



## **A delayed response to a fire can be fatal for the fire team**

Preventing a fire in the first place is always better than fighting it. However, in the unfortunate event of a fire, the aim is to extinguish it while it is in its “local” state, i.e. it should not have spread to other compartments or machinery/equipment. At the same time it is a very important consideration that the fire fighters must not be exposed to an unacceptable degree of risk. Response time is therefore critical.

## Consequences of a delayed response

Lack of operational readiness of fire-fighting equipment, a centralized chain of command, gaps in training and familiarization of crew are some of the matters that can contribute to delayed response times in actual fire incidents. The effect can be three-fold:

- A

### **more dangerous environment**

for the fire fighters, i.e. the team tasked with entering the compartment on fire.

### **• Increased severity**

as the fire can spread to other parts of the vessel thus leading to greater damage. On a general note, the spread of a fire depends on a number of factors and growth in size can be considered directly proportional to the square of 'time', i.e. as time passes the fire grows. For this reason they are sometimes referred to as

$t^2$ -squared fires.

### **• Greater difficulty**

in extinguishing the fire.

## Recommendations

- Man entry (of fire fighters) may not always be the safest option to extinguish a fire. To avoid exposing the firefighting team to the heightened risk, there may be instances where the use of fixed fire-fighting systems may be a safer and more effective way to fight the fire. Such assessments by the master should, amongst others, take into account the time elapsed between the first reporting or detection of the fire to the time of man entry.

- We encourage the ship's firefighting team to note their response time during drills. Such observations should take into account elements such as: the time taken for various tasks (head count, closing fuel valves, closing vents, donning SCBA etc.) before making the man entry, location of the fire on board, and how the response time changes over time during subsequent drills.

While the drills would ensure the readiness of the firefighting team, it is worth recognizing that the response during an actual emergency may be different. For this reason, we recommend that the master makes a calculated assessment of the situation before authorizing a man entry into a compartment on fire.

## Gard publications on shipboard fires

- Loss Prevention poster:  
[Firefighting\\_LowRes.pdf](#)

- Case study:  
[Gard%20Case%20study%20-%20engine%20room%20fire%20and%20failure%20of%20fir](#)

[e%20fighting%20systems.pdf](#)

- Case study:

[Gard%20AS%20-%20Case%20study%20-%20engine%20room%20fire.pdf](#)

- Case study:

[Gard%20-%20Case%20study%20%20-%20use%20of%20fixed%20and%20portable%20fire%20extinguishers.pdf](#)

- Presentation on shipboard fires (2019):

[Fire%20feeds%20on%20negligent%20deeds.pdf](#)

- Inoperative water mist systems - a frequent cause of detentions
- [Gard%20LPC%20Fire%20prevention%20in%20engine%20rooms.pdf](#)
- Facing the challenge of fire at sea
- Fire safety in the engine room
- Container ship fires: Gard conference promotes the value of industry collaboration