

---

4 ALBERT EMBANKMENT  
LONDON SE1 7SR  
Telephone: +44 (0)20 7735 7611 Fax: +44 (0)20 7587 3210

MSC.1/Circ.1442  
1 June 2012

**INSPECTION PROGRAMMES FOR CARGO TRANSPORT UNITS  
CARRYING DANGEROUS GOODS**

1 The Maritime Safety Committee, at its ninetieth session (16 to 25 May 2012), noted that Member Government reports, submitted in accordance with the format set out in annex 2 to this circular, on inspections of cargo transport units (CTUs), as they are defined in chapter 1.2 of the IMDG Code, carrying dangerous goods for international transport by sea, could benefit by having guidance on how to conduct the inspections being reported. Inspection procedures and protocols may vary, depending on the specific type of CTU, on how it is presented for inspection (e.g. whether mounted on chassis or grounded), and on the need for additional precautions dependent upon the specific nature of the dangerous goods (e.g. radioactive, explosive, inhalation hazard).

2 The inspection guidance found in annex 1, while not in all cases definitive, is intended to provide Member Governments with adequate inspection guidelines and procedures to prompt substantial compliance with IMO standards and is applicable to all types of CTUs. Related circulars may be developed or updated to address peculiarities of specific types of CTUs and to provide greater detail on certain inspection items such as structural integrity (see resolution MSC.310(88)).

3 Noting that in those countries where regular inspection programmes have been implemented, a considerable improvement has been experienced in the general compliance with those standards, the Committee decided to offer inspection guidance to Member Governments to facilitate improvement to and implementation of inspection programmes. To avoid the diverting of dangerous goods to ports where inspections are not carried out, a regional approach should be taken.

4 To help identify areas of improvement to pertinent IMO standards, Member Governments are requested to continue providing reports on inspections of cargo transport units. Assuming inspection procedures among Member Governments are comparable to the guidelines contained in annex 1, these reports provide an ability to justify and effect safety improvements without the need for an actual safety incident. To aid the Organization in evaluating the reports, Governments are invited to submit their reports in a structured manner, using the format given in annex 2, with at least the following information:

- .1 number of CTUs examined;
- .2 number of CTUs found with deficiencies; and
- .3 number of deficiencies relating to each inspection item as noted.

5 This circular supersedes MSC.1/Circ.1202.

\*\*\*



## ANNEX 1

### GUIDELINES FOR THE IMPLEMENTATION OF THE INSPECTION OF CARGO TRANSPORT UNITS

#### 1 General

1.1 The objective of these Guidelines is to assist in the implementation of a uniform and safe inspection programme for the inspection of cargo transport units (CTUs) carrying goods for international transport by sea, and to provide guidance relating to such inspections in accordance with applicable IMO documents, such as the IMDG Code, CSC and related recommendations.

1.2 Any inspection should be carried out in accordance with applicable IMO standards, such as the IMDG Code and the CSC. The following items should, at a minimum, be covered by the inspection programme and be checked for compliance with applicable standards; these items are succinctly captured in a flowchart found in the appendix to these Guidelines and in the chronological sequence of an actual inspection:

- .1 documentation;
- .2 International Convention for Safe Containers (CSC) Safety Approval Plate and plating in accordance the IMDG Code for portable tanks;
- .3 placarding and marking of CTUs;
- .4 marking and labelling of packages;
- .5 packaging (inappropriate or damaged);
- .6 portable tank or road tank vehicles not covered by CSC (inappropriate or damaged);
- .7 stowage/securing inside the freight containers, vehicles and other CTUs;
- .8 segregation of cargo;
- .9 Approved Continuous Examination Program (ACEP) or Periodic Examination Scheme (PES) label;
- .10 serious structural deficiencies (refer to resolution MSC.310(88)); and
- .11 tie-down attachments of road tank vehicles.

#### 1.3 Definitions

- .1 *Door End Inspection* – A visual inspection of the contents of a CTU without breaking the plane of the door end.
- .2 *Safety Strap* – A strap attached to or secured around the locking bars of a CTU to minimize the free movement of the right side door when it is first opened.

