CASUALTY-RELATED MATTERS¹
REPORTS ON MARINE CASUALTIES AND INCIDENTS

Revised harmonized reporting procedures - Reports required under SOLAS regulation I/21 and MARPOL 73/78, articles 8 and 12

1 The Maritime Safety Committee, at its seventy-second session (17 to 26 May 2000) and the Marine Environment Protection Committee, at its forty-fourth and forty-fifth sessions (6 to 8, 10 and 13 March 2000 and 2 to 6 October 2000 respectively) approved an MSC/MEPC circular (MSC/Circ.953 – MEPC/Circ.372) on Reports on marine casualties and incidents – Harmonized reporting procedures, amalgamating and harmonizing the procedures for reporting casualties to the Organization contained in existing MSC and MEPC circulars.

2 The Maritime Safety Committee, at its eightieth session (11 May to 3 June 2005) and the Marine Environment Protection Committee, at its fifty-third session (18 to 22 July 2005) approved amendments to MSC/Circ.953 – MEPC/Circ.372.

3 Under SOLAS regulation I/21 and MARPOL 73/78 articles 8 and 12, each Administration undertakes to conduct an investigation into any casualty occurring to ships under its flag subject to those conventions and to supply the Organization with pertinent information concerning the findings of such investigations.

4 The reporting formats contained in the annexes to this circular replace the reporting forms contained in MSC 59/33, annex 3 regarding Damage cards, MSC/Circ.224 regarding Intact stability casualty records, MSC/Circ.388 on Fire casualty records, MSC/Circ.433 on Reports on investigations into serious casualties, MSC/Circ.559 on Incidents involving dangerous goods or marine pollutants in packaged form, MSC/Circ.621 on Guidelines for the investigation of accidents where fatigue may have been a contributing factor and COM/Circ.70/Rev.1 Questionnaire on the maritime distress system. The reporting format on Incidental spillages of harmful substances of 50 tonnes or more has been added, as such reports are considered necessary when investigating a casualty or an incident (MARPOL 73/78, articles 8 and 12); however, this does not replace the one-line entry report required by the annual mandatory report under MARPOL 73/78, article 11 (MEPC/Circ.318, Part 1).

¹ In order to facilitate the identification and retrieval of information circulated by means of joint MSC-MEPC circulars, from now on such information will be disseminated through the following circular series:

1 Organization and methods of work, as MSC-MEPC.1/Circ…
2 General matters, as MSC-MEPC.2/Circ…
3 Casualty-related matters, as MSC-MEPC.3/Circ…
4 Port State control-related matters, as MSC-MEPC.4/Circ…
5 Survey and certification-related matters, as MSC-MEPC.5/Circ…
6 National contact points for safety and pollution prevention and response, as MSC-MEPC.6/Circ…
5 For the purpose of reporting information to the Organization, ship casualties are classified as “very serious casualties”, “serious casualties”, “less serious casualties” and “marine incidents”. Administrations are requested to submit data for all “very serious casualties” and “serious casualties”.

Where there are important lessons to be learned from “serious casualties”, “less serious casualties” and “marine incidents”, full investigation reports should be submitted along with the additional information indicated in annex 3.

Information should also be provided in accordance with annex 10, for all casualties involving life-saving appliances whether or not there are injuries or loss of life or whether used for drills or emergencies, not withstanding paragraph 6 below.

* “Very serious casualties” are casualties to ships which involve total loss of the ship, loss of life, or severe pollution, the definition of which, as agreed by the Marine Environment Protection Committee at its thirty-seventh session (MEPC 37/22, paragraph 5.8), is as follows:

“Severe pollution” is a case of pollution which, as evaluated by the coastal State(s) affected or the flag State, as appropriate, produces a major deleterious effect upon the environment, or which would have produced such an effect without preventive action.

“Serious casualties” are casualties to ships which do not qualify as “very serious casualties” and which involve a fire, explosion, collision, grounding, contact, heavy weather damage, ice damage, hull cracking, or suspected hull defect, etc., resulting in:

- immobilization of main engines, extensive accommodation damage, severe structural damage, such as penetration of the hull under water, etc., rendering the ship unfit to proceed’, or

- pollution (regardless of quantity); and/or

- a breakdown necessitating towage or shore assistance.

“Less serious casualties” are casualties to ships which do not qualify as “very serious casualties” or “serious casualties” and for the purpose of recording useful information also include “marine incidents” which themselves include “hazardous incidents” and “near misses”.

* The ship is in a condition, which does not correspond substantially with the applicable conventions, presenting a danger to the ship and the persons on board or an unreasonable threat of harm to the marine environment.
6 Administrations are urged to submit data as indicated below.

**Information to be submitted per casualty class**

<table>
<thead>
<tr>
<th>Information to be sent in accordance with the type of casualty</th>
<th>Very serious casualties</th>
<th>Serious casualties</th>
<th>Less serious casualties</th>
<th>Marine incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annex 1 of the attached reporting format</td>
<td>To be provided within 6 months after the casualty in all cases</td>
<td>To be provided within 6 months after the casualty in all cases</td>
<td>May be provided if there are important lessons to be learned</td>
<td>May be provided if there are important lessons to be learned</td>
</tr>
<tr>
<td>Annexes 2 and 3 of the attached reported format, as well as other relevant annexes</td>
<td>To be provided at the end of the investigation in all cases</td>
<td>To be provided at the end of the investigation in all cases</td>
<td>May be provided if there are important lessons to be learned</td>
<td>May be provided if there are important lessons to be learned</td>
</tr>
<tr>
<td>Full investigation report</td>
<td>To be provided at the end of the investigation in all cases</td>
<td>May be provided if there are important lessons to be learned</td>
<td>May be provided if there are important lessons to be learned</td>
<td>May be provided if there are important lessons to be learned</td>
</tr>
</tbody>
</table>

