

Precautions to prevent pollution of the environment from the release of fuels found on ships subject to the IGF Code

Presentation scheme:

Basic knowledge of measures to be taken in the event of leakage/spillage/ venting of the fuels from ships subject to the IGF Code

- Reporting relevant information to the responsible persons
 - Contingency plans
 - Communication sources
- Awareness of shipboard spill/leakage/ venting response procedures
 - Contingency plans
 - Communication with media and public
 - Post-incident review and investigation
- Awareness of appropriate personal protection when responding to a spill/ leakage of fuel addressed by the IGF Code.
 - Breathing apparatus
 - Protective clothing

Contingency plan

The ISM code requires that the ship operator has contingency plans in place and that the ship and the shore establishment must be able to coordinate their activities.

While at sea the ISM code specifies that the Master has full responsibility for the safety of the ship and its crew and may take whatever measures he feels necessary to achieve this.



Contingency plan

If casualty occurs in territorial waters the national authority may be involved and the Master's actions may be constrained to some degree. This is especially true when third parties may be at risk. This may mean that contingency plans may need to be adapted to take account of national authority's requirements.



Casualties alongside a terminal are more complex. Responsibility is shared between the Master and the terminal management who have a duty to protect the terminal facilities, staff and environment.

Awareness of the Purpose and Principles of a Contingency Plan

The general aim of all plans is to ensure there is a rapid response to a situation with enough scope to deal with the varied size and exact nature of any given incident. The plan should aim to control the incident, stop any escalation of the situation, minimise the risk to personnel, the vessel and environment.



Preparing Plans

The following should be considered when preparing contingency plans:

- Type of incident
 - Fuel release/spillage
 - Fire
 - Breakdown of equipment
- Possible consequences
 - Gas cloud
 - Fire
 - Brittle fracture
 - Exposure of personnel

Preparing Plans

- Action to be taken
 - Shut down bunkering operations
 - Assessment of the situation
 - Selection of appropriate response
 - Organisation and control of personnel
 - Control of the incident
- Control and communications
 - Senior officer in charge
 - Organisation of shipboard response
 - Delegation of duties
 - Communication with others
 - Terminal
 - Port authority
 - Operators of the vessel
- Training and drill

Components of a plan

- Risk assessment – determining the risk of spills and expected consequences;
- Strategic policy – defining the roles and responsibilities and providing a summary of the rationale for operations;
- Operational procedures – establishing procedures when a spill occurs;
- Information directory – collecting supporting data;

Risk assessment

- What is the likelihood of a spill occurring?
- What are the probable consequences?

Strategic policy

- Plan overview
- Response techniques
- Response resources
- Leadership, command and management

Operational procedures

- Notification
- Evaluation
- Initiation
- Mobilisation
- Clean – up support
- Progress review
- Termination

Information Directory

- Operational references
- Sample documents
- Supplementary information

Post – incident review

Proper training and a clear understanding of roles and responsibilities is essential to the investigation process. All employees and people that will be involved in an incident investigation should be aware of what their role is in the process and how to perform their assigned responsibilities during an investigation process.

Gather evidence

One of the most critical and complex part of the investigation is the gathering of evidence.

Timing of an incident investigation could be crucial to the outcome.

Awareness of appropriate personal protection

- Breathing apparatus
 - Short duration breathing apparatus
 - Fresh air respirators
 - Compressed air breathing apparatus
 - Canister filter respirators

- Protective clothing

Short-duration breathing apparatus

Short-duration breathing apparatus consists of a small compressed air cylinder and a polythene hood which may be rapidly placed over the head. Their duration is limited to about 15 minutes of comparatively non-exertive effort and the sets must be used only for emergency escape purposes.



<http://www.git-security.com>

Fresh air respirators

Fresh air respirators consist of a helmet or face mask linked by a flexible hose (maximum length 40 metres) through which air is supplied by a manual bellows or rotary blower. The equipment is simple to operate and maintain and its operational duration is limited only by the stamina of the bellows or blower operators. However, movement of the user is limited by the weight and length of hose and great care must be taken to ensure that the hose does not become trapped or kinked.



<https://rivergear.com>

Compressed air breathing apparatus

- self contained type (SCBA)
- the air-line version (ALBA)

<https://www.scottsafety.com>



<http://www.frsa.com.au>



Protective clothing

In addition to breathing apparatus, full protective clothing should be worn when entering an area where contact with cargo is a possibility. Types of protective clothing vary from those providing protection against liquid splashes to a full positive pressure gas-tight suit which will normally incorporate helmet, gloves and boots. Such clothing should also be resistant to low temperatures and solvents.

- One self-contained air breathing apparatus not using stored oxygen having a capacity of at least 1200L of free air.
- Protective clothing, boots, gloves and tight fitting goggles.
- Steel-covered rescue line with belt.
- Explosion proof lamp.

THANK YOU FOR YOUR ATTENTION