- .3 *Tailgate Inspection* – An internal inspection of a CTU, that is limited to that interior volume of a CTU beginning at the door sill and ending at an imaginary plane established at the lesser of either the first meter of the container itself or the first tier of dunnage.

## **2 Targeting methodology and undeclared dangerous goods**

2.1 Commensurate with available resources, Member Governments are encouraged to inspect a representative number of CTUs carrying dangerous goods by sea. CTUs should be targeted for inspection with consideration given to risk-based principles. For example, Member Governments should focus their inspection resources on those shipments that have historically presented the greatest safety risk. Targeting criteria could also assist Member Governments in addressing dangerous goods being shipped in an undeclared manner.

2.2 The presence of undeclared dangerous goods should not be underestimated. Undeclared dangerous goods can occur when hazardous materials are placed within a CTU with no markings to indicate the presence of dangerous goods, and when required documents fail to declare the presence of dangerous goods or are missing altogether.

- .1 A targeted selection method should be used to identify general cargo CTUs with a higher probability of carrying undeclared hazardous materials. The inspection of general cargo transport units should complement those performed on CTUs with declared dangerous goods; and
- .2 Methods for tracking parties responsible for repeatedly violate dangerous goods shipping standards are encouraged.

2.3 Actions undertaken upon discovery of a CTU with a deficiency may include placing the cargo on hold, or putting the CTU out of service, and/or providing appropriate penalty actions against those responsible under the IMDG Code, CSC and/or applicable national legislation, as appropriate.

## **3 General safety considerations**

3.1 Given the safety and health risks CTUs present, all inspections should be conducted with caution.

- .1 CTU inspections should be carried out in safe areas. If it is necessary to carry out inspections in port areas, appropriate precautions should be taken to prevent persons being struck by vehicles.
- .2 Precautions must be taken to minimize risks associated with entry and potential exposure during inspections.
- .3 CTU inspections should not be carried out by individual inspectors, but by a team of at least two inspectors or in conjunction with a representative from the facility and/or carrier with custody of CTU.
- .4 While inspecting a CTU, inspectors shall be alert to any attempt by facility personnel to inadvertently move that CTU.

- .5 Inspectors should minimize the likelihood of slips, trips or falls especially while inspecting CTUs loaded on chassis or when climbing on to and walking along the tops of CTUs. Inspectors should follow applicable occupational safety regulations in order to view the CTU components (corner fittings, top side rails, roof, etc.) otherwise not readily visible from the ground. Inspectors should not climb any CTU if it is stacked on top of another CTU.
- .6 Inspectors should observe caution when opening a CTU's doors as cargoes may have shifted and may be resting against the doors.
- .7 Inspectors should not open a CSC containers doors if that container is part of a stack. CSC Container doors are a structural part of a container and, if opened while stacked, may compromise the structural integrity of the container and stack.
- .8 Given possible interactions with hazardous materials, inspectors should not smoke while conducting inspections.
- .9 Inspectors should be aware of the potential hazards of the atmosphere inside CTUs. These may result from residues from previous cargo, spillage from damaged packages inside the CTUs, hazardous cargoes, decomposition products, reduced oxygen content, fumigants and fumigant residues.
- .10 Exposure through inadvertent ingestion, absorption, injection or inhalation of hazardous materials from a CTU may be harmful or fatal.
- .11 Exposure to radioactive materials may pose potential health risks. Inspectors should be aware of the commodities reportedly contained within the CTU and should be in possession of appropriate radiation monitoring equipment.

3.2 Inspectors should be familiar with procedures of response to hazardous material releases or exposures established by local authorities.

- .1 Inspectors should immediately egress from the exposure area and muster in a safe location upwind. This action is referred to as an emergency egress. The following, among others, are indications of possible exposure that should require immediate emergency egress:
  - .1 leaks, odours, or sounds (such as when compressed gas is released);
  - .2 atmospheric monitor or meter alarms;
  - .3 feelings of dizziness, light-headedness or shortness of breath; and
  - .4 unexpected chemical smells or dermal sensations such as burning.
- .2 Actions to be taken in an emergency egress include immediate notification to the facility so that response plans can be activated.
- .3 Inspectors should not re-enter any CTU until it has been determined that it is safe to do so.