**Very serious casualty**

preliminary information as indicated in annex 1

information as indicated in annexes 2 and 3, as well as other relevant annexes

a full investigation report in all cases

**Serious casualty**

preliminary information as indicated in annex 1

information as indicated in annexes 2 and 3, as well as other relevant annexes

a full investigation report only in cases of important lessons to be learnt regarding IMO regulations

* To be submitted within six months of the casualty date unless complete information is submitted within this time limit.
**Less serious casualty and marine incident**

Information as indicated in **annexes 1, 2 and 3, as well as other relevant annexes**, only in cases of important lessons to be learnt regarding IMO regulations

A full investigation report only in cases of important lessons to be learnt regarding IMO regulations

**Information to be submitted for casualties/incidents as indicated below**

Information from casualties involving dangerous goods or marine pollutants in packaged form on board ships and in port areas → **annex 4**

Damage cards and intact stability records → **annex 5**

Fire casualty record → **annex 6**

Global Maritime Distress and Safety System (GMDSS) → **annex 7**

Fatigue as a contributory cause to maritime accidents - Fatigue factors data compilation sheet → **annex 8**

Incidental spillage of liquids of 50 tonnes or more → **annex 9**

Life-saving appliance casualty record → **annex 10**

7. Member Governments are invited to give effect to the Code for the Investigation of Marine Casualties and Incidents, as amended, (resolutions A.849(20) and A.884(21)) when conducting investigations into marine casualties and incidents.

8. Member Governments are requested to use the present circular when reporting on marine casualties and incidents, and to make ample use of the electronic data exchange and reporting facilities available through the IMO Global Integrated Shipping Information System (GISIS) (http://gisis.imo.org/Members), as described in Circular letter No.2639 – Manual for Administration on the use of reporting facilities.


**List of annexes**

**ANNEX 1:** SHIP IDENTIFICATION AND PARTICULARS
Indicates the information to be submitted in all casualty reports.

**ANNEX 2:** DATA FOR VERY SERIOUS AND SERIOUS CASUALTIES
Indicates information to be supplied on “very serious” and “serious” casualties.

**ANNEX 3:** SUPPLEMENTARY INFORMATION ON VERY SERIOUS AND SERIOUS CASUALTIES
Additional information required for “very serious casualties” and “serious” casualties.
ANNEX 4: INFORMATION FROM CASUALTIES INVOLVING DANGEROUS GOODS OR MARINE POLLUTANTS IN PACKAGED FORM ON BOARD SHIPS AND IN PORT AREAS
This form may be applicable for marine casualties as defined as well as marine incidents.

ANNEX 5: DAMAGE CARDS AND INTACT STABILITY CASUALTY RECORDS
This form may apply to “very serious” and “serious” casualties.

ANNEX 6: FIRE CASUALTY RECORD
This form may apply to “very serious” and “serious” casualties.

ANNEX 7: QUESTIONNAIRE RELATED TO THE GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM
This form may apply to “very serious” and “serious” casualties.

ANNEX 8: FATIGUE AS A CONTRIBUTORY FACTOR TO MARITIME ACCIDENTS – FATIGUE FACTORS DATA COMPILATION SHEET
This form will apply where fatigue is deemed to be a contributory factor in the casualty.

ANNEX 9: INCIDENTAL SPILLAGES OF HARMFUL SUBSTANCES OF 50 TONNES OR MORE
This form relates to incidents involving harmful substances. The report is considered necessary when investigating a casualty or an incident (MARPOL 73/78, articles 8 and 12), however this does not replace the one-line entry report required by the annual mandatory report under MARPOL 73/78, article 11 (MEPC/Circ.318, Part 1).

ANNEX 10 LIFE-SAVING APPLIANCE CASUALTY RECORD
This form is for all casualties involving life-saving appliances, adding any other information which would provide lessons to be learned concerning the use of this equipment.

***
ANNEX 1
IMO MARINE CASUALTY AND INCIDENT REPORT

SHIP IDENTIFICATION AND PARTICULARS

Administrations are urged to supply the ship identification information listed in this annex for all marine casualty reports submitted to the Organization.

SHIP PARTICULARS

1. IMO Number:

2. Name of Ship:

3. Flag State:

4. Type of Ship:

   .1 Liquefied Gas Tanker
   .2 Chemical Tanker
   .3 Oil Tanker
   .4 Other Liquids (non-flammable) Tanker
   .5 Bulk Dry (general, ore) Carrier
   .6 Bulk Dry / Oil Carrier
   .7 Self-Discharging Bulk Dry Carrier
   .8 Other Bulk Dry (cement, woodchips, urea and other specialized) Carrier
   .9 General Cargo Ship
   .10 Passenger / General Cargo Ship
   .11 Container Ship
   .12 Refrigerated Cargo Ship
   .13 Ro-Ro Cargo Ship
   .14 Passenger / Ro-Ro Cargo Ship
   .15 Passenger Ship
   .16 High Speed Craft
   .17 Other Dry Cargo (livestock, barge, heavy cargo, etc.) Carrier
   .18 Fish Catching Vessel
   .19 Fish Factory Ship / Fish Carrier
.20 Offshore Supply Ship
.21 Other Offshore Ship
.22 Research Ship
.23 Towing / Pushing Tug
.24 Dredger
.25 Other Activities Ship
.26 Non-Propelled Ships
.27 Other Ships Structures

5. Type of service:

(   ) International
(   ) Short international
(   ) Coastal sea trade
(   ) Inland waters
(   ) Other, please state:
(   ) Not reported

6. Were any voyage related restriction limits placed on the ship? Explain:

7. Gross Tonnage:

8. Length overall:

9. Classification Society:

10. Registered Shipowner:

11. Ship Manager/Operator:

12. Previous names:

13. Previous Flag:

14. Previous Class Society:

15. Date of contract/keel laid/delivery:

16. Date of major conversion:

17. Deadweight:
18. Hull material:
   .1 steel
   .2 light alloy
   .3 ferrocement
   .4 wood
   .5 GRP
   .6 composite materials

