the outside.
- (4) The ventilation holes shall have a structure that does not allow waves to penetrate, etc., and a fine wire mesh shall be attached.
- (5) The inner surface shall be lined smoothly with wooden boards, and iron nails shall be sedimented and covered with copper plates, cement, etc.
- (6) Steel pillars, etc., located in the interior shall be covered with wooden boards.
- (vii) The ceiling shall be covered with an appropriate heat-shielding material.

Article 376 The place of residence of a vessel storing explosives shall be in accordance with the following items:

- (1) The inner surface shall be lined with an appropriate refractory material.
- (2) Lighting equipment shall be fixed.
- (3) Stoves used for heating or cooking shall be fixed at an appropriate distance from the wall.
- (4) The part where the chimney of the stove penetrates the ceiling shall be covered with an appropriate refractory material, and a space of not less than 75 mm shall be placed from the wooden board of the ceiling.
- (5) The discharge end of the chimney of the stove shall protrude in a place where there is no risk of hazard to the hold or compartment where explosives are stored.
- (6) There shall be no openings leading to the hold or compartment in which explosives are stored.

(Location of the storage ship)

Article 377 Vessels storing explosives shall be kept at a distance of not less than 700 meters from shipping routes, anchorages, docks, houses, gas tanks and other structures, railways, tracks, national highways and prefectural roads. However, the distance may be greater than the permitted distance according to the degree of danger only if the director of the regional transport bureau having jurisdiction over the detention site deems that there is no risk of danger, taking into account the topography, the type or quantity of explosives to be stored, and other conditions.

(Relationship between Explosives and Other Hazardous Materials)

Article 378 Dangerous substances other than explosives shall not be stored on ships storing explosives.

(Mutatis mutandis)

Article 379 The provisions of Article 47, paragraph (3) and Article 49 shall apply mutatis mutandis to the storage of explosives.

(Storage way)

Article 380 When explosives are stored on storage vessels, the following items shall be followed:

(i) Explosives shall be stored in the hold or compartment of the ship.

(ii) Explosives in quantities exceeding 10 tons of net mass shall not be stored in the same storage vessel.

(iii) Not more than 1,000 industrial or electric detonators and explosives of grade 1.1, 1.2 or 1.3 shall not be stored in the same storage vessel.

(4) Detonators of class 1.1 or 1.2 and other explosives shall not be stored in the same hold or compartment.

(5) Industrial or electric detonators and other explosives shall not be stored in the same hold or compartment.

(6) If an industrial detonator or electric detonator is stored in a hold or compartment adjacent to a hold or compartment where other explosives are stored, it shall be kept at least sixty-five centimeters away from the adjacent bulkhead.

(vii) Explosives of grade 1.1, 1.2 or 1.3 with a net mass of 2,250 kilograms or more shall be stored below deck.

(8) Plastic explosives (refers to plastic explosives as defined in Article 1 of the Enforcement Regulations of the Explosives Control Act (Ordinance No. 88 of the Ministry of International Trade and Industry of Showa 25)). The same shall apply hereinafter in this issue. Except in the case of storing any of the following plastic explosives, or as otherwise specified in the notification, the substances specified in the notification shall be stored in such a way as to contain an amount specified in the notification or more.

(b) Plastic explosives used in research, development, or testing of new or improved explosives in accordance with laws and regulations.

(b) Plastic explosives used in training pursuant to laws and regulations on the detection of explosives or in the development or testing of equipment for the detection of explosives;

(c) Plastic explosives used for forensic science in accordance with laws and regulations

(d) Plastic explosives seized pursuant to the Code of Criminal Procedure (Act No. 131 of 2013)

(Lighting Restrictions)

Article 381 Ships storing explosives shall not be equipped with lamps using oil or chemicals, except for navigation lights, berthing lights, beacon lights and lighting lights for residential areas.

2. In the hold or compartment of a vessel where explosives are stored, no lighting other than portable electric lights shall be used.

(Firefighting equipment)

Article 382 A vessel storing explosives shall have at least four nine-liter liquid or foam fire extinguishers and eight liters of sand boxes at the place of residence of the watchman.

(Periodic Voluntary Inspections)

Article 383 Periodic voluntary inspections of ships storing explosives shall be carried out in accordance with the following items:

(1) Twice a year or more on a regular basis every year. In this case, storage should be carried out at least once immediately before the busy season for storage vessels that have a busy season.

(ii) To clean the holds or compartments in which explosives are stored;

(iii) To inspect whether it complies with the technical standards provided for in Articles 374 to 377, 381(1) and 382;

Chapter 3 Storage of Dangerous Goods Other than Explosives

(Containers, packaging, etc.)

Article 384 When storing dangerous goods other than explosives on a storage vessel, the storage consignor shall comply with the standards specified in the notification for the containers, packaging, labels, etc. provided, however, that this shall not apply in the case of tankers, tank vessels or barges in which high-pressure gases, flammable liquids, poisonous substances or corrosive substances can be loaded and transported, but such dangerous goods are stored in tanks.

2. Article 71, paragraph (1) (excluding the part pertaining to subparagraph (3)) and paragraph (2), Articles 72 to 88, and 91 (excluding the portion relating to the transport index of containers and overpacks containing radioactive goods). Article 92, paragraph (1) (excluding the portion pertaining to the labeling of containers and overpacks containing radioactive transports). Paragraph 2, Paragraph 3, Paragraph 4 (excluding the part related to the label of the container containing the radioactive transport). and paragraph (5) (excluding the part pertaining to the labels and signs of containers containing radioactive transport). Article 100, Paragraphs 1 and 2 (excluding the parts pertaining to Paragraphs 5 to 15 of the same Article) Paragraphs 3 and 4 (excluding the portion related to the transport index of tanks and containers). and Article 114, paragraph (1) (limited to the part relating to the confirmation of Article 87, paragraph (1) and the approval of Article 88, paragraph (1). Paragraph (2) (excluding the part relating to the confirmation of Article 99, paragraph (1)) The provisions of paragraphs 8 to 10 shall apply mutatis mutandis to the case where radioactive materials are stored on

storage vessels. In this case, the term "one shipper" in Article 71, paragraph (1) shall be read as "one storage consignor", "shipper or consignee" in the same paragraph, and the words "shipper" in Article 80, Article 84, Article 85, paragraph 2, Article 87, paragraph 5, Article 91, Article 92, paragraphs 1 to 5, and Article 100, paragraphs 3, 5 and 6 shall be read as "storage consignor".

(Storage ship structure, etc.)

Article 385 In the case of the storage of dangerous goods other than explosives on a storage vessel, the structure and equipment of the storage vessel and the storage method shall be notified in advance to the director of the regional transport bureau having jurisdiction over the storage area. The same applies when attempting to change these matters.

(2) If the Director of the Regional Transport Bureau having jurisdiction over the place of detention deems it necessary to prevent the occurrence of a disaster, the Director of the Regional Transport Bureau may give necessary instructions regarding matters related to the notification pursuant to the provisions of the preceding paragraph.

(Restrictions on the handling of fire, etc.)

Article 386 In the storage of dangerous goods other than explosives, the following items shall be followed, depending on the nature of the dangerous goods:

(i) Do not use matches other than safety matches, do not possess bare iron tools or other items that are prone to sparks, or handle fire or smoke in a place other than a safe place.

(ii) When handling cargo, do not handle fire or smoke.

(3) Prior to cargo handling, complete the necessary preparations for firefighting.

(4) When cargo handling is completed, clean the place where the dangerous goods were handled.

(Books)

Article 387 The owner of a vessel for the storage of dangerous goods other than explosives shall keep a book in which the names and quantities of dangerous goods and the date of delivery shall be recorded, and shall keep them for a period of one year from the date of entry in the office on shore.

Part IV: Dangerous Goods for Everyday Use

Chapter 1 Storage of Dangerous Goods for Everyday Use

(Containers, packaging, etc.)

Article 388 Containers, packaging and loading methods of dangerous goods for general use shall be in accordance with the standards prescribed in the notification.

(Storage of regular explosives)

Article 389 Explosives for general use exceeding 25 kilograms of net medicinal substances (refers to explosives that are dangerous goods for

regular use) The same shall apply hereinafter. Notwithstanding the provisions concerning the loading method of the preceding Article, it shall be stored in the powder magazine prescribed in Article 51.

2. The provisions of Article 383 shall apply mutatis mutandis to explosives magazines for storing explosives in common use. In this case, the reference to "technical standards stipulated in Articles 374 to 377, Article 381, Paragraph 1 and Article 382" in Item 3 of the same Article shall be read as "the provisions of Article 51, Paragraph 2".

Chapter 2 Working Requirements for Low Flash Point Fuel Vessels  
(Applicable)

Article 389-2 The provisions of this Chapter shall apply to low-flashpoint fuel vessels (low-flashpoint fuel vessels as defined in Article 100-2 of the Ship Engine Regulations). The same applies to Article 390. It applies to vessels that use methane and natural gas containing high concentrations of methane as fuel.

(Environmental Control of Fuel Tanks, etc.)

Article 389-3 The gas in the fuel tank and fuel pipe shall not be replaced with dry air unless the gas in the fuel tank and fuel pipe has been replaced by inert gas.

Article 389-4 Secondary barrier (means the outer barrier when two barriers are provided for storing fuel) The same applies to the next section. In the case of storing fuel in a fuel tank provided with a fuel tank, the hold area pertaining to the fuel tank (an area where a fuel tank is provided and is enclosed by a hull structural member). The same applies to the next section. and the interwall area shall be rendered inert by means of dry inert gas. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

- (2) When fuel is stored in a fuel tank that is not provided with a secondary barrier and is equipped with a cooling system, the hold area of the fuel tank must be environmentally controlled by dry air.

(Fuel tank pressure relief valve)

Article 389-5 In the event of an abnormal situation, when the flow path of the air pipe between the pressure relief valve of the fuel tank and the tank is cut off, the following shall be followed:

- (i) Under the supervision of the master, the vessel shall be carried out in accordance with the procedures described in the Operating Manual, as may be deemed appropriate by the Director of the Regional Transport Bureau having jurisdiction over the location of the vessel or by the classification society.
- (ii) An indication shall be made on the pressure relief valve that the flow path is blocked.

(Fuel supply system)

Article 389-6 If the supply of fuel is interrupted due to the activation of the automatic valve of the fuel supply pipe, the following shall be followed:

- (i) The fact that the fuel supply has been stopped shall be notified at the place of operation of the automatic valve in the fuel supply pipe and in a place where it is easily visible in the engine room (only if the automatic valve is activated due to a fuel leak). ) to be displayed in the
  - (ii) Do not resume the supply of fuel until the cause of the activation of the automatic valve in the fuel supply pipe has been removed.
- (Refueling pipe)

Article 389-7 Fuel refueling pipes shall be maintained in a state in which they are replaced by fresh air, except when they are used for refueling. However, this does not apply if the director of the regional transport bureau having jurisdiction over the location of the vessel deems it safe to do so.

(Refueling)

Article 389-8 The master of the ship or a person acting on behalf of the master of the ship (hereinafter referred to as "the master, etc." in this chapter) When refueling is carried out, it must be done in accordance with the following.

- (i) Before refueling, the person responsible for refueling (hereinafter referred to as the "refueling manager" in this chapter) shall be charged. Confirm work procedures and matters related to ensuring safety.
- (ii) Before refueling, check the equipment necessary to ensure the safety of the work and record the results.
- (3) In order to prevent fires in the vicinity of the place where fuel is replenished, fire precautions shall be posted.
- (iv) Prohibiting the entry of persons who do not need to enter the vicinity of the manifold for refueling.
- (5) Require the use of necessary protective equipment by persons engaged in operations in the vicinity of the refueling manifold.
- (6) Maintain a state of constant communication between the captain and the person in charge of refueling.
- (vii) After refueling, a certificate of refueling shall be issued by the person in charge of refueling.

(Refueling with portable tanks)

Article 389-9 The preceding Article (excluding items (4) and (5) In addition, with regard to the replenishment of fuel by tanks that can be loaded and unloaded, the master must follow the instructions of the director of the regional transport bureau having jurisdiction over the location of the vessel in order to prevent the tanks from moving, overturning, or being damaged.

(Bonding method)

Article 389-10 When refueling is carried out, an insulating flange or a non-conductive hose shall be used to connect the refueling pipe with the equipment provided by the refueling manager. However, this does not apply when the refueling pipe and the equipment provided by the refueling manager are electrically continuous.

(Restrictions on carry-ons)

Article 389-11 When entering an enclosed compartment where there is a risk of fuel leakage or accumulation, no material that may cause a fire shall be brought in unless the enclosed compartment has been replaced by fresh air and the condition has been maintained.

(High-heat work)

Article 389-12 When high-heat work is carried out in the vicinity of fuel tanks, fuel pipes, and related heat shielding devices, fire prevention measures shall be taken in consideration of the danger of such work, and such work shall not be carried out unless the master or other personnel have confirmed that there is no risk of explosion or fire.

Chapter 3 Oil below 43 degrees Celsius

(Oil below 43 degrees Celsius)

Article 390 Oil with a flash point of not more than 43 degrees Celsius shall not be used as fuel for the engines of passenger ships engaged in international voyages. However, this does not apply if the passenger ship is a low-flashpoint fuel vessel.

Part 5 Miscellaneous Provisions

(Special Measures)

Article 390-2 In the case listed in column 1, the provisions of column 4 may not be applied if the permission of the person listed in column 3 is obtained with respect to the matter in column 2.

When transporting dangerous goods by vessel (except for transporting bulk liquid dangerous goods) )	Containers & Packaging	Minister of Land, Infrastructure, Transport and Tourism	Articles 8, 46, 54, 61, 65 and 108
	Carriage of prohibited dangerous goods	Minister of Land, Infrastructure, Transport and Tourism (in the case of transportation between ports in Japan, the Director General of the Regional Transport Bureau	Article 7

		having jurisdiction over the port of shipment)	
	Loading method	Minister of Land, Infrastructure, Transport and Tourism (in the case of transportation between ports in Japan, the Director General of the Regional Transport Bureau having jurisdiction over the port of shipment)	Article 20(1), Article 50, Article 56, Article 59, Article 63, Article 66, Article 69 and Article 109
	Isolation of dangerous goods, etc.		Article 21
	Containers, packaging, tags, etc., and loading methods when transporting hazardous materials other than radioactive materials for disposal in the sea	Director of the Regional Transport Bureau with jurisdiction over the shipping point	Article 8, Article 20(1), Article 46, Article 50, Article 54, Article 56, Article 61, Article 63, Article 65, Article 66,

			Article 69, Article 108 and Article 109
	Filling or refilling of high-pressure gas on board a vessel		Article 55(1)
When transporting bulk liquids and dangerous goods by vessel	Loading of other dangerous goods & solid cargo into oil tankers loaded with flammable liquid substances	Director of the Regional Transport Bureau with jurisdiction over the shipping point	Article 336
	Loading of other hazardous materials & solid cargo onto oil tanker vessels loaded with flammable liquid substances		Article 336 as applied mutatis mutandis in Article 346
	Loading of other hazardous materials & solid cargo into oil barges that are loaded with flammable liquid substances		Article 336 as applied mutatis mutandis in Article 350

(Transportation and storage of dangerous goods by ship, handling of dangerous goods in common use, matters that must be established in relation thereto, and matters necessary for their standards)

Article 390-3 In addition to what is provided for in this Ministerial Ordinance, the transportation and storage of dangerous goods by ships and the handling of dangerous goods in regular use, as well as the matters that must be established in connection therewith, and the matters necessary for their standards, shall be prescribed by notification.

#### Part VI Penalties

Article 391 A person who falls under any of the following items shall be fined not more than 300,000 yen:

- (i) A person who violates the provisions of Article 4, Paragraph 1 and brings dangerous goods onto a vessel.
- (ii) A person who has carried out construction or other work in violation of the provisions of Article 5, Paragraph 1, Paragraph 2, Paragraph 3, Paragraph 4, or Paragraph 6.
- (iii) A person who has transported dangerous goods by vessel that are prohibited from being transported by ship in violation of the provisions of Article 7, Paragraph 1.
- (iv) A person who has transported dangerous goods by passenger vessel that is prohibited from being transported by passenger ship in violation of the provisions of Article 7, Paragraph 2.
- (v) A person who, in violation of the provisions of paragraph (2) of Article 337, carries flammable liquid substances in tanks of a wooden tank vessel;
- (6) A person who, in violation of the provisions of paragraph (2) of Article 348, transports flammable liquid substances in the tank of a wooden oil barge referred to in the same paragraph.