3.3 Provisions should be in place for swift emergency medical treatment:

- .1 Chemical specific emergency response information should be available during inspections and consulted for appropriate initial decontamination in the event of exposure to a hazardous material. The inspector should be aware of appropriate emergency medical services such as hospitals, fire departments, first aid stations, and chemical decontamination stations.

3.4 Inspection controls should be established for specific hazards.

- .1 Shipments of radioactive materials, identified in section 2.7.2 of the IMDG Code, should be inspected taking into account the unique nature of the hazard. Radioactive materials shipped properly pose little risk of exposure and are required to be prepared in compliance with the same standards as all other hazardous material shipments. The inspection of radioactive materials should be done with extreme caution.
- .2 CTUs, with toxic commodities bearing the labels of 2.3 or 6.1 or with "FUMIGANT" warning signs as per paragraph 5.5.2.3.2 of the IMDG Code, may be opened but should only be inspected visually without having the inspector cross the plane of the doorway if it has not been adequately ventilated.
- .3 Even if Fumigant warning signs are not posted, inspectors should look for signs or indicators of fumigant having been applied to the CTU.

#### **4 Conduct of inspections**

4.1 CTU inspection preparation, assessment and opening procedures should be established.

- .1 Contact the facility and/or carrier with custody of CTUs to be inspected.
- .2 Establish an inspection team communications plan. Reliable voice communications that take into account Administration and facility safety procedures.
- .3 Identify CTUs for inspection and inform facility and/or carrier. A risk assessment methodology should be used to select CTUs posing the highest threat and consequence for non-compliance with regulations.
- .4 Identify the contents of CTUs selected for inspection by obtaining and reviewing the dangerous goods transportation documents. A bill of lading or other descriptive document should be obtained for CTUs with general cargoes.
- .5 Assemble personal protective equipment and needed inspection equipment:
  - .1 Personnel should wear hard hats, safety glasses, safety shoes, high visibility or reflective vests, and gloves, and properly calibrated hazardous condition sensing devices. As appropriate, inspectors should consider the use of additional personal protective equipment such as chemical protective clothing, air purifying respirators or emergency escape breathing apparatus to prevent inadvertent exposure to hazardous materials within the CTU.

- .2 Personnel should assemble a container inspection kit containing all required tools, references (including regulatory provisions for quick reference), and paperwork.
- .6 A safety brief should be conducted prior to the first inspection. The safety brief should cover the following:
  - .1 operational risk assessment to determine if present and predicted conditions, such as weather and personnel readiness, allow for a safe operation;
  - .2 assignment of roles and responsibilities for all members of the inspection team. At least one member should be assigned safety duties to ensure that proper procedures are followed and to implement protocols in emergency situations;
  - .3 a review of personal protective equipment and its use;
  - .4 a review of safe work practices;
  - .5 a discussion of emergency egress situations, muster location, and other emergency protocols;
  - .6 known hazards that exist at the location where the inspection is to occur; and
  - .7 accidental exposure procedures.
- .7 Stage CTUs for inspection in a manner that will maximize natural ventilation and provide safety from existing traffic patterns, CTU handling operations and concentrations of CTUs scheduled for movement. Staging areas should have adequate lighting, and be away from water runoff drains and electrical outlets. As an additional precaution, when a CTU is on the chassis, place cones or park a vehicle, if available, immediately in front of the CTU to prevent a vehicle from connecting up to the chassis during the inspection.
- .8 Establish a safety watch and review safety procedures before starting the inspection:
  - .1 discuss inspection activity with the safety watch;
  - .2 once the potential hazards of the commodities in the selected CTUs are known, these should be reviewed with the team;
  - .3 assess the staging area and discuss any unique aspects that may pose potential safety hazards. This should include identification of the safe egress routes; and
  - .4 the final step before beginning the inspections should be to conduct a second operational risk assessment to determine if conditions have changed from the previous assessment. When appropriate, reassess safety procedures to reduce risk and, if unsure, seek guidance from a supervisor.