19. Hull construction:
   .1 single hull
   .2 double hull
   .3 double bottom
   .4 double sides
   .5 mid deck
   .6 other

20. Propulsion Type (type, fuel, etc.):
    Steam □ Diesel □ Other □
    .1 Bunkers:
    Heavy Fuel Oil (HFO) □ Medium Fuel Oil (MFO) □ Marine Diesel Oil (MDO) □

21. Nature of cargo (e.g. oil, dry bulk and goods under the IMDG Code):

22. Building yard:

23. Hull number:

24. Date of total loss/constructive total loss/scrapping:

25. Number of Crew on ship’s certificate: __________

26. Number of Passengers on ship’s certificate: ______

27. Number of persons onboard at the time of the casualty/accident:
   .1 Crew: __________
   .2 Passengers: ______
   .3 Others___________
PRELIMINARY CASUALTY DATA

1. Date and time (local onboard):

2. Position/location:

3. Initial event:
   - collision
   - stranding/grounding
   - contact
   - fire or explosion
   - hull failure/failure of watertight doors/ports, etc.
   - machinery damage
   - damages to ship or equipment
   - capsizing/listing
   - missing: assumed lost
   - accidents with life-saving appliances
   - other

4. Consequences:
   - total loss of the ship
   - ship rendered unfit to proceed*
   - ship remains fit to proceed**
   - pollution
   - loss of life
   - serious injuries

5. Summary of events
   1.
   2.
   3.
   4.
   5.
   6.
   7.

***

1 For an explanation of the terms below see annex 2.

* The ship is in a condition, which does not correspond substantially with the applicable conventions, presenting a danger to the ship and the persons on board or an unreasonable threat of harm to the marine environment.

** The ship is in a condition, which corresponds substantially with the applicable conventions, presenting neither a danger to the ship and the persons on board nor an unreasonable threat of harm to the marine environment.
ANNEX 2

IMO MARINE CASUALTY AND INCIDENT REPORT

DATA FOR VERY SERIOUS AND SERIOUS CASUALTIES

CASUALTY DATA

1 Date and local time of casualty: (24 hr clock) (dd/mm/yyyy)

2 Position of casualty (Latitude, Longitude):

3 Location of casualty:

3.1 At berth
3.2 Anchorage
3.3 Port
3.4 Port approach
3.5 Inland waters
3.6 Canal
3.7 River
3.8 Archipelagos
3.9 Coastal waters (within 12 miles)
3.10 Open sea

4 Pilot on board

5 Type of casualty (initial event):

5.1 Collision: striking or being struck by another ship (regardless of whether under way, anchored or moored).

5.1.1 IMO Number of other ship involved. (not coded)
5.1.2 Name of other ship involved. (not coded)

5.2 Stranding or grounding: being aground, or hitting/touching shore or sea bottom or underwater objects (wrecks, etc.).
5.3 Contact: striking any fixed or floating object other than those included in No.1 or 2.

5.4 Fire or explosion.

5.5 Hull failure or failure of watertight doors, ports, etc.: not caused by Nos.1 to 4.

5.6 Machinery damage: not caused by Nos.1 to 5, and which necessitated towage or shore assistance.

5.7 Damages to ship or equipment: not caused or covered by Nos.1 to 6.

5.8 Capsizing or listing: not caused by Nos.1 to 7.

5.9 Missing: assumed lost.

5.10 Accidents with life-saving appliances.

5.11 Other: all casualties which are not covered by Nos.1 to 10.

6 Type of subsequent events:

6.1 Collision: striking or being struck by another ship (regardless of whether under way, anchored or moored).

6.1.1 IMO Number of other ship involved. (not coded)

6.1.2 Name of other ship involved. (not coded)

6.2 Stranding or grounding: being aground, or hitting/touching shore or sea bottom or underwater objects (wrecks, etc.).

6.3 Contact: striking any fixed or floating object other than those included in No.1 or 2.

6.4 Fire or explosion.

6.5 Hull failure or failure of watertight doors, ports, etc.
6.6 Machinery damage which necessitated towage or shore assistance.

6.7 Damages to ship or equipment.

6.8 Capsizing or listing.

6.9 Missing: assumed lost.

6.10 Other: all events which are not covered by Nos.1 to 9.

7 Consequences of the casualty:

7.1 Consequences to the ship involved in the casualty:

7.1.1 Total loss

7.1.2 Ship rendered unfit to proceed*

7.1.3 Ship remains fit to proceed**

7.2 Consequences related to human beings:

7.2.1 Number of dead or missing crew

7.2.2 Number of dead or missing passengers

7.2.3 Number of other dead or missing persons

7.2.4 Number of crew being seriously*** injured in the casualty

7.2.5 Number of passengers being seriously*** injured in the casualty

7.2.6 Number of other persons being seriously*** injured in the casualty

* The ship is in a condition, which does not correspond substantially with the applicable conventions, presenting a danger to the ship and the persons on board or an unreasonable threat of harm to the marine environment.

** The ship is in a condition, which corresponds substantially with the applicable conventions, presenting neither a danger to the ship and the persons on board nor an unreasonable threat of harm to the marine environment.