Article 392 If the master falls under any of the following items, he shall be fined not more than 300,000 yen.

- (i) Article 20, Paragraph 1, Article 36, Paragraph 3, Article 38, Paragraph 3 or Paragraph 4, Article 50, Article 56, Article 59, Article 63, Article 66, Article 69, Article 94, Paragraph 1 (including cases in which Article 100, Paragraph 14 applies mutatis mutandis). Article 95, paragraph (1) (including cases in which Article 100, paragraph 14 applies mutatis mutandis). Paragraph 2 (including cases in which Article 100, Paragraph 14 applies mutatis mutandis). When carriage is carried in violation of the provisions of paragraph 3, paragraph 4, paragraph 5 or paragraph 6, paragraph 9, paragraph 10, paragraph 11, paragraph 12 or paragraph 13, or Article 109.
- (ii) In the event of a violation of the provisions of Article 5-7.
- (iii) In the event of a violation of the provisions of Article 17, Paragraph 1 or Article 18 of the Special Cargo Ship Transportation Regulations, which apply mutatis mutandis in Article 13, Paragraph 3.

- (iv) When liquefied substances such as liquefaction are transported in bulk on a vessel without being inspected or passed by Article 25, Paragraph 1 of the Special Cargo Ship Transportation Regulations, which applies mutatis mutandis in Article 13, Paragraph 3.
- (v) In the event of a violation of the provisions of Article 99, paragraph (1);
- (6) When the Notification of Transportation of Radioactive Materials, etc. or the Notification of Change in Carriage of Radioactive Materials, etc., referred to in Article 106, Paragraph 1 is not submitted to the Chief of the Regional Coast Guard Headquarters, or when the Notification of Carriage of Radioactive Materials, etc. referred to in the same paragraph is submitted to the Director of the Regional Coast Guard Headquarters, and the radioactive materials, etc. referred to in the same paragraph are transported.
- (7) In the event of a violation of the instructions prescribed in Article 106, paragraph (2);
- (8) When the person fails to undergo or pass the inspection prescribed in Article 111, paragraph (1) and carries the dangerous goods listed in each item of the same paragraph.

Article 393 If the master violates the provisions of Article 17, Paragraph 6 or Article 25, Paragraph 4 of the Special Cargo Ship Transportation Regulations, which apply mutatis mutandis in Article 38, Paragraph 2 or Article 13, Paragraph 3, he shall be fined not more than 200,000 yen.

Article 394 If a shipper of dangerous goods falls under any of the following items, he or she shall be fined not more than 200,000 yen.

- (i) When carriage is carried in violation of the provisions of Article 8, Paragraph 1 or 3, Article 15, Paragraph 2 or 3, Article 46, Article 54, Article 61, Article 65, Article 80, Paragraph 1, Article 84, Article 92, Paragraph 2 or Paragraph 3, or Article 108;
- (ii) In violation of the provisions of Article 8, Paragraph 4, the dangerous goods and the dangerous goods listed in Item 1 of the same paragraph are stored in the same container and transported.
- (iii) In violation of the provisions of Article 1-2-2 or Article 15-3 of the Special Cargo Ship Transportation Regulations, which apply mutatis mutandis in the provisions of Article 13, Paragraph 2, Article 16-2 of the same Order, or Article 13, Paragraph 4, which apply mutatis mutandis in the provisions of Article 13, Paragraph 3, or Article 28 of the same Order, which apply mutatis mutandis in the provisions of Article 13, Paragraph 3, or Article 13, Paragraph 4, the Vessel fails to submit materials to the master or submits such materials with false statements to the master.
- (iv) In violation of the provisions of Article 16, dangerous goods and dangerous goods referred to in Item 1 of the same Article are stored in the same overpack or packaged and transported.

- (v) When the Dangerous Goods Specification referred to in Article 17 is not submitted to the shipowner or the master, or when a false statement is made therein and submitted to the shipowner or master.

Article 395 If a shipper or owner of dangerous goods falls under any of the following items, he or she shall be fined not more than 200,000 yen:

- (i) Article 27 (including cases in which Article 35, Paragraph 1 applies *mutatis mutandis*); In violation of the provisions of this paragraph, the dangerous goods and the dangerous goods listed in Item 1 of the same paragraph are stored in the same container and transported.
- (ii) Article 28, paragraph (1) (including cases in which Article 35, paragraph (1) applies *mutatis mutandis*); Paragraph (3) (including cases in which Article 35, Paragraph 1 applies *mutatis mutandis*). Paragraph 4 (including cases in which Article 35, Paragraph 1 applies *mutatis mutandis*). Paragraph 5 (including cases in which Article 35, Paragraph 1 applies *mutatis mutandis*). or paragraph (6) (including cases in which Article 35, paragraph (1) applies *mutatis mutandis*). In the event of a violation of the provisions of the following paragraphs.
- (3) Article 30 (including cases in which Article 35, Paragraph 1 applies *mutatis mutandis*) In the event that the Vessel fails to submit or deliver a Container Dangerous Goods Statement or a Vehicle Dangerous Goods Statement to the shipowner or master, or submits or delivers a false statement thereto the Vessel Owner or Master in violation of the provisions of this Article.
- (4) Article 89, paragraph (1) (including cases in which Article 100, paragraph 15 applies *mutatis mutandis*); or paragraph (2) (including cases in which Article 100, Paragraph 15 applies *mutatis mutandis*). In the event of carriage in violation of the provisions of Article 91, Paragraph 1, Article 92, Paragraph 1, Paragraph 4 or Paragraph 6, or Article 100, Paragraph 3, Paragraph 5, Paragraph 6 or Paragraph 8.
- (v) In the event of a violation of the provisions of Article 112, paragraph (5);

Article 395-2 The shipper of a container shall: In violation of the provisions of Article 1-2-3, Paragraph 2 of the Special Cargo Ship Transportation Regulations that apply *mutatis mutandis* in Article 31-2, the master or container yard representative (refers to the container yard representative referred to in Article 1-2-3, Paragraph 2 of the same Decree, which applies *mutatis mutandis* in Article 31-2). The same shall apply hereinafter in this Article. or in violation of the provisions of Article 1-2-3, Paragraph 1 of the same Decree, which applies *mutatis mutandis* in Article 31-2, paragraph (1) of the same Ordinance, a document stating the mass of the container and the mass of the goods stored in the container shall be submitted to the master or the representative of the container yard without weighing by any of the items of the same paragraph, shall be punished by a fine of not more than 200,000 yen.

Article 396 If the creator of the radioactive transport falls under any of the following items, he or she shall be fined not more than 200,000 yen.

(i) Article 87, paragraph (1) (including cases in which Article 384, paragraph (2) applies mutatis mutandis); In the event of a violation of the provisions of the following paragraphs.

(ii) Article 87, paragraph (5) (including cases in which Article 384, paragraph (2) applies mutatis mutandis; and Article 384, paragraph (2). In the event that the document is not delivered to the shipper or storage consignor in violation of the provisions of the above paragraph, or when the document is delivered to the shipper or storage consignor with a false statement.

Article 397 Storage vessels (excluding ships for storing explosives) If the owner of the vessel violates the provisions of Article 367, he or she shall be fined not more than 200,000 yen.

Article 398 If a person entrusted with the storage of dangerous goods violates the provisions of Article 80, Paragraph 1, Article 84, Article 91, Paragraph 1, Article 92, Paragraph 1, Paragraph 2, Paragraph 3 or Paragraph 4, or Article 100, Paragraph 3, which apply mutatis mutandis to Article 384, Paragraph 1 or Paragraph 2 of the same Article, he or she shall be punished by a fine of not more than 200,000 yen.

Article 399 If a representative of a corporation or an agent, employee or other employee of a corporation or a person commits a violation of Article 391, Article 392, or Article 394 to the preceding Article in relation to the business of the corporation or person, the offender shall be punished and the corporation or person shall be punished as set forth in each of these Articles.

#### Supplementary Provisions Extract

(Effective Date)

1. This Ministerial Ordinance shall come into effect on November 1, Showa 32.  
(Abolition of Regulations on the Carriage and Storage of Dangerous Goods by Ship)
  2. The Regulations for the Carriage and Storage of Dangerous Goods by Ship (Ordinance No. 14 of the Ministry of Communications and Communications of Showa 9) are repealed.  
(Transitional Provisions)
  3. At the time of the enforcement of this Ministerial Ordinance, the transportation of dangerous goods by means of explosives magazines or tanks of dangerous goods tank vessels currently installed on ships may still be subject to the previous examples.
- (6) At the time of the enforcement of this Ministerial Ordinance, a person who has been certified under Article 8, Paragraph 1 of the Regulations on the Carriage and Storage of Dangerous Goods by Ship shall be deemed to have been certified under the same paragraph of the same Article with

respect to the loading inspection of explosives listed in Article 129, Paragraph 1.

7. The application of penalties to acts committed before the enforcement of this Ministerial Ordinance shall be in accordance with previous examples.

Supplementary Provisions (Ordinance No. 43 of the Ministry of Transport on November 1, 1932)

This Ministerial Ordinance shall come into effect from the date of promulgation.

Supplementary Provisions (Ministry of Transport Ordinance No. 4 of March 26, 1933)

This Ministerial Ordinance shall come into effect from the date of promulgation.

Supplementary Provisions (Ordinance No. 16 of the Ministry of Transport of May 20, 1933)

1. This Ministerial Ordinance shall come into effect on June 1, Showa 33.

Supplementary Provisions (Ordinance No. 26 of the Ministry of Transport on July 1, 1933)

This Ministerial Ordinance shall come into effect from the date of promulgation.

Supplementary Provisions (Ministry of Transport Ordinance No. 54 of December 26, 1933)

This Ministerial Ordinance shall come into effect on January 1, Showa 34.

Supplementary Provisions (Ordinance No. 18 of the Ministry of Transport on May 1, 1934)

(Effective Date)

1. This Ministerial Ordinance shall come into effect on June 1, Showa 34. (Transitional Provisions)

4. The application of penalties for acts committed before the enforcement of this Ministerial Ordinance shall continue to be in accordance with the previous examples.

Supplementary Provisions (Ministry of Transport Ordinance No. 35 of September 5, Showa 35)

(Effective Date)

1. This Ministerial Ordinance shall come into effect on October 1, Showa 35. provided, however, that the amending provisions of Article 86 of the Regulations on the Carriage and Storage of Dangerous Goods, the amending provisions adding a proviso to Article 138 of the Regulations, and the amending provisions of Schedule 3 and Appendix 12 of the Regulations shall be subject to the amending provisions of Article 109 of the Regulations and the amending provisions of Article 118 of the Regulations (limited to the part pertaining to paragraph (2) of the same Regulations, as of the date of promulgation. and the amended provisions adding item (2) to Article 159 of the same Regulation shall come into effect on October 1, Showa 36.

(Transitional Provisions)

2. This Ministerial Ordinance (excluding the part pertaining to the proviso of the preceding paragraph) The same shall apply hereinafter. In the case of the loading equipment for dangerous goods and other special cargo of ships that are currently equipped with loading facilities for dangerous goods and other special cargo at the time of the enforcement of the above, until December 31, Showa 35 (if the earliest of the periodic inspections, interim inspections, or temporary inspections related to the enforcement of this Ministerial Ordinance is conducted on the vessel before December 31, Showa 35, the time of the inspection) In addition, according to the previous example.
3. Of the loading facilities for dangerous goods and other special cargo that should be installed on the vessel referred to in the preceding paragraph, the Director of the Regional Transport Bureau (including the Director of the Transport Supervision Department) shall be stationed on the ship. In the case of matters that are deemed to be difficult in practice to comply with the provisions of Article 169, paragraph (3) of the amended Ship Equipment Regulations or the provisions of the Regulations on the Carriage and Storage of Dangerous Goods after the amendment, the previous examples shall continue to apply even after the period specified in the same paragraph.

Supplementary Provisions (Ministry of Transport Ordinance No. 42 of December 19, 1935)

This Ministerial Ordinance shall come into effect from the date of promulgation.

Supplementary Provisions (Ministry of Transport Ordinance No. 2 of January 24, 1936)

This Ministerial Ordinance shall come into effect on February 1, Showa 36. provided, however, that the amended provisions pertaining to Schedules 4 and 5 shall come into effect from the date of promulgation.

Supplementary Provisions (Ministry of Transport Ordinance No. 57 of November 25, 1936)

This Ministerial Ordinance shall come into effect from the date of promulgation.

Supplementary Provisions (Ministry of Transport Ordinance No. 3 of March 13, 1937)

This Ministerial Ordinance shall come into effect from the date of promulgation.

Supplementary Provisions (Ordinance No. 27 of the Ministry of Transport of May 28, 1937)

1. This Ministerial Ordinance shall come into effect on June 1, Showa 37.
4. The application of penalties for acts committed before the enforcement of this Ministerial Ordinance shall continue to be in accordance with the previous examples.

Supplementary Provisions (Ordinance No. 54 of the Ministry of Transport on October 1, 1938)

This Ministerial Ordinance shall come into effect from the date of promulgation.

Supplementary Provisions (Ministry of Transport Ordinance No. 55 of October 3, 1938)

This Ministerial Ordinance shall come into effect from the date of promulgation.

Supplementary Provisions (Ordinance No. 42 of the Ministry of Transport on June 1, 1939)

This Ministerial Ordinance shall come into effect from the date of promulgation.

Supplementary Provisions (Ordinance No. 53 of the Ministry of Transport on July 31, 1939)

(Effective Date)

1. This Ministerial Ordinance shall come into effect on October 1, Showa 39.

Supplementary Provisions (Ministry of Transport Ordinance No. 75 of October 16, 1939)

This Ministerial Ordinance shall come into effect from the date of promulgation.

Supplementary Provisions (Ministry of Transport Ordinance No. 38 of May 19, 1940)

(Effective Date)

1. This Ministerial Ordinance shall come into effect on May 26, 1940.

(Transitional Provisions)

3. With regard to the construction work currently being carried out on the ship at the time of the enforcement of this Ministerial Ordinance, the previous example shall continue to apply until the work is completed.
4. The provisions of Article 23-2 after the amendment shall not apply to the carriage of explosives by vessels equipped with keels before the enforcement of this Ministerial Ordinance.
5. The application of penalties for acts committed before the enforcement of this Ministerial Ordinance shall continue to be in accordance with the previous examples.

Supplementary Provisions (Ministry of Transport Ordinance No. 44 of July 18, 1941)

This Ministerial Ordinance shall come into effect on August 1, 1941.

Supplementary Provisions (Ordinance No. 3 of the Ministry of Transport of March 24, 1944)

(Effective Date)

1. This Ministerial Ordinance shall come into effect on the day on which seven days have elapsed from the date of promulgation.

(Transitional Measures)

3. The application of penalties for acts committed before the enforcement of this Ministerial Ordinance shall continue to be in accordance with the previous examples.

Supplementary Provisions (Ordinance No. 20 of the Ministry of Transport of April 4, 1945)

(Effective Date)

1. This Ministerial Ordinance shall come into effect on April 7, 1945.

Supplementary Provisions (Ordinance No. 2 of the Ministry of Transport on January 11, 1946)

(Effective Date)

1. This Ministerial Ordinance shall come into effect from the date of promulgation.

Supplementary Provisions (Ordinance No. 46 of the Ministry of Transport of June 30, 1946)

1. This Ministerial Ordinance shall come into effect on September 1, 1946. provided, however, that the amending provisions of Article 111, paragraph (4), the amending provisions amending paragraph (5) of the same Article, and the amending provisions amending "Minister of Transport" in Schedules 1 to 8 and Schedule 9-2 to "Director General of the Shipping Bureau having jurisdiction over the place of loading" shall come into effect on August 1 of the same year, and the amending provisions of Article 5, paragraph 4 and the amending provisions adding Article 1 after Article 16 shall come into effect on December 1 of the same year.

3. The installation of tanks and the wiring of electrical circuits of tank vessels or barges carrying dangerous goods built or commenced before the enforcement of this Ministerial Ordinance may still be carried out.

- (4) Liquefied petroleum gas tanker vessels and tank vessels carrying aniline oil that have received instructions from the Minister of Transport regarding the structure, accessories, relief valves, filling limits, cargo handling, etc., prior to the enforcement of this Ministerial Ordinance may still be followed.

Supplementary Provisions (Ministry of Transport Ordinance No. 4 of February 26, 1947)

This Ministerial Ordinance shall come into effect from the date of promulgation.

Supplementary Provisions (Ministry of Transport Ordinance No. 37 of May 15, 1947)

This Ministerial Ordinance shall come into effect from the date of promulgation.