- .9 Conduct an external assessment, to include a complete walk-around, of selected CTUs to ensure safety of inspection personnel. Remain alert for indications of potential internal hazards such as cargo leaks or severe CTU damage. If any leaks are discovered, stop the inspection and initiate established response procedures.
- .10 For closed CTUs, it is highly encouraged to perform atmospheric monitoring before and continuously during the inspection cycle:
  - .1 Inspectors should not enter a CTU if tests indicate that the atmosphere in it is potentially hazardous until it is determined that it is safe to do so.
  - .2 When an inspector enters a CTU atmospheric measurements should be taken above the inspector's head near the top of the container, at head or breathing zone level, at waist level, and near the bottom of the container. After adequate ventilation, the oxygen level at the container door-end should equal ambient levels. Entry into the enclosed space of the container should only occur when the meter readings match those obtained for the ambient atmosphere. Under no circumstances should a tailgate inspection occur when door-end readings differ from normal ambient atmospheric readings or if combustible gas readings indicate a hazardous condition.
- .11 The use of a safety strap is encouraged. Exercise caution when opening closed freight containers. The safety strap will be secured to minimize the free movement of the right side door when it is first opened by crossing the vertical seam between both doors. This can reduce the risk of personal injury from shifted cargo. The safety strap, and other associated components such as ratcheted cargo tie downs, should have a minimum breaking strength of 1,800 kilograms. If the safety strap is made of synthetic material, it should not be elasticized, such as that found in shock cords.
- .12 For CTUs, an assessment of the doorend should be performed to identify shifted cargo. With the safety strap in place, carefully crack open the right door enough to determine if there is any danger from spilled or shifted cargo. A second inspector can do this by looking into the container standing to the left of the left door and at a safe distance:
  - .1 If cargo has shifted and poses a safety threat, notify the facility immediately so that it can be opened safely prior to continuing the inspection.
- .13 Ventilate the CTU. For CTUs other than those that have been fumigated or contain toxic materials, loosen the safety strap and ventilate the CTU by fully opening the doors for natural ventilation:
  - .1 To maximize natural ventilation, open the right and left doors a minimum of 180 degrees so that they are perpendicular to the CTU sides, and ventilate the container for a minimum prescribed time.



- .2 For CTUs that have been fumigated, ensure that at least 24 hours have elapsed since the time of fumigation before opening the doors. Upon opening the doors, the fumigant and residues must be completely ventilated using natural ventilation or mechanical means prior to entry.
  - .3 Inspectors should be aware that residual hazards may remain in ventilated CTUs (see paragraph 3.1.8).
  - .14 Conducting a tailgate inspection. The number of persons entering the CTU to conduct tailgate inspections should be limited to the minimum necessary. Exercise caution when trying to examine cargo forward of the doors; climbing on packages or dunnage is dangerous and should be avoided.
- 4.2 Procedures for internal inspections of a closed CTU should be established.
- .1 Normally, inspectors should not have a need to proceed beyond a door end inspection to complete their duties. An inspector should not enter an enclosed space within a CTU, if he or she does not feel it is safe. However, in situations that call for entry beyond the door end, the following steps should be adhered to:
    - .1 Determine the risk of conducting an internal inspection and assess access and egress routes. Examine the interior of the CTU at the door end and determine if the enclosed space has limited access or egress. If the nature of the cargo or loading procedure does not leave a direct or unobstructed egress path, the inspector should consider the CTU a confined space. If the inspector needs access to a cargo in a potential confined space to verify compliance, then the inspector should take appropriate measures to require de-vanning of the cargo to allow unrestricted access to it or utilize specialized remote viewing equipment. Never climb on packages containing dangerous goods, unless such an inspection is necessary and appropriate safety precautions have been taken.
    - .2 Ensure the CTU has been properly ventilated (see paragraphs 3.1.8 and 4.1.13.3).
    - .3 Continue to evaluate the interior of the space throughout the inspection. If at any time there is an obvious change to the interior environment or the inspector feels unsafe, the inspector should immediately egress from the container and re-evaluate the situation.
    - .4 Continuously monitor the internal atmosphere using sensing devices.
    - .5 Maintain readiness for emergency egress. Each inspector should be ready to immediately exit the CTU when changes in sensing devices indicate the presence of atmospheric hazards or if any of the symptoms identified in paragraph 3.2.1 are detected. In the event that the inspector becomes incapacitated and rescue requires entry to be made into the CTU, emergency response personnel with the proper training and equipment should be used to effect the rescue.