*** Incapacitated for 72 hours or more.
### 7.3 Consequences to the environment (pollution):

#### 7.3.1 Oil in bunkers

<table>
<thead>
<tr>
<th>Type of oil</th>
<th>Quantity spilled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy fuel</td>
<td></td>
</tr>
<tr>
<td>Diesel</td>
<td></td>
</tr>
<tr>
<td>Lube oils</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

#### 7.3.2 Oil cargo

<table>
<thead>
<tr>
<th>Type of oil (not coded)</th>
<th>Quantity spilled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crude oil</td>
<td></td>
</tr>
<tr>
<td>Persistent refined oil</td>
<td></td>
</tr>
<tr>
<td>Non-persistent refined</td>
<td></td>
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<tr>
<td>products</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
</tr>
</tbody>
</table>

#### 7.3.3 Chemicals in bulk

Category (Appendix I to Annex II of MARPOL 73/78)

<table>
<thead>
<tr>
<th>Quantity in tons spilled</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
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<tr>
<td>B</td>
</tr>
<tr>
<td>C</td>
</tr>
<tr>
<td>D</td>
</tr>
</tbody>
</table>
### 7.3.4 Dangerous Goods in packaged form

<table>
<thead>
<tr>
<th>Class (IMDG Code)</th>
<th>Proper Shipping Names</th>
<th>UN numbers</th>
<th>Quantity lost overboard</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
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<td></td>
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<td>3</td>
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<td>4.1</td>
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<td>4.3</td>
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<tr>
<td>5.1</td>
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<td></td>
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<td>5.2</td>
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<td></td>
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<tr>
<td>6.1</td>
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<td></td>
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<tr>
<td>6.2</td>
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<tr>
<td>7</td>
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<td></td>
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<td>8</td>
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<tr>
<td>9</td>
<td></td>
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</tr>
</tbody>
</table>

#### 8 Primary causes of the initial event:

Coding principle:

a. The human element is a complex multi-dimensional issue that affects maritime safety and marine environmental protection. It involves the entire spectrum of human activities performed by ships’ crews, shore based management, regulatory bodies, classification societies, shipyards, legislators and other relevant parties.

b. Effective remedial action following maritime casualties requires a sound understanding of the human element involvement in accident causation. This comes by the thorough investigation and systematic analysis of casualties for contributory factors and the causal chain of events.

#### 8.1 Internal causes (related to the ship where the casualty occurred):
8.1.2 Human violations or errors by the pilot:

.1 Human violations
.2 Human error

8.1.3 Structural failures of the ship

8.1.4 Technical failure of machinery/equipment including design errors:

.1 Failure of propulsion machinery
.2 Failure of essential auxiliary machinery
.3 Failure of steering gear
.4 Failure of closing arrangements or seals
.5 Failure or inadequacy of navigational equipment
.6 Failure of bilge pumping
.7 Failure of electrical installation
.8 Failure or inadequacy of communication equipment
.9 Failure or inadequacy of lifesaving appliances
.10 Ship design errors (i.e. insufficient stability)
.11 Other

8.1.5 The ship’s cargo:

.1 Cargo shifting
.2 Fire or explosion in cargo
.3 Improper stowage of cargo
.4 Spontaneous combustion
.5 Cargo liquefaction
.6 Other

8.2 External causes (outside the ship):

8.2.1 Another ship or ships (improper actions, etc.)

8.2.2 The environment:

.1 Heavy sea
.2 Wind
.3 Currents or tides
.4 Icing
.5 Ice conditions
.6 Restricted visibility
8.2.3 Navigational infrastructure:

.1 Failures in aids to navigation
.2 Inaccurate charts or nautical publications
.3 Charts or nautical publications unavailable for the sea
.4 VTS

8.2.4 Criminal acts

8.2.5 Other “external” causes (i.e. not associated with the ship itself)

.1 Tug boat operations
.2 Failure or incorrect operation of shore equipment or installation
.3 Other than .1 and .2

8.3 Unknown causes

9 Violations and error types:

9.1 Violation (deliberate decision to act against a rule or plan):

9.1.1 Routine (cutting corners, taking path of least effort, etc...)
9.1.2 Necessary (due to inadequate tools or equipment, improper procedures or regulations)
9.1.3 “For kicks” (thrill seeking, to alleviate boredom, macho behaviour)
9.1.4 Exceptional (taking risks to help people in distress, lack of system knowledge)

9.2 Slip (unintentional action where failure involves attention):

9.2.1 Incorrect operation of controls or equipment
9.2.2 Left/Right, reversal
9.2.3 Failure to report due to distraction
9.2.4 Other

9.3 Lapse (unintentional action where failure involves memory):

9.3.1 Forgetting to report information
9.3.2 Failure to advise Officer on the Watch
9.3.3 Other
9.4 Mistake (an intentional action where there is an error in the planning process; there is no deliberate decision to act against a rule or procedure):

9.4.1 Error in judgement
9.4.2 Inappropriate choice of route
9.4.3 Deciding not to pass on information
9.4.4 Failure to respond appropriately
9.4.5 Other

10 Underlying factors:

10.1 Liveware:

10.1.1 Physiological
   .1 Fatigue
   .2 Stress
   .3 Alcohol/illegal drug
   .4 Prescription medicine

10.1.2 Psychological
   .1 Excessive workload
   .2 Communication
   .3 Standards of personal competence
   .4 Lack of familiarity or training
   .5 Panic and fear
   .6 Boredom
   .7 Mental and emotional disorders

10.1.3 Physical
   .1 Hearing problem
   .2 Visual problem
   .3 Injuries and illness
   .4 Less than adequate medical fitness

10.1.4 Others
10.2 **Hardware:**

10.2.1 Equipment not available

10.2.2 Ergonomics

10.2.3 Design failures (other than ergonomics)

10.2.4 Maintenance and repair

10.2.5 Other

10.3 **Software:**

10.3.1 Company policy and standing orders

10.3.2 Less than adequate operating procedures and instruction

10.3.3 Management and supervision

10.3.4 Other

10.4 **Environment:**

10.4.1 Ship movement/Weather effects

10.4.2 Noise

10.4.3 Vibration

10.4.4 Temperature/Humidity

10.4.5 Less than adequate manning

10.4.6 Other

***
ANNEX 3

IMO MARINE CASUALTY AND INCIDENT REPORT

SUPPLEMENTARY INFORMATION ON VERY SERIOUS AND SERIOUS CASUALTIES

To assist completion of marine casualty analysis, in addition to the information in annexes 1 and 2, the following information is required:

1. Principle findings and form of casualty investigation:

2. Action taken:

3. Findings affecting international regulations:

4. Assistance given (SAR operations):

***
ANNEX 4

IMO MARINE CASUALTY AND INCIDENT REPORT

INFORMATION FROM CASUALTIES INVOLVING DANGEROUS GOODS OR MARINE POLLUTANTS IN PACKAGED FORM ON BOARD SHIPS AND IN PORT AREAS

This report is a supplement to the report made by the master in accordance with guidelines and general principles adopted by the Organization by resolution A.851(20) in case of an incident involving dangerous goods, harmful substances and/or marine pollutants in packaged form on board ships and in port areas.