Supplementary Provisions (Ordinance No. 54 of the Ministry of Transport of August 14, 1947)

This Ministerial Ordinance shall come into effect from the date of promulgation.

Supplementary Provisions (Ordinance No. 9 of the Ministry of Transport of March 27, 1948)

(Effective Date)

1. This Ministerial Ordinance shall come into effect from the date of enforcement of the Act (July 1, 1948).

Supplementary Provisions (Ministry of Transport Ordinance No. 32 of July 25, 1949)

1. This Ministerial Ordinance shall come into effect on August 1, 1949.
2. Fees for applications made before the enforcement of this Ministerial Ordinance shall continue to apply.

Supplementary Provisions (Ordinance No. 34 of the Ministry of Transport of August 2, 1949)

(Effective Date)

1. This Ministerial Ordinance shall come into effect on September 1, 1949.

(Transitional Measures)

8. The application of penalties for acts committed before the enforcement of this Ministerial Ordinance shall continue to be in accordance with the previous examples.

Supplementary Provisions (Ordinance No. 36 of the Ministry of Transport of August 27, 1949)

(Effective Date)

Article 1 This Ministerial Ordinance shall come into effect on September 1, 1949.

Supplementary Provisions (Ministry of Transport Ordinance No. 8 of March 27, 1951)

1. This Ministerial Ordinance shall come into effect on April 1, 1951.
2. Fees for applications made before the enforcement of this Ministerial Ordinance shall continue to apply.

Supplementary Provisions (Ordinance No. 26 of the Ministry of Transport of August 26, 1952)

(Effective Date)

1. This Ministerial Ordinance was effective on September 6, 1952 (hereinafter referred to as the "Enforcement Date"). It will be enforced from the following.

Supplementary Provisions (Ordinance No. 32 of the Ministry of Transport of November 17, 1952)

(Effective Date)

1. This Ministerial Ordinance shall be effective on January 1, 1953 (hereinafter referred to as the "Enforcement Date"). It will be enforced from the following. provided, however, that the provisions of the table of contents shall be amended (limited to the part where "Article 83-9" is amended to "Article 83-10"). and the amending provisions of Article 79, the amending provisions of Article 81, the amending provisions of Article 81, the amending provisions of Article 83-9 by substituting Article 83-9,

the amending provisions of Article 83-7 with Article 83-8, the amending provisions of Article 83-6, the amending provisions of Article 83-7 by one article, and the amending provisions of Article 83-3 to Article 83-5; The amending provisions of Article 83-2 and the amending provisions of Article 83-3 and the addition of Article 1 after Article 83 shall come into effect from the date of promulgation.

(Transitional Measures)

2. Radioactive transports containing or packaging radioactive materials other than nuclear fuel materials or materials contaminated by nuclear fuel materials as defined in Article 2, Paragraph 2 of the Act on the Regulation of Nuclear Source Materials, Nuclear Fuel Materials and Nuclear Reactors (Act No. 166 of Showa 32), and the Dangerous Goods Shipping and Storage Regulations (hereinafter referred to as the "New Regulations") as amended by this Ministerial Ordinance. Articles 89 to 91-2 (including cases in which Article 155-3, paragraph 2 applies mutatis mutandis). Notwithstanding these provisions, the previous example shall continue to apply to the standards as radioactive transports for items that do not conform to the standards described above. In this case, Article 91-3 of the New Regulations (including cases in which Article 155-3, Paragraph 2 applies mutatis mutandis). Article 91-9 (including cases in which Article 155-3, paragraph (2) applies mutatis mutandis). and Article 91-15 shall not apply.
3. With regard to the importation, carriage or storage of radioactive materials that are actually brought on, transported, or stored on board a vessel on the effective date, the previous precedent shall continue until such carrying, carriage or storage is completed.
4. The application of penalties to acts committed before the effective date or acts committed after the effective date in relation to matters that are subject to the provisions of paragraph 2 of the Supplementary Provisions or the preceding paragraph shall continue to apply.

Supplementary Provisions (Ordinance No. 32 of the Ministry of Transport of June 23, 1953)

(Effective Date)

Article 1 This Ministerial Ordinance shall come into effect from the date of promulgation.

Supplementary Provisions (Ministry of Transport Ordinance No. 61 of November 22, 1953)

(Effective Date)

1. This Ministerial Ordinance shall come into effect on December 1, 1953. (Transitional Provisions)
2. Fees for applications made before the enforcement of this Ministerial Ordinance shall continue to apply.

Supplementary Provisions (Ordinance No. 71 of the Ministry of Transport of December 28, 1953)

(Effective Date)

1. This Ministerial Ordinance shall come into effect from the date of enforcement of the provisions listed in Article 1, Item 3 of the Supplementary Provisions of the Act for Partial Revision of the Atomic Energy Basic Law, etc. (Act No. 86 of 1953) (January 4, 1954).

Supplementary Provisions (Ordinance No. 16 of the Ministry of Transport of April 28, 1954)

(Effective Date)

1. This Ministerial Ordinance shall come into effect from the date of promulgation. provided, however, that the provisions set forth in the following items shall come into effect from the date specified in each item.

(i) Articles 4, 5, 7 to 10, and Paragraphs 3 and 5 of the Supplementary Provisions: October 1, 1954

(Transitional Measures)

3. The carry-on, carriage or storage of dangerous goods currently brought on, carried by or stored on board a vessel at the time of the enforcement of Article 8 shall continue to be subject to the previous precedent until such carry-on, carriage or storage has been completed.
5. The application of penalties to acts committed before the enforcement of the provisions of Article 8 and acts committed after the enforcement of the provisions of Article 8 with respect to matters that are subject to the provisions of paragraph 3 of the Supplementary Provisions, shall continue to apply.

Supplementary Provisions (Ordinance No. 12 of the Ministry of Transport of May 6, 1955)

(Effective Date)

Article 1 This Ministerial Ordinance shall be effective on May 25, 1955 (hereinafter referred to as the "Enforcement Date"). It will be enforced from the following.

(Transitional Measures Accompanying the Partial Revision of the Regulations for the Carriage and Storage of Dangerous Goods)

Article 5 The carriage of solid cargo loaded on oil tankers, tank vessels, or oil barges currently loaded with flammable liquids on the effective date shall continue to be subject to the previous precedent until such carriage is completed.

Supplementary Provisions (Ministry of Transport Ordinance No. 33 of October 24, 1955)

This Ministerial Ordinance shall come into effect from the date of promulgation.

Supplementary Provisions (Ministry of Transport Ordinance No. 6 of March 19, 1956)

(Effective Date)

1. This Ministerial Ordinance shall come into effect on April 1, 1956.

(Transitional Measures)

2. Fees for applications made before the enforcement of this Ministerial Ordinance shall continue to apply.

Supplementary Provisions (Ordinance No. 12 of the Ministry of Transport of March 30, 1956)

(Effective Date)

Article 1 This Ministerial Ordinance shall come into effect on April 1, 1956 on the date of enforcement of the Act to Partially Amend the Act on the Establishment of Administrative Management Agencies for the Consolidation of Local Branch Offices.

Supplementary Provisions (Ordinance No. 18 of the Ministry of Transport of April 25, 1956)

(Effective Date)

1. This Ministerial Ordinance shall come into effect on May 1, 1956.

Supplementary Provisions (Ministry of Transport Ordinance No. 28 of May 18, 1956)

This Ministerial Ordinance shall come into effect on May 18, 1956 (May 18, 1956) of the Act to Partially Amend the Act on the Prevention of Radiation Hazards Caused by Radioactive Isotopes, etc. (Act No. 52 of 1955).

Supplementary Provisions (Ordinance No. 8 of the Ministry of Transport of April 6, 1957)

(Effective Date)

Article 1 This Ministerial Ordinance shall come into effect from the date of promulgation. provided, however, that the provisions set forth in the following items shall come into effect from the date specified in each item.

1. Abbreviation

(ii) Article 1 Amendment of Article 35 of the Organizational Regulations of the Ministry of Transport of China, Article 2 Amendment of the Title of the Organizational Regulations of the Central Shipping Bureau Branches, etc., Amendment of "Chapter 1 Branch of the Shipping Bureau", Amendment of Chapter 2 of the same Order, and Amendment of Appendix 1 of the same Order (excluding the part pertaining to the section of the Fukuoka Branch of the Kyushu Shipping Bureau of the same table).

Amendment of Appendix 2 of the same Order (excluding the part where "Article 2-2" is amended to "Article 2-2 and Article 2-3" and the part pertaining to the section of the Fukuoka Branch of the Kyushu Shipping Bureau of the same table). ), the third amendment to the Appendix of the Ordinance (limited to the part where "Yokosuka same" is changed to "Misaki same"). Amendments to Schedule 4 and Schedule 5 of the Decree and Article 4 of the Supplementary Provisions, January 1, 1958

Supplementary Provisions (Ministry of Transport Ordinance No. 4 of March 19, 1959)

(Effective Date)

1. This Ministerial Ordinance shall come into effect on April 1, 1959.  
(Transitional Measures)
2. Fees for applications made before the enforcement of this Ministerial Ordinance shall continue to apply.

Supplementary Provisions (Ordinance No. 18 of the Ministry of Transport of June 22, 1959)

(Effective Date)

Article 1 This Ministerial Ordinance shall come into effect on July 1, 1959.

(Transitional Measures)

Article 2 Prior to the enforcement of this Ministerial Ordinance, the administrative agencies listed in the upper column of the following table have issued permits, approvals, or other dispositions, contracts, or other acts (hereinafter referred to as "dispositions, etc.") in accordance with the provisions of the law or orders based thereon. The application, notification, or other act (hereinafter referred to as "application, etc.") made to the administrative agency listed in the upper column of the same table before the enforcement of this Ministerial Ordinance shall be regarded as a disposition, etc. made by each administrative agency listed in the lower column of the same table. shall be deemed to be an application made to each administrative agency listed in the lower column of the same table.

Director-General, North Sea Shipping Bureau	Director-General, Hokkaido Transport Bureau
Director General of the Tohoku Shipping Bureau (except in the case of disposal, etc., or application related to the area of Yamagata or Akita Prefecture) )	Director-General, Tohoku Transport Bureau
Director General of the Tohoku Shipping Bureau (limited to cases related to disposal, etc., or applications, etc. related to the area of Yamagata or Akita Prefecture) and General Manager of Niigata Shipping Supervision Department	Director-General, Niigata Transport Bureau
Director-General, Kanto Shipping Bureau	Director-General, Kanto Transport Bureau
Director-General, Tokai Shipping Bureau	Director-General, Chubu

	Transportation Bureau
Director-General, Shipping Bureau	Director-General, Transport Bureau
Director-General of the China Shipping Bureau	Director of the China Transport Bureau
Director-General, Shikoku Shipping Bureau	Director-General, Shikoku Transport Bureau
Director-General, Kyushu Shipping Bureau	Director-General, Kyushu Transport Bureau
Director-General, Kobe Shipping Bureau	General Manager, Kobe Shipping Supervision Department
Director-General, Sapporo Land Transport Bureau	Director-General, Hokkaido Transport Bureau
Director-General, Sendai Land Transport Bureau	Director-General, Tohoku Transport Bureau
Director-General, Niigata Land Transport Bureau	Director-General, Niigata Transport Bureau
Director-General, Tokyo Land Transport Bureau	Director-General, Kanto Transport Bureau
Director-General, Nagoya Land Transport Bureau	Director-General, Chubu Transportation Bureau
Director-General, Osaka Land Transport Bureau	Director-General, Transport Bureau

Director-General, Hiroshima Land Transport Bureau	Director of the China Transport Bureau
Director-General, Takamatsu Land Transport Bureau	Director-General, Shikoku Transport Bureau
Director-General, Fukuoka Land Transport Bureau	Director-General, Kyushu Transport Bureau

Article 3 Any disposition, etc., made by the Director of a Branch of the Shipping Bureau pursuant to the provisions of the Act or an order based thereon prior to the enforcement of this Ministerial Ordinance shall be deemed to be a disposition made by the Director of the Shipping Branch of the Corresponding Regional Transport Bureau or the Shipping Supervisory Department, and an application made to the Director of the Shipping Bureau before the enforcement of this Ministerial Ordinance shall be deemed to be an application made to the Director of the Shipping Branch of the Shipping Bureau or the Shipping Supervision Department.

Supplementary Provisions (Ordinance No. 29 of the Ministry of Transport of August 30, 1959)

(Effective Date)

Article 1 This Ministerial Ordinance shall be effective on September 1, 1959 (hereinafter referred to as the "Enforcement Date"). It will be enforced from the following.

(Transitional Measures Accompanying the Partial Revision of the Regulations for the Carriage and Storage of Dangerous Goods)

Article 5 With respect to existing vessels, the Dangerous Goods Shipping and Storage Regulations (hereinafter referred to as the "New Hazard Regulations") after the amendment pursuant to the provisions of Article 4 shall apply. The provisions of Section 1-3, Article 23-4, Article 69-2, Article 84-2 and Article 101-2 shall not apply.

2. The carriage of dangerous goods by railcar ferries or car ferries of existing vessels, and the carriage of explosives, high-pressure gases, perishable substances, poisonous substances, and flammable liquids by existing vessels shall continue to be subject to the previous precedents.
3. Notwithstanding the provisions of the preceding two paragraphs, with respect to existing vessels that undergo major changes or modifications after the effective date, the Director of the Regional Transport Bureau (including the Director of the Transport Supervision Department) having jurisdiction over the location of the vessel shall be subject to such change or modification. According to the instructions of the following.
4. Construction, cleaning and other work currently being carried out on existing vessels as of the effective date shall continue to be carried

out in accordance with the previous examples until such work, cleaning and other work is completed.

5. The Dangerous Goods Shipping and Storage Regulations prior to the amendment pursuant to the provisions of Article 4 (hereinafter referred to as the "Old Dangerous Regulations"). Notifications and applications made pursuant to the provisions of this paragraph shall be deemed to be notifications and applications made pursuant to the corresponding provisions of the New Hazard Regulations.

6. The Dangerous Goods Inspection Certificate and the Dangerous Goods Container Storage Inspection Certificate pursuant to the provisions of the old Dangerous Goods Regulations shall be deemed to be the Dangerous Goods Loading Inspection Certificate and the Dangerous Goods Container Storage Inspection Certificate pursuant to the corresponding provisions of the New Hazard Regulations.

7. The application of penalties for acts committed before the effective date shall continue to be in accordance with the previous precedents.

Supplementary Provisions (December 24, 1960 Ministry of Transport Ordinance No. 41)

(Effective Date)

1. This Ministerial Ordinance shall come into effect on January 1, 1961.

(Transitional Measures)

2. Notwithstanding the provisions of Article 1 of the Ship Equipment Regulations, Article 1-2 of the Regulations for the Carriage and Storage of Dangerous Goods as amended by this Ministerial Ordinance, Article 66-2 of the Ordinance for Enforcement of the Ship Safety Act, Article 33-2 of the Regulations for the Transport of Special Cargo Vessels, Article 1 of the Ship Lifesaving Equipment Regulations, Article 1 of the Ship Fire Fighting Equipment Regulations, Article 1 of the Ministerial Ordinance on Certificates under the International Convention for the Safety of Life at Sea, etc., and Article 1-2 of the Ship Fire Protection Structure Regulations, The gross tonnage of the vessels listed in each of the following items shall be the gross tonnage specified in each of the following items. provided, however, that this shall not apply in the case where the provisions of Article 12-2, Paragraph 1 of the Ordinance for Enforcement of the Ship Safety Act are applied.

(1) For Japan ships, the Act on the Measurement of Tonnage of Ships (Act No. 40 of Showa 55. Hereinafter referred to as the "tonnage method". To which the provisions of Paragraph 1 of Article 3 of the Supplementary Provisions apply: Gross tonnage pursuant to the provisions of the main text of the same paragraph

(2) Japan vessels other than the Japan vessels listed in the preceding item (limited to those built or started construction before the enforcement of this Ministerial Ordinance) Gross tonnage under Article 5, Paragraph 1 of the Tonnage Act

(3) Vessels other than Japan vessels whose tonnage stated in the certificate for the measurement of tonnage received by Japan under international agreements, etc. concluded by Japan is to have the same effect as the gross tonnage under Article 5, Paragraph 1 of the Tonnage Act (limited to vessels built or started construction before the enforcement of this Ministerial Ordinance). The gross tonnage that is to have the same effect as the gross tonnage in the same paragraph.