4.3 Establish procedures for resealing a CTU. Procedures should be established for the replacement, recording and information sharing with facilities and carriers of seals that have been removed in the conduct of a container inspection. Such procedures shall conform with applicable national legislation and should take into account MSC-FAL.1/Circ.1 on Securing and Facilitating Global Trade\*.

## 5 Items to check during an inspection

### Checking documentation for compliance and to identify the hazards of a substance, material or article

5.1 The following documentation required by chapter 5.4 of the IMDG Code shall be checked for compliance with the code including being properly signed as required and in order to identify the hazards of the consignment (a substance, material or article):

- .1 dangerous goods transport document;
- .2 container/vehicle packing certificate;
- .3 documentation for tanks used to transport dangerous goods; and
- .4 other information and documentation, if provided.

5.2 The following information, at a minimum, for each dangerous substance, material or article offered for transport should be checked for compliance with section 5.4.1 of the IMDG Code:

- .1 UN number preceded by the letters "UN";
- .2 Proper Shipping Name; Proper Shipping Names that are assigned special provision 274 in column 6 of the dangerous goods list shall be supplemented with their technical or chemical group names as described in paragraph 3.1.2.8 of the IMDG Code;
- .3 primary hazard class or division of the goods;
- .4 subsidiary hazard class or division number(s); and packing group for the substance or article that may be preceded by "PG" if provided;
- .5 other applicable information required by section 5.4.1 of the IMDG Code; and
- .6 proper certification or declaration required by paragraph 5.4.1.6 of the IMDG Code. In case of doubt, information should be checked whether the classification of the goods is consistent with the properties of the material as described in the Material Safety Data Sheet.

---

\* MSC-FAL.1/Circ.1 provides information on the WCO's "SAFE Framework of Standards", which in its "Customs to Customs" pillar encourages the usage by Customs Authorities of advance electronic information as part of a risk-based cargo security strategy. Requirements on the use of high security mechanical seals, as part of a seal integrity programme for containers, form an important element of this pillar. One of these requirements is that if public or private officials remove a seal to inspect the container, they will install an acceptable replacement seal and note the particulars of the action, including the new seal number, in the cargo documentation.

5.3 In addition, the information included in the container/vehicle packing certificate should be checked in order to confirm that the operation of packing or loading dangerous goods was appropriately carried out in accordance with IMDG Code, section 5.4.2.

5.4 If appropriate, in the case of documentation for tanks used to transport dangerous goods, the following should be checked:

- .1 the certificate mentioned in paragraph 4.2.1.8 of the IMDG Code, used to attest the suitability of portable tanks for sea transport;
- .2 the certificate mentioned in paragraph 6.8.3.1.3.2 of the IMDG Code, used to attest the suitability of road tanks used for sea transport of class 3-9 substances;
- .3 the certificate mentioned in paragraph 6.8.3.2.3.2 of the IMDG Code, used to attest the suitability of road tanks for the sea transport of class 2 substances (IMO type 6), non-refrigerated liquefied gases; and
- .4 the certificate mentioned in paragraph 6.8.3.3.3.2 of the IMDG Code, used to attest the suitability of road tanks for the sea transport of refrigerated liquefied gases (IMO type 8).

**Checking Container Safety Convention (CSC) Safety Approval Plate, Tank, Road Tank and MEGC Identification Plate marking, and serious structural deficiencies of cargo transport units**

5.5 The following items should be checked by the inspector:

- .1 Container Safety Convention (CSC) Safety Approval Plate and its validity:
  - .1 Approved Continuous Examination Program (ACEP); or
  - .2 Periodic Examination Scheme (PES) label;
- .2 serious structural deficiencies of frame elements including corner and intermediate fittings (refer to resolution MSC.310(88)) and, for portable tanks, the condition of tank accessories;
- .3 tie-down attachments of road tank vehicles;
- .4 with respect of tanks and MEGCs, the metal plate as described in chapter 6 of the IMDG Code, its validity and periodic inspection and test dates, where appropriate:
  - .1 the metal plate on portable tanks as described in paragraphs 6.7.2.20, 6.7.3.16, and 6.7.4.15;
  - .2 the metal plate on MEGCs as described in paragraph 6.7.5.13;
  - .3 the metal plate on road tanks used for sea transport (IMO type 4) as described in paragraph 6.8.3.1.3.4;
  - .4 the metal plate on road tanks used for sea transport (IMO type 6) as described in paragraph 6.8.3.2.3.4;

- .5 the metal plate on road tanks used for sea transport (IMO type 8) as described in paragraph 6.8.3.3.3.4; and
- .6 the metal plates on tanks may show markings required by other regulations.