The information should be provided in case of:

- an accident with loss of life, injury or damage to ship or property; or

- an accident, where an unsafe situation, an emergency or loss has occurred involving dangerous goods in packaged form and marine pollutants.

The information should be provided by the Administration carrying out the investigation, if necessary in consultation with other parties involved (e.g. authorities of ports of loading, transit or discharge, etc.) and forwarded to the International Maritime Organization together with recommendations, if considered necessary, for rectifying any detected deficiencies.

The summary and recommendations of any subsequent investigations should also be reported to the Organization.

INFORMATION FROM INVESTIGATION OF INCIDENTS INVOLVING DANGEROUS GOODS OR MARINE POLLUTANTS IN PACKAGED FORM

1. Cargo(es) involved

1.1 Proper Shipping Name: UN Number: IMO Hazard Class *

1.2 Name and address of manufacturer, or consignor, or consignee:

* Data should be provided only if not supplied otherwise.
1.3 Type of packaging/container:

1.4 Quantity and condition of goods:

1.5 Stowage/Securing arrangements:

2. Pollution - goods lost overboard (yes/no):
   If yes:
   2.1 Quantity of goods lost:

   2.2 Lost goods floated or sank:

   2.3 Lost goods released from packaging (yes/no):

3. Brief account of the sequence of events*:

4. Extent of damage*:

* Data should be provided only if not supplied otherwise.
5. Emergency response measures taken:

6. Comments on compliance with applicable convention/recommendation requirements:

7. Comments on effectiveness of applicable convention/recommendation requirements:

8. Measures/recommendations to prevent recurrence:

9. Further investigation (yes/no)*:

***

* Data should be provided only if not supplied otherwise.
ANNEX 5

IMO MARINE CASUALTY AND INCIDENT REPORT

DAMAGE CARDS’ AND INTACT STABILITY CASUALTY RECORDS

Statistics of damaged ships and of intact stability casualties are important to the work of the Organization in respect to improvement of subdivision and intact stability criteria in various conventions, codes, recommendations, and guidelines. Member Governments are invited to continue to submit to the Secretariat damage data and intact stability casualty data using the format in this annex.

* The Secretariat, while incorporating amendments to the cover and to annexes 1 and 2 of the present circular, also included the amendments to MSC/Circ.224, which were approved by the Maritime Safety Committee at its fifty-ninth session (MSC 59/33, annex 3).
DAMAGE CARDS

Damaged Ship

Length between perpendiculars* \( L = \)________

Moulded breadth* \( B = \)________

Moulded depth* \( D = \)________

Height of subdivision deck = ___________

Draught before damage: amidships \( d = \)________ (or fore = ________ and aft = ________)

Struck/striking______________________

Bulkhead (or freeboard) deck

Dimensions and location of damage (see sketch above)

Distance from AP to centre of damage* \( X = \)_______

Distance from baseline to the lower point of damage \( Z = \)_______

Length of damage* \( l = \)________  \( l_1 = \)________

Height of damage* \( h = \)________  \( h_1 = \)________

Area =

Penetration of damage* \( b = \)________  \( b_1 = \)________

(if damage extends above bulkhead (or freeboard) deck, additional dimensions should be given for the part located below this deck, these being marked with suffix “1”)

Dimensions and location of bottom damage

Distance from AP to centre of damage* \( X = \)_______

Distance from CL to centre of damage = ________  Port or starboard?________

Length of damage \( l = \)_____ Width of damage = ________  Area = ________________

Depth of damage \( d = \)_______

Second ship involved in collision (to be completed in case of collision between two ships).

Length between perpendiculars* \( L = \)________

Moulded breadth* \( B = \)________

Moulded depth* \( D = \)________

Draught before damage: amidships \( d = \)________ (or fore = ________ and aft = ________)

Struck/striking______________________

NOTES FOR DAMAGE CARD

1. Damage cards should be completed for decked, steel sea-going ships 25 m in length and over, for all breaches of the hull causing flooding of any compartments (collision, stranding, etc.).
2. The term “damaged ship” refers to the ship for which this card is being completed.
3. A sketch showing location of damage and of main transverse bulkheads would be desirable.
4. Depth \( D \) should be measured to the bulkhead deck in passenger ships and to the freeboard deck in non-passenger ships (or to uppermost completed deck, if bulkhead or freeboard deck are not specified).
5. In case of collision with another ship, it is desirable to fill in damage cards for both ships.
6. All measurements should be given in metres.
7. Data marked with an asterisk (*) are the most important.
Additional data to be supplied if available