Supplementary Provisions (Ordinance No. 25 of the Ministry of Transport of June 27, 1961)

(Effective Date)

Article 1 This Ministerial Ordinance shall be effective on July 1, 1961 (hereinafter referred to as the "Enforcement Date"). It will be enforced from the following. provided, however, that the amended provisions to add paragraph (1) to Article 6 of the Dangerous Goods Shipping and Storage Regulations in Article 3, and the amended provisions to add Article 2 after Article 6 of the same Ordinance (limited to the part pertaining to Article 6-2-2). The amending provisions of Article 129-2 of the same Decree, the amending provisions of Article 130 of the same Decree, and the amending provisions of Article 135 of the same Decree shall come into effect on January 1, 1962.

(Transitional Measures Accompanying the Partial Revision of the Regulations for the Carriage and Storage of Dangerous Goods)

Article 3 The Dangerous Goods Carriage and Storage Regulations (hereinafter referred to as the "New Regulations") as amended pursuant to the provisions of Article 3 shall apply to the carrying, carriage or storage of dangerous goods that are currently brought onto a ship, carried by a ship, or stored on board a ship as of the effective date. Notwithstanding the provisions of this paragraph, the previous precedent shall continue until the carry-on, carriage or storage is completed.

2. The provisions of Article 6, Paragraph 3 of the New Dangerous Goods Regulations shall not apply to the carriage of dangerous goods in large metal containers that have received permission under Article 6-2, Paragraph 4 or Paragraph 8 of the Dangerous Goods Shipping and Storage Regulations before the amendment pursuant to the provisions of Article 3, or that have received permission under Article 6-2-3, Paragraph 4 of the New Dangerous Goods Regulations and have a label indicating that such permission has been attached.

3. Dangerous goods listed in Article 2-1-2(a) and (b) of the New Hazard Regulations by existing vessels (excluding those that fall under the category A substances, etc., Class B substances, etc., or Class C substances listed in Appendix 1 of the Enforcement Order of the Act on the Prevention of Marine Pollution and Maritime Disasters (Cabinet Order No. 201 of Showa 46)). Notwithstanding the provisions of Chapter 3 of Part II of the New Regulations, the previous precedent shall apply.

provided, however, that Article 253, Article 254, and Article 255 of the New Regulations (excluding paragraph (1) shall apply. ), Articles 318, 319, 321, 322 (except paragraph 2). This shall not apply to the matters stipulated in Articles 323 and 324.

4. Notwithstanding the provisions of the preceding paragraph, with respect to existing vessels that undergo major changes or modifications after the effective date, the Director of the Regional Transport Bureau (including the Director of the Transport Supervision Department) having jurisdiction over the location of the vessel shall be subject to such change or modification. The same shall apply hereinafter. According to the instructions of the following.
5. Dangerous goods listed in Article 2-1-2(a) and (b) of the New Hazard Regulations by existing vessels (limited to those that fall under Class A, B, or C substances listed in Appendix 1 of the Enforcement Order of the Act on the Prevention of Marine Pollution and Maritime Disasters). Notwithstanding the provisions of Chapter 3 of Part II of the New Regulations, the carriage shall be in accordance with the instructions of the Director General of the Regional Transport Bureau having jurisdiction over the location of the vessel. provided, however, that Article 253, Article 254, and Article 255 of the New Regulations (excluding paragraph (1) shall apply. ), Articles 318, 319, 321, 322 (except paragraph 2). This shall not apply to the matters stipulated in Articles 323 and 324.
6. The instructions given by the Director General of the Regional Transport Bureau having jurisdiction over the location of the vessel pursuant to the preceding paragraph shall be made in accordance with the Bulk Chemicals Code referred to in Regulation 1 (11) of Annex II of the International Convention for the Prevention of Pollution by Ships, 1973 and other international regulations.
7. Existing vessels (excluding liquefied gas bulk carriers and liquid chemical bulk carriers) Work to convert into a liquefied gas bulk carrier or liquid chemical bulk carrier after the effective date (excluding work to convert a vessel that is exclusively liquid chemical and is specified in the notification into a vessel that transports bulk loads). The provisions of the preceding four paragraphs shall not apply.
8. The application of penalties to acts committed before the effective date and to acts committed after the effective date with respect to matters that are subject to previous examples pursuant to the provisions of paragraphs (1) and (3) shall continue to apply.
- 9 Ministerial Ordinance to Partially Amend Ministerial Ordinances Establishing Technical Standards for Marine Pollution Prevention Equipment, etc. (Ministry of Transport Ordinance No. 40 of Showa 61. Hereinafter referred to as the "Revised Ministerial Ordinance" in this section. The application of penalties to acts committed between the effective date and April 5, 1962 with respect to matters that were

subject to the provisions of paragraph (3) before the amendment pursuant to the provisions of Article 13 and the matters that are deemed to be in accordance with the instructions of the director of the Regional Transport Bureau having jurisdiction over the location of the ship pursuant to the provisions of paragraph 5 after the amendment pursuant to the provisions of the same Article shall continue to apply.

Supplementary Provisions (Ministry of Transport Ordinance No. 38 of November 22, 1961)

(Effective Date)

1. This Ministerial Ordinance shall come into effect from the date of enforcement of the Act on the Partial Revision of the Act on the Regulation of Nuclear Source Materials, Nuclear Fuel Materials and Nuclear Reactors (Act No. 73 of 1961) (November 26, 1961).  
(Transitional Measures)
2. Article 91-9, Paragraph 1 of the Regulations on the Carriage and Storage of Dangerous Goods Prior to the amendment by this Ministerial Ordinance that has been applied for at the time of enforcement of this Ministerial Ordinance (including cases in which Article 384, Paragraph 2 applies *mutatis mutandis*). The provisions of Article 130, Paragraph 1 of the Regulations for the Carriage and Storage of Dangerous Goods as amended by this Ministerial Ordinance shall not apply to the confirmation pursuant to the provisions of Article 91-15, Paragraph 1.

Supplementary Provisions (Ordinance No. 40 of the Ministry of Transport of November 29, 1961)

(Effective Date)

Article 1 This Ministerial Ordinance is an Act to Partially Amend the Act on the Prevention of Marine Pollution and Maritime Disasters (Act No. 58 of 1958. Hereinafter referred to as the "Amendment Act". The date specified in Article 1, Item 4 of the Supplementary Provisions (April 6, 1962. Hereinafter referred to as the "Effective Date". It will be enforced from the following.

Supplementary Provisions (Ordinance No. 25 of the Ministry of Transport of March 25, 1962)

(Effective Date)

1. This Ministerial Ordinance shall come into effect on April 1, 1962.  
(Transitional Measures)
2. Fees for applications made before the enforcement of this Ministerial Ordinance shall continue to apply.

Supplementary Provisions (Ordinance No. 40 of the Ministry of Transport on May 21, 1962)

(Effective Date)

Article 1 This Ministerial Ordinance shall come into effect from the date of promulgation.

(Transitional Measures)

Article 2 Article 91-9, Paragraph 1 of the Regulations for the Carriage and Storage of Dangerous Goods Vessels prior to the amendment by this Ministerial Ordinance that has been applied for at the time of enforcement of this Ministerial Ordinance (including cases in which Article 384, Paragraph 2 applies mutatis mutandis). Confirmation pursuant to the provisions of the above shall be in accordance with the previous example.

2. Radioactive transports (excluding those stored in containers) that are currently being transported by or stored on ships at the time of the enforcement of this Ministerial Ordinance. Notwithstanding the provisions of Article 91-13, Paragraph 1, Item 1 of the Regulations for the Transportation and Storage of Dangerous Goods as amended by this Ministerial Ordinance, the method of loading the goods shall continue to be the same as before, until the transportation or storage is completed.
3. The application of penalties to acts committed before the date of enforcement of this Ministerial Ordinance shall continue to be in accordance with the previous examples.

Supplementary Provisions (Ministry of Transport Ordinance No. 33 of November 19, 1963)

(Effective Date)

1. This Ministerial Ordinance shall come into effect on November 26, 1963. (Transitional Measures)
2. With regard to the confirmation of the safety of radioactive transports currently carried by ships or stored on ships at the time of the enforcement of this Ministerial Ordinance, and the confirmation of the safety of transportation, the Dangerous Goods Shipping and Storage Regulations (hereinafter referred to as the "New Regulations") as amended by this Ministerial Ordinance shall be applied until such transportation or storage is completed. Article 91-9, paragraph (1) (including cases in which Article 384, paragraph (2) applies mutatis mutandis). and Article 91-15, paragraph (1), the previous precedent shall apply.
3. Radioactive materials, etc., as stipulated in the notification of Article 91-14-2 of the New Regulations that are currently being transported by ship at the time of enforcement of this Ministerial Ordinance (Dangerous Goods Shipping and Storage Regulations before the amendment by this Ministerial Ordinance (hereinafter referred to as the "Old Regulations")). Excluding those specified in the notification in Article 87, Paragraph 1, Item 2 and those listed in Article 91-3, Item 3 of the former Regulations. Notwithstanding the provisions of Article 91-21, Paragraph 1 of the New Regulations, the previous example shall continue to apply until the carriage is completed.
4. Notification of carriage in Form No. 5 of the Old Regulations made before the enforcement of this Ministerial Ordinance shall be deemed to be a notification in Form No. 5 of the New Regulations.

5. Radioactive materials, etc., as defined in the notification of Article 91-14-2 of the New Regulations commencing within four weeks (or two weeks in the case where transportation is carried out only within the area under the jurisdiction of the Regional Coast Guard Headquarters) from the date of enforcement of this Ministerial Ordinance (excluding those specified in the notification of Article 87, Paragraph 1, Item 2 of the Old Regulations and those listed in Article 91-3, Item 3 of the Old Regulations). With regard to the application of the provisions of Article 91-21, paragraph (1) of the New Regulations, the words "not later than two weeks before the date of commencement of carriage" or "no later than four weeks before the date of commencement of carriage" in the same paragraph shall be read as "in advance".
6. Radioactive materials, etc. specified in the notification of Article 91-14-2 of the New Regulations that are currently being transported by ships at the time of enforcement of this Ministerial Ordinance (limited to those listed in Article 91-3, Item 1 of the Old Regulations) Notwithstanding the provisions of Article 129, Paragraph 1, Item 4 of the New Regulations, the previous precedent shall continue to apply until the carriage is completed.

Supplementary Provisions (Ministry of Transport Ordinance No. 5 of February 27, 2019)

(Effective Date)

Article 1 This Ministerial Ordinance shall be effective on April 1 of the first year of Heisei (hereinafter referred to as the "Enforcement Date"). It will be enforced from the following.

(Transitional Measures Accompanying the Partial Revision of the Regulations for the Carriage and Storage of Dangerous Goods)

Article 3 Notwithstanding the provisions of the Regulations for the Transportation and Storage of Dangerous Goods on Ships after the amendment pursuant to the provisions of Article 5, the previous example shall continue to apply with respect to the carriage or storage of radioactive materials currently transported by ship or stored on board a ship at the time of the enforcement of this Ministerial Ordinance until such transportation or storage is completed.

Supplementary Provisions (March 31, 2012)

(Effective Date)

1. This Ministerial Ordinance shall come into effect on April 1, the first year of the Heisei era.

(Transitional Measures)

3. Fees for applications made before the enforcement of this Ministerial Ordinance shall continue to apply.

Supplementary Provisions (Ministry of Transport Ordinance No. 24 of July 20)

This Ministerial Ordinance shall come into effect from the date of promulgation.

Supplementary Provisions (Ministry of Transport Ordinance No. 12, May 31, 2002)

(Effective Date)

1. This Ministerial Ordinance shall come into effect from the date of promulgation. provided, however, that the provisions set forth in the following items shall come into effect from the date specified in each item.

(i) Amendments to Article 2, Article 129-3, Article 131, Schedule 5, Amendments to Form 11, Amendments to Form 12, and Amendments to Form 13 to Form 14 and to add one form after Form 12. June 5, 2002

(ii) Amendment of Article 3, Amendment of Article 5-6, Amendment of Article 6, Amendment of Article 6-2, Amendment of Article 6-3-2, Amendment of Article 6-6, Amendment of Article 6-6, Amendment of Article 8, Amendment of Article 10, Paragraph 1, Item 3, Amendment of Article 22-3, Amendment of Article 22-6, Amendment of Article 22-7, and Amendment of Article 394 January 1, 2003

(Transitional Measures)

2. With regard to the carriage of dangerous goods that are currently being transported by vessel at the time of the enforcement of the provisions set forth in item (ii) of the preceding paragraph, the revised Dangerous Goods Ship Transportation and Storage Regulations (hereinafter referred to as the "New Dangerous Regulations") shall be in accordance with the revised Dangerous Goods Regulations until such carriage is completed. (Limited to the part related to the provisions listed in Item 2 of the same paragraph). Notwithstanding the above, the previous example is still followed.

3. The Dangerous Goods Shipping and Storage Regulations before the amendment (hereinafter referred to as the "Old Dangerous Regulations"). The provisions of Article 22-3, paragraph (2) of the New Regulations shall not apply to containers that have received instructions from the Minister of Transport under Article 22-3, paragraph (2) only as long as the instructions are in effect.

(4) Containers and packages with an internal volume of 450 liters or less, or large metal containers, which have been inspected and labeled in force pursuant to the provisions of Article 129-3 of the old Hazard Regulations, shall be deemed to be small containers or large metal containers that have been inspected and labeled in effect in accordance with the provisions of Article 129-3 of the New Hazard Regulations.

5. An application for an inspection in the form of the old Hazard Regulation No. 11 made before June 4, 2002 shall be deemed to be an application for inspection in the form of the new Hazard Regulation No. 11.

6. Fees for applications made before June 4, 2002 shall still be subject to the previous example.
7. The application of penalties to acts committed before the enforcement of this Ministerial Ordinance (with respect to the amended provisions adding Article 1 after Article 6-6) and to acts committed on or after January 1, 2003 in relation to matters that are deemed to be subject to previous examples pursuant to the provisions of Paragraph 2 of the Supplementary Provisions, shall continue to be subject to the previous examples.

Supplementary Provisions (Ministry of Transport Ordinance No. 30 of November 29, 2002)

(Effective Date)

1. This Ministerial Ordinance shall be effective on January 1, 2003 (hereinafter referred to as the "Enforcement Date"). It will be enforced from the following. provided, however, that the provisions of paragraph 6 of the Supplementary Provisions shall come into effect from the date of promulgation.  
(Transitional Measures)
2. With regard to the transportation or storage of radioactive materials, etc., currently carried by ships or stored on ships at the time of enforcement of this Ministerial Ordinance, the Dangerous Goods Shipping and Storage Regulations (hereinafter referred to as the "New Hazard Regulations") as amended pursuant to the provisions of Article 1 shall apply. Notwithstanding the provisions of this paragraph, the previous precedent shall continue until the carriage or storage is completed.
3. The Dangerous Goods Shipping and Storage Regulations (hereinafter referred to as the "Old Dangerous Regulations") prior to the amendment pursuant to the provisions of Article 1 that have been applied for at the time of enforcement of this Ministerial Ordinance (hereinafter referred to as the "Old Dangerous Regulations"). Article 91-9-2, paragraph (1) (including cases in which Article 384, paragraph (2) applies mutatis mutandis). Approval pursuant to the provisions of this paragraph shall be in accordance with the previous examples.
4. Article 91-9-2, Paragraph 1 of the former Regulations (including cases in which Article 384, Paragraph 2 applies mutatis mutandis) Articles 89 to 91-2 of the New Hazard Regulations (including cases in which Article 384, Paragraph 2 applies mutatis mutandis) shall apply until December 31, 2004. and Article 91-4 (including cases in which Article 384, paragraph (2) applies mutatis mutandis). Notwithstanding the provisions of the above, the previous example shall apply.
5. Of the radioactive transports prescribed in the preceding paragraph, Class 1, Type II fissile transport, or Type III fissile transport under the provisions of the old Danger Regulations shall be deemed to be fissile transports under the provisions of the New Danger Regulations,

except in cases where the provisions of the same paragraph still apply to the previous examples.

6. The Minister of Transport may confirm Article 91-15(1) of the New Regulations even before the date of enforcement.
7. Notwithstanding the provisions of the new Regulations, the carriage of radioactive materials, etc., transported by vessel on or after the effective date of Article 91-15(1) of the Old Hazard Regulations shall continue to be subject to the previous precedent until such carriage is terminated.
8. The application of penalties to acts committed before the effective date and to acts committed after the effective date with respect to matters that are still subject to the previous precedent pursuant to the provisions of Paragraph 2 of the Supplementary Provisions and the preceding paragraph shall continue to be in accordance with the previous example.