### **Confirming the placarding and marking of CTUs**

5.6 After identifying the hazards and classification of the goods, the inspector shall confirm a clear display of appropriate placards and marks on CTUs in compliance with the provision of chapter 5.3 of the Code.

- .1 A CTU containing dangerous goods or residues of dangerous goods should display placards clearly as follows:
  - .1 freight container, trailer or portable tank: one on each side and one on each end of unit;
  - .2 railway wagon: at least on each side;
  - .3 multiple-compartment tank containing more than one dangerous substance or their residue: along each side at the positions of the relevant compartments; and
  - .4 any other CTU: at least on both sides and on the back of the unit.
- .2 The Proper Shipping Name of contents shall be marked on at least both sides of:
  - .1 tank transport units containing dangerous goods;
  - .2 bulk containers containing dangerous goods; or
  - .3 any other CTU containing packaged dangerous goods of a single commodity for which no placard, UN Number or marine pollutant mark is required; and
- .3 The UN Number for the goods and, if required, other placarding and marking such as elevated temperature, marine pollutant, limited quantity and fumigation warning sign, as provided in IMDG Code, should be displayed.
- .4 In case of class 7, the transport index (TI) indicated on the placard should be verified by a measurement of the radiation level in accordance with paragraph 5.1.5.3 of the IMDG Code and/or by calculation (sum of TI of packages).

### **Confirming the marking and labelling of packages**

5.7 Appropriate marking and labelling of packages included in the following items should be confirmed by the inspector:

- .1 Proper Shipping Name for the dangerous goods;

- .2 UN Number;
- .3 other special marking provision (e.g. marine pollutant mark); and
- .4 appropriate label; for class 7 the transport index (TI) on the label should be verified by a measurement of the radiation level in accordance with paragraph 5.1.5.3.

### **Confirming the condition of packaging**

5.8 The following items shall be checked by the inspector:

- .1 the type of packaging is permitted for the goods according to the applicable packing instruction of the dangerous goods list;
- .2 the packing is of a design type approved as required by paragraph 4.1.1.3 of the IMDG Code;
- .3 the approved packing group(s) of the design type (X, Y or Z) are consistent with the packing group of the goods (I, II or III);
- .4 single packagings used for liquids are approved for liquids;
- .5 for plastic drums and jerricans, plastic inner receptacles of IBC, check that the five years period of use is not exceeded;
- .6 for rigid IBCs check that the periods of inspections as required in paragraph 4.1.2.2.1 of the IMDG Code are not exceeded; and
- .7 the packages are sound and without serious damages; the inspecting authority should develop guidelines for the distinction between simple defects and serious damages. (Simple defects, e.g. traces of use, are insignificant under safety aspects and have no effects on the legally prescribed performance level of the package.).

### **Confirming the condition of the stowage/securing inside CTUs**

5.9 The following items should be checked by the inspector:

- .1 the mass of the cargo is evenly distributed over the floor; heavy packages are sufficiently supported;
- .2 the centre of gravity is close to the mid-length of the CTU;
- .3 where appropriate, void spaces are filled with dunnage, cardboard, air bags or other suitable material to ensure a minimum likelihood of movement of packages/cargo during transport;
- .4 the cargo is secured against movement towards the door;
- .5 if the cargo is secured by blocking or lashing: the securing material is of appropriate strength and lashings are sufficiently tensioned; and
- .6 packing should comply with IMO/ILO/UNECE Guidelines for Packing Cargo Transport Units, as amended, and/or appropriate national legislation.