1. Wind and sea (Beaufort scale) at time of casualty ____________________________
2. Speed at time of impact, in knots:
   Damaged ship \( v_1 \)____________________
   Second ship \( v_2 \)____________________
3. Angle of encounter ______________________
4. Did the ship to which this card refers sink? _________________________________
   If not, give draught after damage _________________________________
   If so, indicate time taken to sink after collision _________________________ and manner of sinking _________________________________
5. Appropriation of breached compartment(s) (e.g. machinery room, cargo hold, etc.) _______
6. Type and quantity of cargo in damaged compartment, if any __________________________
7. Were there any special circumstances which influenced the results of damage (e.g. open watertight doors, manholes, sidescuttles, or pipes, fractures, etc.)? __________________________
8. Position of watertight bulkheads in vicinity of damage (distance from AP to each of them) __
9. Was a transverse subdivision bulkhead damaged? _________________________________
10. Was the collision bulkhead damaged? __________________________________________
11. Number of compartments flooded _____________________________________________
12. Was there a double bottom in the damaged area? _______________________________
    If so, indicate whether the inner bottom was breached ____________________________
13. Was there a separate penetration from the bulbous bow? __________________________
14. Any additional information considered useful (details of construction, etc.) _______
15. Striking ship bow geometry \( X_1 = \)__________ \( X_2 = \)__________ \( X_3 = \)__________
    \( Y_1 = \)__________ \( Y_2 = \)__________
INTACT STABILITY CASUALTY RECORD

Length between perpendiculars* \( L_{pp} = \) __________
Breadth moulded* \( B = \) ______________ Depth moulded* \( D = \) ______________
Draught amidships to assigned loadline or subdivision line \( d \) _______ or forward _______ and aft _______
Service conditions (light or loaded, with approximate percentage of cargo, stores, fuel and passengers)
________________________________________________________________________________
________________________________________________________________________________
Type of cargo, if any ___________ disposition ___________ stowage factor _______________
Deck cargo, if any ______________ type ______________ quantity _______________
Quantity of ballast water, if any
Sea and wind conditions at time of casualty: sea* ___________ wind* (Beaufort scale) ___________
Wind velocity \( u \) ________________ Wind pressure \( p_v \) _________________
Wave length _______________ Wave height \( h_w \) _________________
Direction of wind relative to ships head _______________ (degrees)
Direction of waves relative to ships head _______________ (degrees)
Speed of ship at time of casualty \( V \) ________________ knots
Name, length and height of enclosed superstructures and deck-houses above the deck to which \( D \) was measured _______________________________________________________________________
________________________________________________________________________________
Bilge keels: Width(o) _______________ Longitudinal extent(o) _______________
Depth of bar keel, if any(o) _______________ If so, indicate the extent _______________
Were all vulnerable openings effectively closed at time of casualty? _______________
________________________________________________________________________________
Was icing a contributory factor to casualty? __________________________________________
Was the vessel under action of helm at time of casualty? __________________________________
Were any special instructions relative to this ship in existence, concerning the maintenance of stability, e.g. filling tanks, etc.? _______________________________________________________________________
________________________________________________________________________________
Were any voyage limits and/or weather restrictions imposed for the vessel? _______________
________________________________________________________________________________
Were any particular circumstances related to the casualty? _______________
Give short description of casualty\(^1\) __________________________________________________
________________________________________________________________________________
________________________________________________________________________________
________________________________________________________________________________
________________________________________________________________________________
________________________________________________________________________________

Note

\(^1\) Data should be provided only if not provided otherwise.
### General Particulars

<table>
<thead>
<tr>
<th>Parameter</th>
<th>For ship in fully loaded homogenous arrival condition (with 10% stores, fuel, etc.)</th>
<th>For ship in condition at time of loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Draught (amidships) <strong>d</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Displacement <strong>\Delta</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Centre of gravity above moulded base line <strong>KG</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metacentric height (uncorrected) <strong>GM</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distance between the transverse metacentre and centre of buoyancy <strong>BM</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduction in GM due to any free surface of liquids <strong>\delta</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block coefficient of fineness of displacement <strong>\beta</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coefficient of fineness of waterplane <strong>\alpha</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Height of centre of buoyancy above moulded base line <strong>KB</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral area of ships profile (including erections, etc.) <strong>A_v</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distance between centre of lateral area of ships profile exposed to wind</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estimated rolling period (P-S-P) (in seconds) <strong>T_r</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rated amplitude of roll (maximum) <strong>\theta_r</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angle of heel for immersion of uppermost continuous deck <strong>\angle</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Righting levers (\textit{GZ}) based upon centre of gravity (\textit{G}) corrected for any free surfaces, for the following angles of heel: <strong>\angle</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0°</td>
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<tr>
<td>10°</td>
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<tr>
<td>20°</td>
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<tr>
<td>30°</td>
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<td>70°</td>
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<tr>
<td>80°</td>
<td></td>
<td></td>
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<tr>
<td>90°</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum righting lever <strong>GZ_{m}</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angle of maximum stability <strong>\theta_{m}</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angle of vanishing stability <strong>\theta_{v}</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lightship Displacement <strong>\Delta_{L}</strong></td>
<td><strong>KG_{0}</strong></td>
<td></td>
</tr>
<tr>
<td>Centre of gravity above moulded base line <strong>KG_{0}</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### NOTES FOR INTACT STABILITY CASUALTY RECORD

1. Casualty records to be completed for all seagoing passenger ships, sea-going cargo ships of 25 metres in length and over, and sea-going fishing vessels of 15 metres in length and over, in respect of both losses of ships and cases in which dangerous heeling occurred due to unsatisfactory intact stability, including those cases where loss or heeling of the ship was due to shifting of cargo.
2. Depth **D** should be measured to the bulkhead deck in passenger ships and to the freeboard deck in non-passenger ships (or to uppermost completed deck, if bulkhead or freeboard deck is not specified.)
3. The metric system should be used for all measurements.
4. Data marked with an asterisk (*) are the most important.
5. The provision of data marked (*) is optional.
6. It is desirable to attach a sketch of statical stability curves, drawn for both the below loading conditions, using the following scales:
   (i) 20 mm for every 10° angle of inclination.
   (ii) 10 mm (or 20 mm) for every 0.1 metre of righting lever.
ANNEX 6

IMO MARINE CASUALTY AND INCIDENT REPORT

DATA FOR VERY SERIOUS AND SERIOUS CASUALTIES

FIRE CASUALTY RECORD

In addition to supplying the information requested in this annex, Administrations are urged to also supply the information listed in other relevant annexes of MSC-MEPC.3/Circ.1, in particular the information contained in annex 1 (ship identification and particulars).