Supplementary Provisions (Ministry of Transport Ordinance No. 2 of March 22, 2003)

(Effective Date)

1. This Ministerial Ordinance shall come into effect on April 1, 2003.  
(Transitional Measures)
2. Fees for applications made before the enforcement of this Ministerial Ordinance shall continue to apply.

Supplementary Provisions (Ordinance No. 33 of the Ministry of Transport on October 11, 2003)

(Effective Date)

Article 1 This Ministerial Ordinance is an Act to Partially Amend the Ship Safety Act and the Ship Personnel Act (Act No. 75 of 2003. Hereinafter referred to as the "Amendment Act". (February 1, 2004. Hereinafter referred to as the "Effective Date". It will be enforced from the following.

(Transitional Measures Concerning the Application of Penalties)

Article 9 The application of penalties to acts committed before the effective date and acts committed after the effective date with respect to matters that are subject to the previous precedent pursuant to the provisions of Article 3, Paragraph 1 of the Supplementary Provisions shall continue to be in accordance with the previous precedent.

Supplementary Provisions (Ministry of Transport Ordinance No. 5 of January 27, 2004)

(Effective Date)

Article 1 This Ministerial Ordinance shall be effective on February 1, 2004 (hereinafter referred to as the "Enforcement Date"). It will be enforced from the following.

(Transitional Measures Accompanying the Partial Revision of the Regulations for the Carriage and Storage of Dangerous Goods)

Article 2 With regard to the carriage of dangerous goods that are currently being transported by vessel on the effective date, the Dangerous Goods Shipping and Storage Regulations (hereinafter referred to as the "New Dangerous Regulations") as amended pursuant to the provisions of Article 1 shall apply. Notwithstanding the provisions of paragraph (2) of Article 23, the previous precedent shall continue until the carriage is terminated.

2. Vessels built or commenced construction prior to the effective date (hereinafter referred to as "existing vessels"). Notwithstanding the provisions of Article 22-11 of the New Hazard Regulations, the previous example shall still apply.
3. The provisions of Article 272, paragraph (2) of the New Regulations shall not apply to liquid chemical bulk carriers built or commenced construction before July 1, 1961.
4. Notwithstanding the provisions of the preceding two paragraphs, with respect to existing vessels that undergo major changes or modifications after the effective date, the Director of the Regional Transport Bureau (including the Director of the Transport Supervision Department) having jurisdiction over the location of the vessel shall be subject to such change or modification. According to the instructions of the following.
5. A certificate of conformity for a dangerous goods carrier pursuant to the provisions of the Dangerous Goods Shipping and Storage Regulations prior to the amendment pursuant to the provisions of Article 1 shall be deemed to be a certificate of conformity for a dangerous goods carrier under the corresponding provisions of the new Dangerous Goods Regulations.
6. The application of penalties to acts committed before the effective date and acts committed after the effective date with respect to matters that are still subject to the previous precedent pursuant to the provisions of paragraph (1) shall continue to be in accordance with the previous precedent.

Supplementary Provisions (Ministry of Transport Ordinance No. 30 of October 28, 2004)

(Effective Date)

Article 1 This Ministerial Ordinance is an Act to Partially Amend the Act on the Prevention of Marine Pollution and Maritime Disasters (Act No. 38 of 2004. Hereinafter referred to as the "Amendment Act". It will come into effect from the date of enforcement (April 4, Heisei 5).

Supplementary Provisions (Ministry of Transport Ordinance No. 43 of December 28, 2005)

(Effective Date)

Article 1 This Ministerial Ordinance shall come into effect on January 1, 2006. provided, however, that the provisions of Article 161, Article 163,

Article 164, Article 226, Article 226, Article 227, Article 229, Article 230, and Article 230 shall come into effect on October 1, 2006.

(Transitional Measures)

Article 2 The amended Dangerous Goods Shipping and Storage Regulations (hereinafter referred to as the "New Dangerous Regulations") shall apply to vessels that are deemed acceptable by the Director of the Regional Transport Bureau pursuant to the provisions of Article 337, Paragraph 2 and Article 348, Paragraph 2 of the Dangerous Goods Shipping and Storage Regulations before the amendment. Notwithstanding the provisions of the above, the previous example shall apply.

2. Notwithstanding the provisions of Articles 264, 268 to 270, 286 to 289, 292 and 324 of the New Regulations, with respect to liquid chemical bulk carriers not engaged in international voyages and built or commenced on or about January 1, 2006, and liquid chemical bulk carriers engaged in international voyages, Until June 30, 2006, the previous example will still apply.
3. Notwithstanding the provisions of Articles 292 and 324 of the New Regulations, the previous precedent shall apply to liquid chemical bulk carriers built or commenced before January 1, 2006.
4. Notwithstanding the provisions of Articles 161, 163, 164, 226 to 227, 229 and 230-2 of the New Regulations, the previous examples shall apply to liquefied gas bulk carriers built or commenced on or before October 1, 2006.

Supplementary Provisions (Ministry of Transport Ordinance No. 9 of March 29, 2006)

(Effective Date)

1. This Ministerial Ordinance shall come into effect on April 1, 2006.  
(Transitional Measures)
2. Fees for applications made before the enforcement of this Ministerial Ordinance shall continue to apply.

Supplementary Provisions (Ministry of Transport Ordinance No. 12 of March 30, 2006)

1. This Ministerial Ordinance shall come into effect from the date of promulgation.

Supplementary Provisions (Ministry of Transport Ordinance No. 19 of May 19, 2006)

(Effective Date)

Article 1 This Ministerial Ordinance shall be effective on May 20, 2006 (hereinafter referred to as the "Enforcement Date"). It will be enforced from the following.

(Transitional Measures Accompanying the Partial Revision of the Regulations for the Carriage and Storage of Dangerous Goods)

Article 5 Notwithstanding the provisions of Article 22-11 of the Regulations for the Carriage and Storage of Dangerous Goods Vessels as

amended pursuant to the provisions of Article 6, fire prevention and other measures for existing vessels of less than 12 meters in length that are not engaged in international voyages may still be subject to the previous examples. provided, however, that in the case of a major change or modification after the effective date, the director of the regional transport bureau (including the director of the transport supervision department) who has jurisdiction over the location of the vessel shall be notified after the change or modification. According to the instructions of the following.

2. The application of penalties for acts committed before the effective date shall continue to be in accordance with the previous examples.

Supplementary Provisions (Ministry of Transport Ordinance No. 25 of June 24, 2006)

(Effective Date)

Article 1 This Ministerial Ordinance shall come into effect from the date of promulgation.

Supplementary Provisions (Ministry of Transport Ordinance No. 33 of July 15, 2006)

(Effective Date)

Article 1 This Ministerial Ordinance shall come into effect on July 18, 2006.

Supplementary Provisions (Ordinance No. 45 of the Ministry of Transport of September 30, 2006)

(Effective Date)

Article 1 This Ministerial Ordinance shall come into effect on October 1, 2006.

(Transitional Measures Accompanying the Partial Revision of the Regulations for the Carriage and Storage of Dangerous Goods)

Article 4 In the case of fixed fire-extinguishing gas fire extinguishing equipment that uses halides as a fire extinguishing agent in conformity with the provisions of the Regulations for the Carriage and Storage of Dangerous Goods prior to the amendment pursuant to the provisions of Article 3, which is currently installed on a vessel built or commenced on October 1, 2006, the previous example shall apply, provided that it is still installed on the vessel. provided, however, that in the case of such vessels that undergo major changes or modifications on or after the same date, the Director of the Regional Transport Bureau (including the Director of the Transport Supervision Department) who has jurisdiction over the location of the vessel shall be notified after such change or modification. According to the instructions of the following.

Supplementary Provisions (Ministry of Transport Ordinance No. 54 of December 13, 2006)

(Effective Date)

1. This Ministerial Ordinance shall come into effect on January 1, 2007.

(Transitional Measures)

2. Notwithstanding the provisions of the amended Regulations on the Transportation and Storage of Dangerous Goods by Ship, the carriage of dangerous goods currently being carried by ship at the time of the enforcement of this Ministerial Ordinance shall continue to be subject to the previous precedent until such carriage is terminated.
3. The application of penalties to acts committed before the enforcement of this Ministerial Ordinance and acts committed after the enforcement of this Ministerial Ordinance in cases where the provisions of the preceding paragraph still apply to the previous precedents shall continue to apply.

Supplementary Provisions (Ministry of Transport Ordinance No. 65 of December 8, 2007)

This Ministerial Ordinance shall come into effect from the date of enforcement of the Act on the Prevention of Marine Pollution and Maritime Disasters (Act No. 90 of 1997) (January 17, 2008).

Supplementary Provisions (February 27, 2008 Ministry of Transport Ordinance No. 10) Extract

(Effective Date)

Article 1 This Ministerial Ordinance shall come into effect from the date of promulgation.

(Transitional Measures Accompanying the Partial Revision of the Regulations for the Carriage and Storage of Dangerous Goods)

Article 3 The submission of a notification of change in the carriage of radioactive materials, etc., pursuant to the provisions of Article 91-21, Paragraph 3 of the Dangerous Goods Shipping and Storage Regulations prior to the amendment pursuant to the provisions of Article 3 before the enforcement of this Ministerial Ordinance shall be deemed to have been made in accordance with the provisions of Article 91-21, Paragraph 1 of the Dangerous Goods Shipping and Storage Regulations after the amendment pursuant to the provisions of Article 3.

2. The application of penalties for acts committed before the enforcement of this Ministerial Ordinance shall continue to be in accordance with the previous examples.

Supplementary Provisions (Ministry of Transport Ordinance No. 64 of December 17, 2008)

(Effective Date)

1. This Ministerial Ordinance shall come into effect on January 1, 2009. provided, however, that the amended provisions of Article 41, paragraph (1) shall come into effect on April 1, 2009.

(Transitional Measures)

2. Notwithstanding the provisions of the amended Regulations on the Transportation and Storage of Dangerous Goods by Ship, the carriage of dangerous goods currently being carried by ship at the time of the

enforcement of this Ministerial Ordinance shall continue to be subject to the previous precedent until such carriage is terminated.

Supplementary Provisions (Ministry of Transport Ordinance No. 15, March 21, 2009)

(Effective Date)

1. This Ministerial Ordinance shall come into effect on April 1, 2009.

(Transitional Measures)

2. Fees for applications made before the enforcement of this Ministerial Ordinance shall continue to apply.

Supplementary Provisions (Ministry of Transport Ordinance No. 66 of September 26, 2009)

This Ministerial Ordinance shall come into effect on September 26, 2012.

Supplementary Provisions (Ministry of Transport Ordinance No. 83 of December 15, 1999)

This Ministerial Ordinance shall come into effect on January 1, 2010.

Supplementary Provisions (Ministry of Transport Ordinance No. 86 of December 15, 1999)

This Ministerial Ordinance shall come into effect on January 1, 2010.

Supplementary Provisions (Ministry of Transport Ordinance No. 23 of April 16, 10)

(Effective Date)

Article 1 This Ministerial Ordinance shall be effective on July 1, 2010

(hereinafter referred to as the "Enforcement Date"). It will be enforced from the following.

(Transitional Measures)

Article 2 With regard to the carriage of liquefied gas substances currently being transported by liquefied gas bulk carriers on the effective date, the Dangerous Goods Shipping and Storage Regulations (hereinafter referred to as the "New Hazard Regulations") as amended pursuant to the provisions of Article 1 shall apply until such carriage is completed. Notwithstanding the provisions of Article 235, paragraph (1), the previous precedent shall apply.

2. Vessels built or commenced construction prior to the effective date (hereinafter referred to as "existing vessels"). Notwithstanding the provisions of Article 22-11 of the New Hazard Regulations, the previous example shall still apply.
3. Notwithstanding the provisions of Article 198, paragraph (1) of the New Regulations, the previous precedent shall apply to the venting devices of cargo tanks and other vessels of liquefied gas bulk carriers built or commenced before the effective date.
4. Notwithstanding the provisions of the preceding two paragraphs, with respect to existing vessels that undergo major changes or modifications after the effective date, the Director of the Regional Transport Bureau (including the Director of the Transport Supervision Department) having

jurisdiction over the location of the vessel shall be subject to such change or modification. According to the instructions of the following.

Supplementary Provisions (June 30, 2010 Ministry of Transport Ordinance No. 44)

(Effective Date)

Article 1 This Ministerial Ordinance shall be effective on July 1, 2010 (hereinafter referred to as the "Enforcement Date"). It will be enforced from the following.

(Transitional Measures Accompanying the Partial Revision of the Regulations for the Carriage and Storage of Dangerous Goods)

Article 3 Notwithstanding the provisions of Article 338, Paragraph 2 and Article 359 of the Regulations for the Carriage and Storage of Dangerous Goods Vessels as amended pursuant to the provisions of Article 2, the previous precedent shall apply to the hold on which tanks are to be installed on existing wooden vessels that are tank ships.

2. Notwithstanding the provisions of the preceding paragraph, with respect to the hold of an existing wooden vessel referred to in the preceding paragraph that undergoes a major change or modification on or after the effective date, the Director of the Regional Transport Bureau (including the Director of the Transport Supervision Department) having jurisdiction over the location of the vessel shall be subject to such change or remodeling. According to the instructions of the following.

Supplementary Provisions (Ministry of Transport Ordinance No. 31, June 21, 1911)

This Ministerial Ordinance shall come into effect on July 1, 2011.

Supplementary Provisions (Ministry of Transport Ordinance No. 9 of March 22, 2012)

(Effective Date)

1. This Ministerial Ordinance shall come into effect on April 1, 2012.

(Transitional Measures)

2. Fees for applications made before the enforcement of this Ministerial Ordinance shall continue to apply.

Supplementary Provisions (Ministry of Transport Ordinance No. 38 of November 28, 2012)

(Effective Date)

Article 1 This Ministerial Ordinance shall be effective on January 1, 2013 (hereinafter referred to as the "Enforcement Date"). It will be enforced from the following.

(Transitional Measures Accompanying the Partial Revision of the Regulations for the Carriage and Storage of Dangerous Goods)

Article 2 In the case of a vessel built before the effective date of this Ministerial Ordinance, the Dangerous Goods Shipping and Storage Regulations (hereinafter referred to as the "New Hazard Regulations") after the amendment pursuant to the provisions of Article 1 shall be

carried out even before the effective date. Disaster prevention measures may be taken in accordance with the provisions of Article 22-17, and inspections prescribed in Article 5, Paragraph 1 of the Ship Safety Act pertaining to such measures may be taken.

(2) The Minister of Transport may confirm Article 91-15(1) of the New Regulations even before the date of enforcement.

Supplementary Provisions (Ministry of Transport Ordinance No. 39 of November 29, 2012)

(Effective Date)

Article 1 This Ministerial Ordinance shall come into effect on January 6, 2013.

Supplementary Provisions (March 15, 2013 Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 38)

(Effective Date)

Article 1 This Ministerial Ordinance shall come into effect on April 1, 2013.

Supplementary Provisions (Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 42 of March 26, 13)

This Ministerial Ordinance shall come into effect from the date of enforcement of the Act on the Development of Related Laws for the Use of Information and Communication Technology for the Delivery of Documents, etc. (April 1, 13).

Supplementary Provisions (Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 72 of March 30, 13)

This Ministerial Ordinance shall come into effect on April 1, 2013.

Supplementary Provisions (June 25, 2013 Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 101)

(Effective Date)

Article 1 This Ministerial Ordinance shall be effective on July 1, 2013 (hereinafter referred to as the "Enforcement Date"). It will be enforced from the following.

(Transitional Measures Accompanying the Partial Revision of the Regulations for the Carriage and Storage of Dangerous Goods)

Article 3 With respect to radioactive materials, etc. that are currently transported by ship or stored on board a ship at the time of the enforcement of this Ministerial Ordinance, the Dangerous Goods Shipping and Storage Regulations (hereinafter referred to as the "New Hazard Regulations") as amended pursuant to the provisions of Article 2 shall be subject to the provisions of Article 2 until such transportation or storage is completed. Notwithstanding the provisions of the above, the previous example shall apply.

2. The Dangerous Goods Shipping and Storage Regulations prior to the amendment pursuant to the provisions of Article 2 prior to the effective date (hereinafter referred to as the "Old Dangerous Regulations").

Notwithstanding the provisions of the new Regulations, the previous precedent shall apply to radioactive materials transported by ship on or after the effective date of Article 91-15, subject to confirmation in paragraph (1) of Article 91-15, until such carriage is terminated.