### **Confirmation of the segregation of dangerous goods inside CTUs**

5.10 The following items should be checked by the inspector:

- .1 the segregation table in paragraph 7.2.1.16 of the IMDG Code has been applied correctly for the hazard classes and subsidiary risks;
- .2 specific segregation requirements as indicated in column 16 of the dangerous goods list have been complied with;
- .3 specific segregation requirements for the different compatibility groups of class 1 have been complied with; and
- .4 segregation requirements in relation to foodstuffs have been observed.

### **Control actions for deficiencies**

5.11 Establish a process for issuing deficiency reports placing a CTU out of service or cargo on hold and/or appropriate penalty actions.

### **General procedures**

- .1 Issuing a deficiency report that details the non-compliance and describes the required corrective actions. For discrepancies that are quickly corrected, the inspector should note official records as such.
- .2 Mark the CTU so it is evident that the CTU has been taken out of service and/or cargo placed on hold. The marking should be sufficiently visible on more than one side of the CTU. While the marking should not be permanent in nature, it should not be easily removable. The use of a large sticker may be appropriate.
- .3 Immediately notify the facility and/or carrier having actual custody of the deficient CTU or cargo and ensure prompt notification is made to the CTU owner or agent.

### **Serious structural deficiencies**

- .4 If a CSC container is determined to be seriously structurally deficient or has not been examined as required, the inspector should place the container out of service.
- .5 Clear detention statements should be used. The following sample text may be appropriate for both the deficiency report and marking for a seriously structurally deficient container: "Prior to reloading or reuse in international transportation, this container must be re-inspected for compliance in accordance with the procedures prescribed by [*insert appropriate legal authority*]".

### **Cargo deficiencies**

- .6 Cargo that fails to conform to the provisions of the IMDG Code should be placed on hold.
- .7 The nature of the discrepancy should help determine who should correct it.
- .8 If a discrepancy involves the cargo's package, label or other specification when the shipment was originally offered and accepted for transportation, the original shipper or freight forwarder shall be held accountable. The inspector should avoid taking action against the vessel, carrier, or waterfront facility simply because they are the most accessible party.

### **Road tank vehicle tie-down deficiencies**

- .9 Road tank vehicles that fail to conform to the provisions of the IMDG Code should be placed on hold.
- 5.12 Establish a procedure to monitor cargo placed on hold.
- 5.13 Establish follow-up procedures for CSC containers with serious structural deficiencies taken out of service.
- .1 A CSC container removed from service due to serious structural deficiencies should be repaired and re-inspected in accordance with the owner's prescribed programme. Prior to returning a CSC container to service, the owner should notify the inspector in writing that the CSC container has been brought back into compliance per the CSC or other applicable standard.
  - .2 In situations where there is an unwillingness to repair a CSC container back to applicable standards, the container owner may remove the damaged container from international service and providing such proof to the inspector.
  - .3 The removal of markings referenced in paragraph 5.11.2 should only be authorized by the inspector.