1 Operational Condition of Ship:

(   ) Loading
(   ) Unloading
(   ) Awaiting departure
(   ) Under repair (afloat or dry dock)
(   ) Other, please state: ______________
(   ) Not reported

2 Local conditions when fire was discovered: ___________

.1 Time (local onboard) at which fire was discovered (daylight or darkness): __________

.2 Wind force (Beaufort scale and direction): __________

.3 State of sea (and code used): __________

3 Part of ship where fire broke out: ____________

4 Probable cause of fire: ____________________

.1 Briefly describe on-board activities that were contributing factors (cargo operations, maintenance, hot work, etc.):

.2 Probable cause of ignition:

5 Explain how persons onboard were alerted:

6 Means by which fire was initially detected: *

(   ) Fixed fire detection system
(   ) By ships crew or passenger
(   ) Not known

* A ‘✓’ is to be inserted, as appropriate.
7 Briefly, describe the performance of structural fire protection (fire resisting and fire retarding bulkheads, doors, decks, etc.) with respect to:

.1 Containment and extinguishment of any fire in the space of origin: ________
.2 Protection of means of escape or access for fire fighting: ________
.3 Adequacy of structural fire protection: ________

8 Ship’s portable fire-extinguishing equipment used (foam, dry chemical, CO₂, water, etc.):

9 Fixed fire-extinguishing installations: _____________

.1 At site of origin of fire (specify the type): _____________
.2 Adjacent areas (specify the type): _____________
.3 Were fixed fire-extinguishing systems used in an attempt to extinguish the fire? _____________
.4 Did the use of fixed fire-extinguishing systems contribute to the extinguishment of the fire? _____________

10 Briefly explain the action taken by the crew to contain, control and suppress fire and explosion in the space of origin:

11 Was outside assistance provided (e.g. fire department, other ship, etc.) and, if so, what equipment was used:

12 Determine qualifications and training of all ship’s crew involved in the incident, not only the fire-fighting operations, but also any related actions that may have contributed to the fire (see item 4):

13 Report on whether company or industry procedures, including hot work procedures, were in place and relevant to the operation concerned:

14 If the procedures were in place, were they correctly implemented?

15 Time taken to fight fire from first alarm:

.1 To control the fire: _____________
.2 Once controlled, to extinguish the fire: _____________

16 Total duration of fire: _____________
17 Damage caused by fire:
   .1 Loss of life, or injuries to personnel:
   .2 To the cargo:
   .3 To the ship:
   .4 Release of pollutants:

18 Was there any failure of the fire-fighting equipment or systems when used?
   If yes, were the equipment and/or system maintenance records up to date (e.g. servicing)?

19 Was there an adequate supply of air on board for self-contained breathing apparatus or was outside assistance needed to supply such air?

20 Observations and comments:

***
ANNEX 7

IMO MARINE CASUALTY AND INCIDENT REPORT

QUESTIONNAIRE RELATED TO THE
GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM

1 The purpose of this questionnaire is to enable the Sub-Committee on Radiocommunications and Search and Rescue to assess the effectiveness of the global maritime distress and safety system and to recommend improvements where necessary.

2 Member Governments are urged to complete the questionnaire in respect of distress and safety incidents occurring to ships under their flag, adding any other information which, at their discretion, would provide lessons to be learned concerning the application of the global maritime distress and safety system.

3 In addition, Member Governments are encouraged to pass any relevant information they may possess on casualties concerning foreign ships to the country in which such ships are registered.

.1 (a) GMDSS sea area or sea areas for which radio equipment was installed:
________________________________________________________
________________________________________________________
________________________________________________________

(b) Date and time of incident (UTC): _____________________________
________________________________________________________

.2 Brief description of:

(a) GMDSS sea area: _________________________________________
________________________________________________________

(b) weather conditions during SAR operations: _________________
________________________________________________________

.3 Description of distress and safety radiocommunications, including particulars of the following items:

(a) means of communication (radiotelegraphy, radiotelephony, INMARSAT SES, DSC, EPIRB) and frequencies used for:

distress alert by ship: _______________________________________

distress relay by RCC: ________________________________

SAR Co-ordinating communications: ___________________________

(b) use of alarm signal: ______________________________________

(c) contents of distress message: ________________________________

(d) RCC(s), ships, coast station or coast earth stations which acknowledged
distress message (state time and position): ______________________

(e) language difficulties: _______________________________________

.4 If the ship was abandoned, description of distress radiocommunications and location
signals from survival craft: ______________________________________

.5 If a satellite EPIRB or EPIRB was used for alerting and/or locating survivors, give
details (frequency, type of activation, etc.) and which LUT/CES or coast station
received the alerting signal: ______________________________________

.6 Description of on-scene radiocommunications, including surface/air
communications:

.7 Any unusual, or additional, radiocommunication aspects, apparent shortcomings
and/or lessons to be learned: _____________________________________

***
ANNEX 8

IMO MARINE CASUALTY AND INCIDENT REPORT

FATIGUE AS A CONTRIBUTORY FACTOR TO MARITIME ACCIDENTS
FATIGUE FACTORS DATA COMPILATION SHEET

This compilation sheet should be completed and submitted with each maritime accident investigation report where fatigue has been identified as a contributory factor. The compilation sheet should indicate the cause of the identified fatigue. See MSC/Circ.621 for guidelines for the investigation of accidents where fatigue may have been a contributing factor.