3. The Minister of Land, Infrastructure, Transport and Tourism may confirm Article 91-15, Paragraph 1 of the New Regulations even before the effective date.
4. At the time of the enforcement of this Ministerial Ordinance, Article 91-9-2, Paragraph 1 of the former Regulations on Hazards (including cases in which Article 384, Paragraph 2 of the former Regulations applies mutatis mutandis). Approval for a person who has applied for approval pursuant to the provisions of this paragraph shall be in accordance with the previous example.
5. Article 91-9-2, Paragraph 1 of the former Dangerous Regulations (including cases in which Article 384, Paragraph 2 of the former Danger Regulations applies mutatis mutandis) before the effective date. Until December 31, 2015, Article 89 to Article 91-2-4, Article 91-4, and Article 91-4-2 of the New Regulations (including cases where these provisions apply mutatis mutandis in Article 384, paragraph 2). Notwithstanding the provisions of the above, the previous example shall apply. The same shall apply to radioactive transports that have been approved in accordance with the provisions of the preceding paragraph on or after the effective date.

(Transitional Measures Concerning Penalties)

Article 6 The application of penalties to acts committed before the effective date and acts committed after the effective date with respect to matters that are still subject to previous examples pursuant to the provisions of these Supplementary Provisions shall continue to be in accordance with the previous precedents.

Supplementary Provisions (Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 141 of November 30, 13)

(Effective Date)

1. This Ministerial Ordinance shall come into effect on January 1, 2014.  
(Transitional Measures)
2. Notwithstanding the provisions of the amended Regulations on the Transportation and Storage of Dangerous Goods by Ship, the carriage of dangerous goods currently being carried by ship at the time of the enforcement of this Ministerial Ordinance shall continue to be subject to the previous precedent until such carriage is terminated.
3. The application of penalties to acts committed before the enforcement of this Ministerial Ordinance and acts committed after the enforcement of this Ministerial Ordinance in cases where the provisions of the preceding paragraph still apply to the previous precedents shall continue to apply.

Supplementary Provisions (Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 56, April 1, 14)

(Effective Date)

Article 1 This Ministerial Ordinance shall be effective on July 1, 2014 (hereinafter referred to as the "Enforcement Date"). It will be enforced from the following.

(Transitional Measures)

Article 2 Vessels built or commenced construction before the effective date (hereinafter referred to as "existing vessels") The Dangerous Goods Ship Transportation and Storage Regulations (hereinafter referred to as the "New Hazard Regulations") after the amendment by this Ministerial Ordinance shall apply only to the case where the hoses currently installed at the time of enforcement of this Ministerial Ordinance are currently installed on the vessel concerned. Article 187 (including cases in which Article 284 applies mutatis mutandis) Notwithstanding the provisions of the above, the previous example shall apply.

2. Liquid chemical bulk carriers built or commenced construction prior to the effective date (hereinafter referred to as "existing liquid bulk carriers"). For the venting device of the cargo tank of the gross tonnage of 500 tons or more, on July 17, Heisei 17 (periodic inspection or interim inspection to be carried out on the vessel (limited to those that are loaded or overloaded in preparation for the inspection).

Notwithstanding the provisions of Article 292, Paragraph 2 of the New Regulations, the time of the inspection shall continue to apply until the time of the inspection.

3. Notwithstanding the provisions of the new Regulations, the aeration system for the cargo tanks of existing liquid bulk carriers of less than 500 gross tonnage shall continue to apply.

4. Notwithstanding the provisions of paragraphs (1) and (2), after such change or modification, the Director of the Regional Transport Bureau (including the Director of the Transport Supervision Department) having jurisdiction over the location of the vessel shall be subject to such change or modification of an existing vessel that undergoes a major change or modification after the effective date. According to the instructions of the following.

Supplementary Provisions (June 25, 2014 Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 75)

(Effective Date)

Article 1 This Ministerial Ordinance shall be effective on July 1, 2014 (hereinafter referred to as the "Enforcement Date"). It will be enforced from the following.

(Transitional Measures Accompanying the Partial Revision of the Regulations for the Carriage and Storage of Dangerous Goods)

Article 4 With respect to existing vessels, the Dangerous Goods Shipping and Storage Regulations (hereinafter referred to as the "New Hazard Regulations") after the amendment pursuant to the provisions of Article 3 shall apply. Notwithstanding the provisions of the above, the previous example shall apply.

2. Notwithstanding the provisions of the preceding paragraph, notwithstanding the provisions of the Regulations on Fire Fighting Equipment for Ships, which apply mutatis mutandis to Article 165-2 and Article 272, Paragraph 3 of the New Regulations, periodic inspections or interim inspections (limited to those that are docked for the preparation of inspections) shall be conducted for the first time after the effective date with respect to the vessels engaged in international voyages. Until the time of, it can still be used according to the previous example.
3. Notwithstanding the provisions of the preceding two paragraphs, with respect to existing vessels that undergo major changes or modifications on or after the effective date, the Director of the Regional Transport Bureau (including the Director of the Transport Supervision Department) having jurisdiction over the location of the vessel shall be subject to such change or modification. According to the instructions of the following.

Supplementary Provisions (Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 79 of June 28, 14)

(Effective Date)

Article 1 This Ministerial Ordinance shall come into effect on July 1, 2014.

(Transitional Measures)

Article 2 Applications, certificates, and other documents in the form or format before the amendment by this Ministerial Ordinance that are in force at the time of enforcement of this Ministerial Ordinance may still be used for the time being, regardless of the respective form or form after the amendment by this Ministerial Ordinance.

Supplementary Provisions (Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 98 of August 30, 14)

(Effective Date)

Article 1 This Ministerial Ordinance shall come into effect from the date of enforcement of the Act on the Prevention of Marine Pollution and Maritime Disasters (January 1, 15).

Supplementary Provisions (Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 91 of September 16, 15)

This Ministerial Ordinance shall come into effect from the date of promulgation.

Supplementary Provisions (October 1, 15, Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 109)

(Effective Date)

Article 1 This Ministerial Ordinance shall come into effect from the date of promulgation.

(Transitional Measures Accompanying the Partial Revision of the Regulations for the Carriage and Storage of Dangerous Goods)

Article 5 With regard to the application of the provisions of Article 91-9, Paragraph 7 of the Dangerous Goods Shipping and Storage Regulations after the amendment by this Ministerial Ordinance in the case of confirmation by a designated transport confirmation agency pursuant to the provisions of Article 61-42 of the former Nuclear Reactor Regulation Act, the words "confirmation by the Nuclear Safety Agency" shall be replaced with "Confirmation of the Nuclear Safety Agency and Confirmation of the Designated Transportation Confirmation Organization pursuant to the provisions of Article 61-42 of the Act on the Regulation of Nuclear Source Materials, Nuclear Fuel Materials and Nuclear Reactors (Act No. 166 of Showa 32) before the amendment pursuant to Article 8 of the Supplementary Provisions of the Nuclear Safety Agency Act (Act No. 166 of 14).

Supplementary Provisions (December 22, 1915 Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 118)

(Effective Date)

Article 1 This Ministerial Ordinance shall be effective on January 1, 2016 (hereinafter referred to as the "Enforcement Date"). It will be enforced from the following.

(Transitional Measures)

Article 2 With regard to the carriage or storage of dangerous goods currently carried by or stored on board a ship at the time of the enforcement of this Ministerial Ordinance, the Dangerous Goods Shipping and Storage Regulations (hereinafter referred to as the "New Dangerous Regulations") as amended by this Ministerial Ordinance shall apply until such transportation or storage is completed. Notwithstanding the provisions of the above, the previous example shall apply.

2. Dangerous Goods Shipping and Storage Regulations prior to the amendment by this Ministerial Ordinance (hereinafter referred to as the "Old Dangerous Regulations"). A small, medium-sized or large metal container that has been inspected and in effect pursuant to the provisions of Article 129-3 shall be deemed to be a small container, IBC container, or portable tank that has been inspected and validated in accordance with the provisions of Article 113 of the New Hazard Regulations, respectively.
3. Any disposition, procedure, or other action taken pursuant to the provisions of the old Hazard Regulations prior to the effective date and for which there is a corresponding provision in the New Danger Regulations shall be deemed to be a disposition, procedure, or other act made pursuant to these provisions.

4. Article 62 of the New Regulations (including cases in which Article 68 applies mutatis mutandis) and Article 86 may be approved even before the enforcement of this Ministerial Ordinance.
5. Applications, certificates, and other documents in the form or format before the amendment by this Ministerial Ordinance that are in force at the time of enforcement of this Ministerial Ordinance may still be used for the time being, regardless of the respective form or form after the amendment by this Ministerial Ordinance.
6. The application of penalties to acts committed before the enforcement of this Ministerial Ordinance and acts committed after the enforcement of this Ministerial Ordinance in cases where the provisions of paragraph (1) still apply to the previous precedents shall be in accordance with the previous examples.

Supplementary Provisions (February 26, 2016 Ministry of Land,  
Infrastructure, Transport and Tourism Ordinance No. 6)  
(Effective Date)

Article 1 This Ministerial Ordinance shall come into effect on March 1, 2016.

Supplementary Provisions (March 31, 16, Ministry of Land,  
Infrastructure, Transport and Tourism Ordinance No. 34)

This Ministerial Ordinance shall come into effect from the date of promulgation.

Supplementary Provisions (April 1, 16, Ministry of Land,  
Infrastructure, Transport and Tourism Ordinance No. 51)  
(Effective Date)

1. This Ministerial Ordinance shall come into effect from the date of promulgation. provided, however, that the amended provisions set forth in the following items shall come into effect from the date listed in each item.

1. Abbreviation

- (ii) Amendments to Articles 118, 119, 123 and Schedule 1, Amendments to the Sections of the Tanabe Coast Guard Division of the Coast Guard Headquarters of the Fifth Region of Appendix 2, Amendments to the Sections of the Coast Guard Departments of the Fifth Regional Coast Guard Headquarters of Schedule 4, Amendments to the Sections of the Coast Guard Departments of the Fifth Regional Coast Guard Headquarters of the Attached Schedules, Amendments to the Sections of Schedule 7 and Schedule 12, Amendments to the Coast Guard and Rescue Division of Schedule 15, and Amendments to Paragraphs 2 to 5 of the Supplementary Provisions. October 1, 16

Supplementary Provisions (April 23, 2016 Ministry of Land,  
Infrastructure, Transport and Tourism Ordinance No. 59)  
(Effective Date)

Article 1 This Ministerial Ordinance shall come into effect from the date of enforcement of the Act. provided, however, that the provisions of Articles 10 to 13, 39 to 43, Article 79, Paragraph 1, Articles 81 to 84, Articles 5 to 15 of the Supplementary Provisions, and the amended provisions of Articles 16 to 19 of the Supplementary Provisions shall come into effect from the date of enforcement of the provisions stipulated in the proviso to Article 1 of the Supplementary Provisions of the Act (April 23, 2016).

Supplementary Provisions (October 28, 16, Ministry of Land,  
Infrastructure, Transport and Tourism Ordinance No. 93)

(Effective Date)

Article 1 This Ministerial Ordinance is an Act to Partially Amend the Act on the Prevention of Marine Pollution and Maritime Disasters (hereinafter referred to as the "Amendment Act"). It shall come into effect from the date of enforcement.

Supplementary Provisions (December 21, 16, Ministry of Land,  
Infrastructure, Transport and Tourism Ordinance No. 108)

(Effective Date)

Article 1 This Ministerial Ordinance shall come into effect on January 1, 2017.

(Transitional Measures)

Article 2 Notwithstanding the provisions of the Regulations for the Carriage and Storage of Dangerous Goods on Ships as amended by this Ministerial Ordinance, the carriage or storage of dangerous goods currently carried by or stored on board a ship at the time of the enforcement of this Ministerial Ordinance shall continue to be subject to the previous precedent until such carriage or storage is completed.

2. The application of penalties to acts committed before the enforcement of this Ministerial Ordinance and acts committed after the enforcement of this Ministerial Ordinance in cases where the provisions of the preceding paragraph still apply to the previous precedents shall continue to apply.

Supplementary Provisions (Ministry of Land, Infrastructure, Transport  
and Tourism Ordinance No. 19 of March 28, 17)

(Effective Date)

1. This Ministerial Ordinance shall come into effect on April 1, 2017.

(Transitional Measures)

2. Fees for applications made before the enforcement of this Ministerial Ordinance shall continue to apply.

Supplementary Provisions (Ministry of Land, Infrastructure, Transport  
and Tourism Ordinance No. 61, June 1, 17)

This Ministerial Ordinance shall come into effect from the date of enforcement of the Act on the Prevention of Radiation Hazards Caused by Radioactive Isotopes, etc. (June 1, 17).

Supplementary Provisions (December 1, 17, Ministry of Land,  
Infrastructure, Transport and Tourism Ordinance No. 110)

(Effective Date)

Article 1 This Ministerial Ordinance shall come into effect from the date of promulgation.

Supplementary Provisions (March 31, 18, Ministry of Land,  
Infrastructure, Transport and Tourism Ordinance No. 30)

(Effective Date)

Article 1 This Ministerial Ordinance shall come into effect on April 1, 2018.

(Transitional Measures)

Article 2 Applications, certificates, and other documents in the form before the amendment by this Ministerial Ordinance that are in force at the time of enforcement of this Ministerial Ordinance may still be used for the time being, regardless of the respective forms after the amendment by this Ministerial Ordinance.

Supplementary Provisions (Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 68, May 31, 18)

(Effective Date)

Article 1 This Ministerial Ordinance shall come into effect from the date of promulgation.

(Transitional Measures)

Article 2 Notwithstanding the provisions of the Regulations for the Transportation and Storage of Dangerous Goods on Ships after the amendment by this Ministerial Ordinance, the previous examples shall continue to apply to applications that have already been made at the time of the enforcement of this Ministerial Ordinance.

2. Notwithstanding the provisions of the Regulations for the Carriage and Storage of Dangerous Goods on Ships after the amendment by this Ministerial Ordinance, the carriage of dangerous goods that are currently being transported on June 1, 2018 may still be carried in accordance with the previous examples.

Supplementary Provisions (October 18, 18, Ministry of Land,  
Infrastructure, Transport and Tourism Ordinance No. 102)

(Effective Date)

Article 1 This Ministerial Ordinance shall be effective on January 1, 2019 (hereinafter referred to as the "Enforcement Date"). It will be enforced from the following.

(Transitional Measures Accompanying the Partial Revision of the Regulations for the Carriage and Storage of Dangerous Goods)

Article 2 Notwithstanding the provisions of Article 2, Paragraph 3 of the Supplementary Provisions of the Ministerial Ordinance (Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 56 of 14) Partially Amending the Dangerous Goods Ship Transportation and Storage Regulations

with respect to the cargo tank venting system of liquid chemical bulk carriers of less than 500 tons gross tonnage built or started construction between July 1, 1961 and June 30, 14, 2014. The Dangerous Goods Shipping and Storage Regulations as amended pursuant to the provisions of Article 2 (hereinafter referred to as the "New Dangerous Regulations"). The provisions of paragraph (2) of Article 292 shall apply. provided, however, that in the case of vehicles not engaged in international voyages, periodic inspections or interim inspections to be conducted first after the effective date (limited to those that dock or overhead in preparation for inspections). Until the time of, it can still be used according to the previous example.

2. Notwithstanding the provisions of the preceding paragraph, with respect to a vessel stipulated in the proviso of the preceding paragraph that undergoes a major change or modification after the effective date, the Director of the Regional Transport Bureau (including the Director of the Transport Supervision Department) having jurisdiction over the location of the vessel shall be notified after such change or modification. The same shall apply hereinafter. According to the instructions of the following.
3. Vessels built or started construction before July 1, Showa 61 (hereinafter referred to as "existing ships in Showa 61"). Dangerous goods listed in Article 2-1-2(a) and (b) of the New Hazard Regulations (excluding those that fall under the Class X substances, Y-class substances, etc., or Z-class substances, etc., listed in Appendix 1 of the Enforcement Order of the Act on the Prevention of Marine Pollution, etc. and Maritime Disasters (Cabinet Order No. 201 of Showa 46)). Notwithstanding the provisions of Chapter 3 of Part II of the New Regulations, the previous precedent shall apply. provided, however, that Article 253, Article 254, and Article 255 of the New Regulations (excluding paragraph (1) shall apply. ), Articles 318, 319, 321, 322 (except paragraph 2). This shall not apply to the matters stipulated in Articles 323 and 324.
4. Notwithstanding the provisions of the preceding paragraph, with respect to vessels that undergo major changes or modifications after the effective date, the changes or modifications shall be subject to the instructions of the Director General of the Regional Transport Bureau having jurisdiction over the location of the vessels.
5. Dangerous goods listed in Article 2-1-2(a) and (b) of the New Hazard Regulations by existing vessels in Showa 61 (limited to those that fall under the Class X substances, Y-class substances, etc., or Z-class substances listed in Appendix 1 of the Enforcement Order of the Act on the Prevention of Marine Pollution, etc. and Maritime Disasters). Notwithstanding the provisions of Chapter 3 of Part II of the New Regulations, the carriage shall be in accordance with the instructions of

the Director General of the Regional Transport Bureau having jurisdiction over the location of the vessel. provided, however, that Article 253, Article 254, and Article 255 of the New Regulations (excluding paragraph (1) shall apply. ), Articles 318, 319, 321, 322 (except paragraph 2).