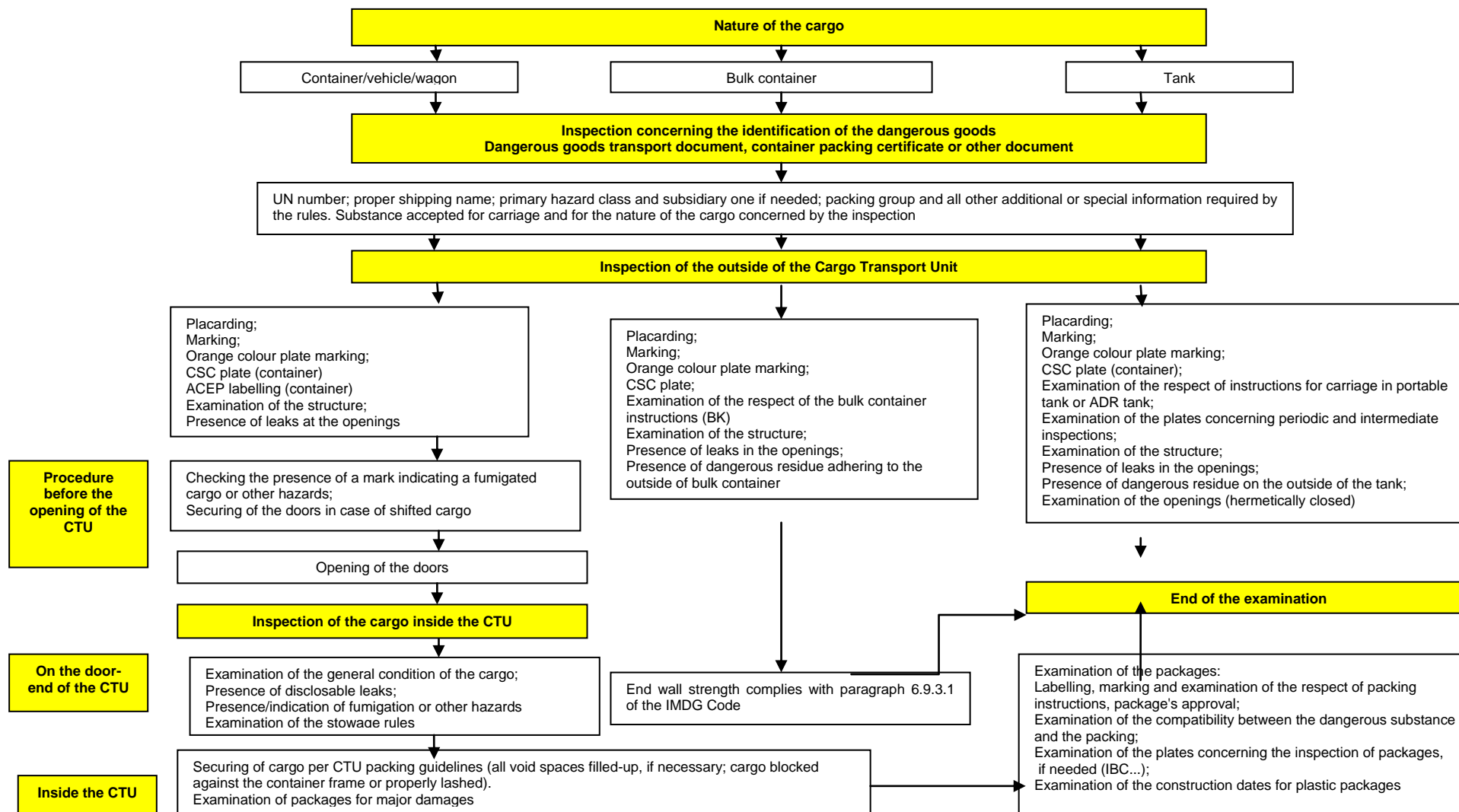
### **Inspection and recording of the results of the inspection and deficiencies record**

5.14 Inspection results and deficiencies should be recorded and archived to allow for the completion of the report requested under paragraph 4 of this circular.

### **Flowchart summarizing the inspection of cargo transport units**

5.15 The flowchart in the appendix identifies a general inspection sequence and takes into account different types of CTUs. It is intended as a job aid for inspectors.

**APPENDIX  
INSPECTION FLOWCHART  
Inspection of Cargo Transport Units carrying dangerous goods for international transport by sea**





**ANNEX 2**

**REPORTS OF INSPECTION PROGRAMMES**

Country \_\_\_\_\_

<b>Item</b>	<b>Number</b>	<b>Percentage</b>
<b><i>Inspected CTUs (5.14)</i></b>		
<b><i>CTUs with deficiencies (5.14):</i></b>		
- Total		
- Loaded/filled inside the country		
- Loaded/filled outside the country		
<b><i>Deficiencies (5.14):</i></b>		
Documentation: (1.2)		
- Dangerous Goods Declaration		
- Container/Vehicle Packing Certificate		
Placarding and marking of CTUs (1.2.3)		
Marking and labelling of packages (1.2.4)		
Packaging (inappropriate or damaged) (1.2.5)		
Portable tank or road tank vehicles not covered by CSC (inappropriate or damaged) (1.2.6)		
Stowage/securing inside the freight containers, vehicles and other CTUs (1.2.7)		
Segregation of cargo (1.2.8)		
Serious structural deficiencies (1.2.10)		
Tie down attachments of road tank vehicles (1.2.11)		

References in brackets are to paragraphs in annex 1.

\_\_\_\_\_