Fatigue identified in this accident was caused by (Check all factors that apply):

1  Management/regulatory factors
   Contractual arrangements _____
   Work and rest periods _____
   Manning levels _____
   Watchkeeping practices _____
   Assignment of duties _____
   Shore-ship-shore support and communication _____
   Management policy _____
   Voyage planning _____
   Recreational facilities _____

2  Ship factors
   Level of automation _____
   Reliability of equipment _____
   Motion characteristics _____
   Vibration, heat and noise levels _____
   Quality of working and living environment _____
   Cargo characteristics/requirements _____
   Ship design _____

3  Crew factors
   Period on board _____
   Experience/training _____
   Crew composition, cohesiveness, and relationships _____
   Crew competency and quality _____
   Personal problems and condition _____

4  External factors
   Weather _____
   Port conditions _____
   Ice conditions _____
   Density of vessel traffic _____

***
ANNEX 9

IMO MARINE CASUALTY AND INCIDENT REPORT

INCIDENTAL SPILLAGES OF HARMFUL SUBSTANCES OF 50 TONNES OR MORE

The following additional information should be submitted for each incident involving spillage of 50 tonnes or more of harmful substances. See annexes 1 and 2 of this circular for information to be submitted on vessel identification and casualty specifics. One copy of the report should be retained by the reporting State, one copy to be sent to the flag State, and one copy to be sent to the International Maritime Organization.

This reporting format on Incidental Spillages of Harmful Substances of 50 Tonnes or more has been added, as the report is considered necessary when investigating a casualty or an incident (MARPOL 73/78, articles 8 and 12), however this does not replace the one-line entry report required by the annual mandatory report under MARPOL 73/78, article 11 (MEPC/Circ.318, Part 1).

Part 1

To be completed by the reporting State

1. Was the date of the incident known or estimated? _____________

2. Location of the incident (select one of the following):
   - .1 in inland waters □
   - .2 in the territorial sea □
   - .3 within the exclusive economic zone □
   - .4 outside the exclusive economic zone, in international waters □

3. Reporting State: _______________________________________

Report completed by: (Administration and address)
____________________________________
____________________________________
____________________________________
____________________________________
Part 2

Information to be supplied by the reporting State and/or the flag State

4. Action taken by reporting State:

   .1 Response to the spill:
      .1 no action
      .2 clean-up efforts
      .3 salvage efforts
      .4 other, i.e.

   .2 Legal action:
      .1 no action
      .2 action to be taken by flag State
      .3 pending
      .4 action taken by reporting State, i.e.

   .3 Measures/recommendations to prevent recurrence:

   .4 Additional information:
Direct Natural Resource Damages

Loss of wildlife

- Impact on birds
- Impact on marine mammals
- Impact on fish
- Impact on other marine life, including invertebrates

Loss of fisheries

- Fin fish
- Shellfish
- Fish farming

Damage to marine environment

Damage to shore environment

Habitat Degradation

- Soft Habitats (salt marshes, mangroves, mudflats)
- Shoreline (Beaches)
- Rocky Coasts/Reefs, including coral

Part 3

To be completed by the flag State

5. Legal action taken by flag State

   .1 no action
   .2 pending
   .3 action taken, i.e.

***
ANNEX 10

LIFE-SAVING APPLIANCE CASUALTY RECORD

The purpose of this casualty record is to enable the gathering and collation of statistical data on both novel and traditional life-saving appliances, in order that the safety of these appliances may be assessed and improvements made if necessary on the basis of reliable risk information.

Administrations are urged to supply the additional information listed in this annex for all casualties involving life-saving appliances, adding any other information which would provide lessons to be learned concerning the use of life-saving appliances.

1 Location of casualty:
(See annex 2, items 3.1-3.10)

.1 Was the ship: underway □ in port □ at anchor □

2 Local conditions:

2.1 Local time (24-hr clock):
   Daylight □ Darkness □

2.2 Wind force (Beaufort scale):

2.3 Wave height (observed):

2.4 Sea Temperature: ______ °C

2.5 Air temperature: ______ °C

2.6 Ice conditions Yes □ No □

2.7 Warm Climates Yes □ No □

3 Type of life-saving appliance involved:

3.1 Inflatable liferaft: □ Capacity: ______ POB: _____
   .1 Davit launched Yes □ No □

3.2 Marine Evacuation System (MES): □
   .1 Vertical □ Slide □

3.3 Lifeboat □ Capacity: ______ POB: _____
   .1 Davit launched □ Free fall □
3.4 Buoyant apparatus □

3.5 Ship’s rescue boat □

3.6 Launching appliances Capacity: _______ POB: ______

3.7 Other: ___________ Capacity: _______ POB: ______

4 Type of personal life-saving appliance used:

4.1 Immersion suit □

4.2 Lifejacket □

4.3 Personal Flotation Device (PFD), other than Lifejacket □

4.4 Anti-exposure suit □

4.5 Lifebuoy □

5 Reason for deployment of life-saving appliance:

5.1 Emergency evacuation / abandonment □

5.2 Crew training □

5.3 Deployment as required by regulations □

5.4 Approval Trials (give details) □

6 Nature of casualty/incident

(See annex 1, paragraph 5)

7 Details of injuries/fatalities:

7.1 Number of life-saving appliance related fatalities

Crew: ______ Passengers: ______ Others: ______

7.2 Number of life-saving appliance related injuries

Crew: ______ Passengers: ______ Others: ______
APPENDIX

GUIDANCE FOR PREPARING THE LIFE-SAVING APPLIANCES CASUALTY RECORD

The following examples could be taken into account when preparing the description of contributing factors for the purpose of entering the life-saving appliances casualty record:

Design factor examples:
1. The design made it hard for people to carry out reasonable tests.
2. The design provided no means to detect predictable hazard conditions.
3. Use of the design was vulnerable to predictable human failings.
4. The design was inadequately specified for the required duty.
5. Operation of the design was vulnerable to circumstances.
6. Release mechanism design problems.

Human factor examples:
1. Inadvertent operation of equipment.
2. Inadequate maintenance of equipment.
3. Communication failures.
4. Lack of familiarity with equipments and associated controls.
5. Unsafe practices during drills and inspections.