This shall not apply to the matters stipulated in Articles 323 and 324.

6. The instructions given by the Director of the Regional Transport Bureau having jurisdiction over the location of the vessel pursuant to the preceding paragraph shall be made in accordance with the Bulk Chemicals Code referred to in Annex II, Regulation 4 of Annex II, 1978, as amended by the 1978 Protocol to the International Convention for the Prevention of Pollution from Ships, 1973, and other international regulations.

7 Existing vessels in Showa 61 (excluding liquefied gas bulk carriers and liquid chemical bulk carriers) Work to convert into a liquefied gas bulk carrier or a liquid chemical bulk carrier after the effective date (excluding work for converting a vessel to carry bulk cargo exclusively liquid chemicals specified in the notification). The provisions of the preceding four paragraphs shall not apply.

Supplementary Provisions (Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 109 of December 5, 18)

This Ministerial Ordinance shall come into effect on January 1, 2019.

Supplementary Provisions (Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 46 of June 23, 2020)

(Effective Date)

Article 1 This Ministerial Ordinance shall be effective on July 1, 2020 (hereinafter referred to as the "Enforcement Date"). It will be enforced from the following.

(Transitional Measures)

Article 2 Fire hoses that conform to the provisions of Article 162, Paragraph 1, Item 2 (b) of the Dangerous Goods Shipping and Storage Regulations prior to the amendment by this Ministerial Ordinance that are currently installed on a vessel built or commenced to be built before the effective date of this Ministerial Ordinance at the time of enforcement of this Ministerial Ordinance shall be provided that they are continuously furnished on the vessel. It shall be deemed to conform to the provisions of Article 162, Paragraph 1, Item 2 (b) of the Regulations on the Carriage and Storage of Dangerous Goods as amended by this Ministerial Ordinance.

Supplementary Provisions (Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 88 of October 29, 2020)

(Effective Date)

Article 1 This Ministerial Ordinance shall be effective on January 1, 2011 (hereinafter referred to as the "Enforcement Date"). It will be enforced from the following.

Supplementary Provisions (Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 102 of December 22, 2020)

(Effective Date)

1. This Ministerial Ordinance shall be effective on January 1, 2011 (referred to as the "Enforcement Date" in the following paragraph). It will be enforced from the following.  
(Transitional Measures)
2. The equipment attached to the cargo pump room of a liquid chemical bulk carrier built or commenced construction before the effective date shall be subject to the operation of the cargo pump room on January 1, 2014 (periodic or interim inspections to be carried out on the vessel (limited to those that dock or overhead in preparation for the inspection). Notwithstanding the provisions of Article 272, Paragraph 3 of the Dangerous Goods Shipping and Storage Regulations as amended by this Ministerial Ordinance, the previous example may still be used until the time of the inspection.

Supplementary Provisions (Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 70 of December 25, 2011)

This Ministerial Ordinance shall come into effect on January 1, 2022.

Supplementary Provisions (April 1, 2022)

(Effective Date)

Article 1 This Ministerial Ordinance is an Act to Partially Amend the Port Regulation Act and the Maritime Traffic Safety Act (hereinafter referred to as the "Amendment Act" in this Article and the following Article). It will come into effect from the date of enforcement (July 1, 22).

Supplementary Provisions (September 24, 2012, Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 47)

(Effective Date)

Article 1 This Ministerial Ordinance shall be effective on January 1, 2013 (hereinafter referred to as the "Enforcement Date"). It will be enforced from the following.

Supplementary Provisions (Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 60 of December 20, 2022)

(Effective Date)

1. This Ministerial Ordinance shall be effective on January 1, 2013 (hereinafter referred to as the "Enforcement Date"). It will be enforced from the following.  
(Transitional Measures)
2. With regard to the carriage or storage of dangerous goods currently carried by or stored on board a ship at the time of the enforcement of this Ministerial Ordinance, the Dangerous Goods Shipping and Storage Regulations (hereinafter referred to as the "New Dangerous Regulations") as amended by this Ministerial Ordinance shall be subject to the

provisions until such carriage or storage is completed. Notwithstanding the provisions of the above, the previous example shall apply.

3. Vessels built or commenced construction prior to the effective date (hereinafter referred to as "existing vessels"). Fire prevention and fire detection and extinguishing measures (hereinafter referred to as "fire prevention measures, etc."). Notwithstanding the provisions of Appendix 2 of the New Hazard Regulations, the previous example may still be used until the time of the first periodic inspection to be conducted after the effective date.
4. Notwithstanding the provisions of Appendix 2 of the New Hazard Regulations and the preceding paragraph, fire prevention and other measures for ships built or commenced to be built before July 1, 2010, may still be subject to the previous examples.
5. Notwithstanding the provisions of Form No. 13 of the New Hazard Regulations, the labeling of portable tanks manufactured before the effective date shall continue to be in accordance with the previous example.
6. If there is a description of the flash point of "601 degrees Celsius or less" in the column of the ship inspection certificate or other navigational conditions currently in the possession of the existing vessel at the time of the enforcement of this Ministerial Ordinance, the description shall be deemed to have been replaced with "60 degrees Celsius or less" until the date on which the validity period of the ship inspection certificate expires.

Supplementary Provisions (December 28, 2013 Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 110)  
(Effective Date)

Article 1 This Ministerial Ordinance shall be effective on January 1, 2014 (hereinafter referred to as the "Enforcement Date"). It will be enforced from the following.

Supplementary Provisions (Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 75 of September 14, 2014)

This Ministerial Ordinance shall come into effect from the date of enforcement of the Act on the Establishment of the Nuclear Regulation Authority (September 19, 2014).

Supplementary Provisions (Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 90 of December 27, 2014)  
(Effective Date)

1. This Ministerial Ordinance shall come into effect on January 1, 2015.  
(Transitional Measures)
2. With regard to the carriage or storage of dangerous goods currently carried by a ship or stored by a vessel at the time of the enforcement of this Ministerial Ordinance, the Dangerous Goods Shipping and Storage Regulations (hereinafter referred to as the "New Dangerous Regulations")

as amended by this Ministerial Ordinance shall apply until such transportation or storage is completed. Notwithstanding the provisions of the above, the previous example shall apply.

3. Notwithstanding the provisions of Form No. 13 of the New Regulations, the labeling of large containers manufactured before December 31, 2015 shall still be in accordance with the previous example.

Supplementary Provisions (December 28, 2014 Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 91)

(Effective Date)

Article 1 This Ministerial Ordinance shall come into effect on January 1, 2015.

Supplementary Provisions (Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 12 of February 26, 2016)

This Ministerial Ordinance shall come into effect from the date of enforcement of the Act on the Dissolution of the Nuclear Safety Agency (March 1, 2016).

Supplementary Provisions (July 1, 2016 Ordinance No. 62 of the Ministry of Land, Infrastructure, Transport and Tourism)

(Effective Date)

Article 1 This Ministerial Ordinance shall be effective on July 1, 2016 (hereinafter referred to as the "Enforcement Date"). It will be enforced from the following.

(Transitional Measures Accompanying the Partial Revision of the Regulations for the Carriage and Storage of Dangerous Goods)

Article 3 Notwithstanding the provisions of Articles 164 and 271 of the Regulations on the Carriage and Storage of Dangerous Goods as amended pursuant to the provisions of Article 2, the previous precedent may still be applied to existing vessels until the date on which the first periodic or interim inspection to be conducted on or after July 1, 2013 begins.

Supplementary Provisions (Ordinance No. 78 of the Ministry of Land, Infrastructure, Transport and Tourism on October 1, 2016)

(Effective Date)

Article 1 This Ministerial Ordinance shall be effective on January 1, 2017 (hereinafter referred to as the "Enforcement Date"). It will be enforced from the following.

(Transitional Measures)

Article 2

2. Notwithstanding the provisions of the Dangerous Goods Shipping and Storage Regulations as amended by this Ministerial Ordinance, the previous example shall continue to apply to dangerous goods currently loaded on board a vessel for carriage on the effective date until such carriage is terminated.

7. The application of penalties for acts committed before the effective date shall continue to be in accordance with the previous precedents.

Supplementary Provisions (Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 93 of December 12, 2016)

(Effective Date)

Article 1 This Ministerial Ordinance shall come into effect on January 1, 2017.

(Transitional Measures Accompanying the Partial Revision of the Regulations for the Carriage and Storage of Dangerous Goods)

Article 2 Notwithstanding the provisions of the Dangerous Goods Shipping and Storage Regulations as amended by this Ministerial Ordinance, the carriage or storage of dangerous goods currently transported by ship or stored on board a ship at the time of the enforcement of this Ministerial Ordinance shall continue to be subject to the previous precedent until such transportation or storage is completed.

(Transitional Measures Concerning Penalties)

Article 4 The application of penalties to acts committed before the enforcement of this Ministerial Ordinance and to acts committed after the enforcement of this Ministerial Ordinance in cases where the provisions of Article 2 of the Supplementary Provisions and Paragraph 1 of the preceding Article still apply to the previous examples, shall continue to apply.

Supplementary Provisions (December 22, 2017 Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 85)

(Effective Date)

Article 1 This Ministerial Ordinance shall be effective on January 1, 2018 (hereinafter referred to as the "Enforcement Date"). It will be enforced from the following.

(Transitional Measures Accompanying the Partial Revision of the Regulations for the Carriage and Storage of Dangerous Goods)

Article 3 With respect to existing vessels, the Dangerous Goods Shipping and Storage Regulations (referred to in this paragraph as the "New Regulations") after the amendment pursuant to the provisions of Article 2. Article 272 and Article 328, Paragraph 3, Items 2 and 3 (including cases where these provisions apply mutatis mutandis in Article 324, Paragraph 2 of the New Regulations); Notwithstanding the provisions of the above, the previous example may still be followed.

2. Notwithstanding the provisions of the preceding paragraph, with respect to existing vessels that undergo major changes or modifications after the effective date, the provisions of the preceding paragraph shall be subject to the instructions of the Director General of the Regional Transport Bureau having jurisdiction over the location of the ship.

Supplementary Provisions (Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 19 of March 23, 2018)

(Effective Date)

1. This Ministerial Ordinance shall be effective on July 1, 2018 (hereinafter referred to as the "Enforcement Date"). It will be enforced from the following.  
(Transitional Measures)
2. Vessels built or commenced construction prior to the effective date (hereinafter referred to as "existing vessels"). Notwithstanding the provisions of the Regulations for the Carriage and Storage of Dangerous Goods Vessels after the amendment by this Ministerial Ordinance, the previous example may still be followed.
3. Notwithstanding the provisions of the preceding paragraph, with respect to existing vessels that undergo major changes or modifications after the effective date, the instructions of the Director General of the Regional Transport Bureau having jurisdiction over the location of the vessel shall be subject to such changes or modifications.

Supplementary Provisions (April 26, 2018 Ministry of Land,  
Infrastructure, Transport and Tourism Ordinance No. 45)  
(Effective Date)

1. This Ministerial Ordinance shall come into effect from the date of promulgation. provided, however, that the amended provisions of Article 395 of the Dangerous Goods Shipping and Storage Regulations in Article 1 and the amended provisions of the Table of Contents of the Special Cargo Shipping Regulations in Article 2, and the amended provisions adding Article 1 after Article 1-2-2 of the same Order (including the case where the provisions of the same paragraph are read mutatis mutandis in Article 31-2 of the Revised Regulations on the Carriage and Storage of Dangerous Goods). Limited to the part pertaining to the following. The amended provisions of Article 36, Paragraph 2 of the Decree shall be struck out and Article 2 shall come into effect on July 1, 2018.  
(Transitional Measures)
2. In the case of transporting containers loaded before the date of enforcement of the provisions stipulated in the proviso of the preceding paragraph, notwithstanding the provisions of the Regulations for the Carriage and Storage of Dangerous Goods as amended by this Ministerial Ordinance, the previous example may still be used until such transportation is completed.

Supplementary Provisions (December 26, 2018 Ministry of Land,  
Infrastructure, Transport and Tourism Ordinance No. 84)  
(Effective Date)

Article 1 This Ministerial Ordinance shall be effective on January 1, 2019 (hereinafter referred to as the "Enforcement Date"). It will be enforced from the following.  
(Transitional Measures)

Article 2 Vessels built or commenced construction before the effective date (hereinafter referred to as "existing vessels") Article 115-23-3(3) and

Article 146-23(2) of the Ship Equipment Regulations as amended pursuant to the provisions of Article 1, Article 42-2, Article 66, Article 102-7-2, Article 102-16(2) and Article 109(4) of the Ship Parcel Regulations as amended pursuant to the provisions of Article 2, Article 246(5) and Article 313(5) of the Dangerous Goods Shipping and Storage Regulations as amended pursuant to the provisions of Article 4; Notwithstanding the provisions of Article 6, Paragraph 3, Article 8, Paragraph 3, and Article 17, Item 5 of the Ministerial Ordinance on Technical Standards for Ship Equipment, etc. based on the provisions of the Act on the Prevention of Marine Pollution, etc. and Maritime Disasters after the amendment pursuant to the provisions of Article 9, and Article 69-2 of the Ship Engine Regulations after the amendment pursuant to the provisions of Article 11, the previous precedents may still apply.

2. With respect to existing vessels, the Ship Equipment Regulations as amended by this Ministerial Ordinance (excluding the provisions of Article 115-7, Paragraph 2, Article 115-23-3, and Article 146-23) shall apply. Ship Stability Regulations, Dangerous Goods Shipping and Storage Regulations (excluding the provisions of Article 246(5) and Article 313(5)). ), Enforcement Regulations of the Ship Safety Act, Ship Lifesaving Equipment Regulations, Ship Fire Fighting Equipment Regulations, and Ship Engine Regulations (excluding the provisions of Article 69-2). Notwithstanding the provisions of this paragraph, the first periodic inspection, class 1 interim inspection, or class 2 interim inspection to be conducted on or after January 1, 2003 (limited to those that make preparations as stipulated in Article 25, Paragraph 3 of the Ordinance for Enforcement of the Ship Safety Act). Until the time of, it can still be used according to the previous example.
3. Notwithstanding the provisions of the preceding two paragraphs, with respect to existing vessels that undergo major changes or modifications after the effective date, the changes or modifications shall be in accordance with the instructions of the competent maritime authorities.

Supplementary Provisions (December 27, 2018 Ministry of Land,  
Infrastructure, Transport and Tourism Ordinance No. 85)

(Effective Date)

Article 1 This Ministerial Ordinance shall come into effect on January 1, 2019.

(Transitional Measures)

Article 2

2. At the time of enforcement of this Ministerial Ordinance, dangerous goods (dangerous goods as defined in Article 13, Paragraph 3 of the Dangerous Goods Ship Transportation and Storage Regulations) Notwithstanding the provisions of the Regulations for the Carriage and Storage of Dangerous Goods as amended pursuant to the provisions of

Article 2, the previous precedent shall continue to apply until such carriage is completed.

Supplementary Provisions (December 28, 2018 Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 88)

(Effective Date)

Article 1 This Ministerial Ordinance shall be effective on January 1, 2019 (hereinafter referred to as the "Enforcement Date"). It will be enforced from the following.

(Transitional Measures)

Article 2 For ships for which a construction contract was concluded before the enforcement date (in the case of a ship without a construction contract, construction started before July 1, Heisei 29) and delivered to the ship owner before January 1, Reiwa 3, the Ship Engine Regulations after the amendment pursuant to the provisions of Article 1, the Dangerous Goods Ship Transportation and Storage Regulations after the amendment pursuant to the provisions of Article 2, Notwithstanding the provisions of the Ship Fire Prevention Equipment Regulations as amended pursuant to the provisions of Article 3 and the Ship Fire Protection Structure Regulations as amended pursuant to the provisions of Article 5, the previous examples shall apply.

2. Notwithstanding the provisions of the preceding paragraph, the vessel referred to in the preceding paragraph that undergoes a major change or modification after the effective date shall be subject to the instructions of the competent maritime authority.

Supplementary Provisions (Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 64 of October 25, 2019)

This Ministerial Ordinance shall come into effect on January 31, 2010.

Supplementary Provisions (December 26, 1930 Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 90)

(Effective Date)

1. This Ministerial Ordinance shall come into effect from the date of enforcement of the provisions set forth in Article 1 of the Supplementary Provisions of the Act on the Partial Revision of the Act on the Regulation of Nuclear Source Materials, Nuclear Fuel Materials and Nuclear Reactors for the Enhancement of Safety Measures in the Use of Nuclear Energy.

Supplementary Provisions (Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 20 of June 28, the first year of Reiwa)

This Ministerial Ordinance shall come into effect from the date of enforcement of the Act to Partially Amend the Unfair Competition Prevention Act, etc. (July 1, the first year of Reiwa).

Supplementary Provisions (Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 32 of August 30, the first year of Reiwa)

This ministerial ordinance shall come into effect on September 1, the first year of Reiwa.

Supplementary Provisions (Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 47 of December 16, the first year of Reiwa)  
(Effective Date)

Article 1 This Ministerial Ordinance shall come into effect on December 16, the first year of Reiwa, on the date of enforcement of the Act on the Partial Revision of the Act on the Use of Information and Communication Technology in Administrative Procedures, etc. in order to improve the convenience of persons involved in administrative procedures, etc. through the use of information and communication technology, and to simplify and improve the efficiency of administrative operations.

Supplementary Provisions (Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 98 of December 23, 2nd year of Reiwa)  
(Effective Date)

1. This Ministerial Ordinance shall come into effect on January 1, the third year of Reiwa.  
(Transitional Measures)

2. Forms in the form before the amendment by this Ministerial Ordinance that are in force at the time of enforcement of this Ministerial Ordinance may be used for the time being.

Supplementary Provisions (Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 103 of December 28, 2nd year of Reiwa)  
(Effective Date)

1. This Ministerial Ordinance shall come into effect on January 1, the third year of Reiwa.  
(Transitional Measures)

2. Notwithstanding the provisions of the Regulations for the Carriage and Storage of Dangerous Goods by Ship as amended by this Ministerial Ordinance, the carriage of dangerous goods that is currently being transported by a ship at the time of the enforcement of this Ministerial Ordinance shall continue to be subject to the previous precedent until such carriage is terminated.

3. The application of penalties to acts committed before the enforcement of this Ministerial Ordinance and acts committed after the enforcement of this Ministerial Ordinance in cases where the provisions of the preceding paragraph still apply to the previous precedents shall continue to apply.

Supplementary Provisions (Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 42 of June 23, 3rd year of Reiwa)

This Ministerial Ordinance shall come into effect on July 1, the third year of Reiwa.

Supplementary Provisions (Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 82 of October 2, Reiwa 5) Extract  
(Effective Date)

1. This Ministerial Ordinance shall come into effect on December 1, the fifth year of Reiwa.

Supplementary Provisions (Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 98 of December 28, Reiwa 5)

This Ministerial Ordinance shall come into effect from the date of promulgation.

Appendix 1 (related to Article 37)

Types of cargo zones	(1) General cargo area	(2) Exposed deck cargo area	(3) Container cargo area	(4) Enclosed roll-on/roll-off cargo area, etc.	(5) Open roll-on and rolloff areas	(6) Barge loading g cargo area
Measures for Fire Prevention, etc.						
(1) Remote control of fire extinguishing pumps, etc. <sup>(d)</sup>	○	○	○	○	○	○
(2) Enhancement of the capacity of fire extinguishers	○	○	○	○	○	

shing pumps <sup>(d)</sup>						
(3) Installation of cooling equipment, etc. <sup>(d)</sup>	○		○	○	○	○
(4) Elimination of ignition sources	○		○	○	○ <sup>(e)</sup>	○
(5) Installation of fire detection equipment <sup>(d)</sup>	○		○	○		○
(6) Installation of mechanical ventilation system	○		○ <sup>(b)</sup>	○		○
(7) Installation of explosion-proof mechanical ventilation	○		○ <sup>(b)</sup>	○		○

devices, etc.						
(8) Prevention of bilge inflow into the engine room	○		○	○		
(9) Protection of personnel <sup>(d)</sup>	○	○	○	○	○	
(10) Installation of portable fire extinguishers <sup>(d)</sup>	○	○			○	
(11) Heat protection at the boundary with the specific engine area	○	○	○	○	○	
(12) Installation of a fixed pressurized water spray				○ <sup>(b)</sup>	○	

device (d)						
(13) Installation of fixed fire- extinguishing gas fire extinguishing equipment t <sup>(d)</sup>	○		○	○ <sup>(e)</sup>		○
(14) Sealing of cargo areas				○ <sup>(f)</sup>		

remarks

1. In the table, the circle indicates that appropriate fire prevention and other measures must be taken when loading dangerous goods on a vessel with an applicable cargo area.  
provided, however, that the categories or items of dangerous goods for which such measures must be taken shall be limited to those marked with a circle in the column of the measure in Appendix 2.
2. The cargo areas referred to in (1) to (6) in the table shall be as follows:
  - (1) General Cargo Area  
Cargo areas other than those listed in (2) to (6)
  - (2) Exposed deck cargo area  
Cargo area on exposed deck
  - (3) Containerized cargo area  
Cargo area with facilities for loading only containers
  - (4) Enclosed roll-on/roll-off cargo area, etc.  
The roll-on roll-off cargo area (hereinafter referred to as the "roll-on roll-off cargo area") in Article 2, Item 17-2 of the Ship Fire Protection Structure Regulations. and the enclosed cargo area and the vehicle area referred to in Item 18 of the same Article (hereinafter referred to as the "vehicle area"). and enclosed cargo area
  - (5) Open roll-on and roll-off cargo areas  
Roll-on/roll-off cargo area and open cargo area
  - (6) Barge loading cargo area

Cargo area loading barge

3. The fire prevention measures (1) to (14) in the table shall be as stipulated in the notification.
4. In the case where the shoulder letters "(a)" to "(f)" are added in the table, it shall be as follows.
  - (b) Containers containing flammable and oxidizing substances among the applicable hazardous materials (limited to non-open containers). Vessels having a cargo area that carries only the above are not required to take appropriate fire prevention measures.
  - (b) Vessels with enclosed roll-on and roll-off cargo areas that can be sealed are not required to take appropriate fire prevention measures.
  - (c) Vessels with enclosed roll-on and roll-off cargo areas that cannot be sealed are not required to take appropriate fire prevention measures.
  - (d) Vessels not engaged in international voyages with a gross tonnage of less than 500 tons (excluding passenger ships). Navigation areas in coastal areas or flat water areas (limited to passenger ships). and vessels with a gross tonnage of 500 tons or more (excluding passenger vessels) in coastal areas or flat water areas. It is not necessary to take applicable fire prevention measures.
  - (e) Vessels without a vehicle area are not required to take appropriate fire prevention measures.
  - (f) If the cargo area falls under any of the following, it is not necessary to take appropriate fire prevention measures.
    - (1) the cargo area is not adjacent to the exposed deck cargo area or the open roll-on/roll-off cargo area;
    - (2) When the cargo area is adjacent to the exposed deck cargo area, and fire prevention and other measures taken in the exposed deck cargo area are also taken in the exposed deck cargo area according to the classification and items of dangerous goods loaded in the exposed deck cargo area.
    - (3) When the cargo area is adjacent to an open roll-on-roll-off cargo area, and fire prevention and other measures taken in the open roll-on-roll-off cargo area are also taken in the cargo area according to the classification and items of dangerous goods to be loaded in the open roll-on-roll-off cargo area.

Appendix 2 (related to Article 37)

		E	High- press ure gas	F	Flammabl e materi als	Ox i d i z i n	Poisons	Corrosi ve subst ances	
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Classification or item of dangerous goods	Flammable materials	Spontaneous-combustible substances	Water reactionFlammable materials	Oxidizing substances	Hazardous Substances
Measures for Fire Prevention, etc.					
(1) Remote control of fire extinguishing pumps, etc. <sup>(b)</sup>	○	○		○	○
(2) Enhancement of the capacity of fire extinguishing pumps <sup>(b)</sup>	○	○		○	○
(3) Elimination of ignition sources	○	○ <sup>(b)</sup>	○	○ <sup>(b)</sup>	○ <sup>(b)</sup>
(4) Install		○ <sup>(b)</sup>	○		

ation of mechani cal ventila tion equipme nt					
(5) Install ation of explosi on- proof mechani cal ventila tion devices , etc.	<input type="radio"/> <sup>(c)</sup>	<input type="radio"/> <sup>(b)</sup>	<input type="radio"/>	<input type="radio"/> <sup>(b) (c)</sup>	<input type="radio"/> <sup>(b) (c)</sup>
(6) Install ation of natural ventila tion equipme nt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
(7) Protect ion of personn el <sup>(b)</sup>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
(8) Heat protect ion at the boundar y with	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> <sup>(b)</sup>	<input type="radio"/>

the specific engine area					
(9) Installation of fixed fire-extinguishing gas fire extinguishing equipment <sup>(b)</sup>	○	○	○	○	○

remarks

1. The fire prevention measures described in (1) to (9) in the table shall be as stipulated in the notification.
2. In the table, ○ indicates that fire prevention and other measures applicable to vessels carrying the relevant dangerous goods must be taken.
3. In the case where the shoulder letters "(a)" to "(c)" are added in the table, it shall be as follows.
  - (b) Vessels not engaged in international voyages with a gross tonnage of less than 500 tons and vessels with a gross tonnage of 500 tons or more in coastal areas or flat water areas are not required to take appropriate fire prevention measures.
  - (b) It is not necessary to take applicable fire prevention and other measures for dangerous goods other than those specified in the notification.
  - (c) When installing a fire wire fence, it is not necessary to take appropriate fire prevention measures.

Appendix 4 (related to Article 45)

Types of Cargo	(1) Class A cargo	(2) Class B cargo	(3) Class B cargo
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Disaster Prevention and Other Measures			
(1) Strengthening the hull structure	○		
(2) Arrangement of cargo area	○	○	
(3) Installation of drainage facilities in the cargo area	○		
(4) Provision of life-saving equipment	○		
(5) Installation of firefighting equipment	○	○	
(6) Provision of navigation equipment	○		
(7) Installation of temperature control devices in the cargo area	○	○	
(8) Installation of power supply equipment	○	○	
(9) Stability in the event of damage	○		
(10) Installation of lashing device	○	○	
(11) Preparation of a Disaster Response Emergency Measures Handbook	○	○	○
(12) Installation of fixed radiation measuring equipment	○		
(13) Furnishing of materials or equipment necessary for persons on board to take measures in the event of a disaster	○	○	○

remarks

1. In the table, ○ indicates that disaster prevention and other measures applicable to the vessel carrying the relevant cargo must be taken.
2. The cargoes (1) to (3) in the table shall be as follows:
  - (1) Class A cargo  
Irradiated nuclear fuel, plutonium (including compounds of plutonium) or high-level waste (hereinafter referred to as "irradiated nuclear fuel, etc."). The total amount of radioactivity such as irradiated nuclear fuel loaded on a vessel is 4 petabecquerels or more.
  - (2) Class B cargo  
Irradiated nuclear fuel, etc., other than Class A cargo
  - (3) Class B cargo  
Other
3. The disaster prevention measures (1) to (13) in the table shall be as specified in the notification.
4. The Emergency Measures Guide for Disaster Preparedness referred to in (11) of the Table shall be prepared in the language used by persons on board the vessel when they are engaged in normal duties.

Appendix 5 (related to Article 114)

	Fissile transports (limited to BM-type transports or BU-type transports)	Fissile transports (limited to L-type transports or A-type transports)	Radioactive transports other than fissile transports
Confirmation pursuant to the provisions of Article 87, Paragraph 1 (excluding those listed in the next column)	888,900 yen per case	234,200 yen per case	302,300 yen per case
Confirmation pursuant to the provisions of Article	252,200 yen per case	50,000 yen per case	183,300 yen per case

87, Paragraph 1 (limited to the use of containers approved pursuant to the provisions of Article 88, Paragraph 1) )			
Approval pursuant to Article 88, Paragraph 1	586,600 yen per case	176,500 yen per case	68,600 yen per case
Approval pursuant to the provisions of Article 99, Paragraph 1	204,800 yen per case		

## Appendix 5-2 (related to Article 114)

	Fissile transports (limited to BM-type transports or BU-type transports) )	Fissile transports (limited to L-type transports or A-type transports) )	Radioactive transports other than fissile transports
Confirmation pursuant to the provisions of Article 87, Paragraph 1 (excluding	888,700 yen per case	234,000 yen per case	302,100 yen per case

those listed in the next column) )			
Confirmation pursuant to the provisions of Article 87, Paragraph 1 (limited to the use of containers approved pursuant to the provisions of Article 88, Paragraph 1) )	252,000 yen per case	49,800 yen per case	183,100 yen per case
Approval pursuant to Article 88, Paragraph 1	586,400 yen per case	176,200 yen per case	68,400 yen per case
Approval pursuant to the provisions of Article 99, Paragraph 1	204,600 yen per case		

## Appendix 6 (related to Article 114)

Small Containers	bag	1 yen per piece
	Fiber board box	3 yen per

				piece
Other			Items that store liquids without using interior decoration	16 yen per piece
			Items that use interior decoration or store solid materials	14 yen per piece
Large containers				40 yen per piece
IBC Container	Metal containers, hard plastic containers and composite containers with plastic contents	What stores solids	Items to be inspected due to the expiration of the validity period of the display	2,250 yen per piece
			Other	6,900 yen per piece
	What stores	Items to be inspected	3,050 yen	

	liquids	due to the expiration of the validity period of the display	per piece
		Other	10,000 yen per piece
	Flexible container		50 yen per piece
	Fiber board containers and wooden containers		40 yen per piece
High-pressure vessel	Items to be inspected due to the expiration of the validity period of the display		3,800 yen per piece
	Other		11,200 yen per piece
Portable Tank	Items to be inspected due to the expiration of the validity period of the display		30,600 yen per piece
	Other		120,200 yen

		per piec e
Flexible Bulk Container		270 yen per piec e

Remarks In the case of a high-pressure container in which multiple containers are connected, the amount obtained by multiplying by the number of connected containers shall be the amount.

Appendix 6-2 (related to Article 114)

Small Containers	bag		1 yen per piec e
	Fiber board box		3 yen per piec e
	Other	Items that store liquids without using interior decoratio n	16 yen per piec e
		Items that use interior decoratio n or store solid materials	14 yen per piec e
Large containers			40 yen per

				piece
IBC Container	Metal containers, hard plastic containers and composite containers with plastic contents	What stores solids	Items to be inspected due to the expiration of the validity period of the display	2,250 yen per piece
			Other	6,900 yen per piece
		What stores liquids	Items to be inspected due to the expiration of the validity period of the display	3,050 yen per piece
			Other	10,000 yen per piece
	Flexible container			50 yen per piece
	Fiber board containers and wooden containers			40 yen per

		piece
High-pressure vessel	Items to be inspected due to the expiration of the validity period of the display	3,800 yen per piece
	Other	11,200 yen per piece
Portable Tank	Items to be inspected due to the expiration of the validity period of the display	30,400 yen per piece
	Other	120,000 yen per piece
Flexible Bulk Container		270 yen per piece

Remarks In the case of a high-pressure container in which multiple containers are connected, the amount obtained by multiplying by the number of connected containers shall be the amount.

Form No. 1 (related to Article 38)

[Abbreviation]

Form 1-2 (Article 38-2)

[Abbreviation]

Form No. 2 (related to Article 40)

[Abbreviation]

Form No. 3 (related to Article 41)

[Abbreviation]

Form No. 4 (related to Article 42)

[Abbreviation]

Form No. 5 (related to Articles 44 and 114)

[Abbreviation]

Form No. 6 (related to Article 106)

[Abbreviation]

Form No. 7 (related to Article 106)

[Abbreviation]

Form No. 8 (related to Article 111)

[Abbreviation]

Form No. 9 (related to Article 111)

[Abbreviation]

Form No. 10 (related to Article 112)

[Abbreviation]

Form No. 11 (related to Article 112)

[Abbreviation]

Form No. 12 (related to Article 113)

[Abbreviation]

Form No. 13 (related to Article 113)

[Abbreviation]

Form No. 14 (related to Article 113)

[Abbreviation]

Form No. 15 (related to Article 115)

[Abbreviation]