
**MEDITERRANEAN ACTION PLAN (MAP)
REGIONAL MARINE POLLUTION EMERGENCY RESPONSE CENTRE FOR THE
MEDITERRANEAN SEA (REMPEC)**

Sixteenth Meeting of the Focal Points of the Regional
Marine Pollution Emergency Response Centre for the
Mediterranean Sea (REMPEC)

REMPEC/WG.61/INF.8
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Sliema, Malta, 13-15 May 2025

Agenda Item 6: Illegal and accidental oil and HNS pollution from ships

Future response to incidents involving alternative fuels

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Note by the Sea Alarm Foundation

The document provides information on the results of a recent 2-day OneX workshop recently held in the UK, which aimed to explore the challenges of three alternative fuel incident scenarios in an estuary environment close to villages and cities.

Background

1. The Mediterranean Strategy 2022-2031 includes under the area of influence 1.3 Operations, action 1.3.4 “To develop a framework for holistic and integrated management of marine pollution incidents that enable a coordinated preparedness and response operation at sea and onshore, incorporating the response to oil-affected wildlife, at a national level and in the region-wide cooperation”
2. The fulfillment of this action could be approached by exploring and aligning the setup and communication systems of the existing national and international emergency structures for maritime and coastal response in the framework of typical oil spill response scenarios. More important, however may be to start building on the awareness that in the next years and decades the risks connected to the maritime transport system has the potential of changing considerably due to processes related to the energy transition and climate change. The topics of HNS and Alternative Fuels will become increasingly important; the first vessels that are propelled by alternative fuels are already appearing.
3. As part of the recent IRA-MAR Project (2022-2024), Sea Alarm made a proposal for a framework for holistic and integrated management, which was summarized by the term ‘One Incident, One Response’. This proposal was accompanied by the new OneX incident simulation methodology that was also developed under this project. Both the One Incident One Response framework and the OneX simulation tool were presented and tested during an IRA-MAR workshop attended by European and North African maritime authorities in Brussels, November 2023. Following this workshop, Finland, Sweden, and UK started further exploring the OneX methodology and use it at national level. Sweden adopted the One Incident One Response philosophy as a national strategy for preparing for marine incident response. In June 2024, Sea Alarm, Finland and Sweden were invited by the European Commission to present the One Incident One Response approach at the EU’s Civil Protection Forum and demonstrate the OneX methodology. The OneX methodology since IRA-MAR has been further extended with HNS modules which can be used to train and develop understanding of the Marine HNS Manual. These modules have been used and demonstrated in several HELCOM (Baltic) events such as HELCOM RESPONSE meeting (July 2024) and a dedicated BALEX ALPHA exercise in Lithuania (August 2024).
4. This paper aims to draw attention to the results from a more recent 2-days OneX workshop recently held in the UK (see Annex1 and Annex2), which aimed to explore the challenges of three alternative fuel incident scenarios in an estuary environment close to villages and cities. Sea Alarm was invited to structure, lead and moderate the workshop using the OneX methodology. The workshop was attended by over 30 participants from national and local authorities, shipowners, insurers, energy companies and the response industry. The results from this workshop are worth sharing as a number of key conclusions were drawn in relation to action 1.3.4 from CSO1 in the Action Plan on the Mediterranean Strategy.

Actions requested by the Meeting

5. **The Meeting is invited to:**
 - .1 **take note** of the information provided in the present document; and
 - .2 **comment** as deemed appropriate.

Annex 1

Results from a recent UK workshop to explore future response to alternative fuel incidents

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Results from a recent UK workshop to explore future response to alternative fuel incidents

January 14-15, 2025, a workshop (see Annex 2) took place in the UK that was aiming to explore the national readiness for the type of future incidents related to the arrivals of vessels in UK ports that are driven by alternative fuels. Many UK stakeholders were sharing the concern that incidents with such vessels in or near ports and harbours, or estuaries, could lead to unprecedented complex situations for which existing response systems may not be fully prepared.

In order to explore such scenarios and structure the discussions within a time slot of two exercise days, Sea Alarm was invited to moderate this workshop, using its OneX methodology. Sea Alarm developed new original OneX modules to be able to meet the ambitious objectives of the workshop and created a setup that allowed in-depth discussions from three different perspectives on the same simulated scenario.

The workshop was attended by over 30 participants from multiple organisations with various responsibilities, including SOSREP, MCA, Harbour masters, Ship owners, Energy Companies, P&I, ITOPF, OSRL, Salvors, and local resilience forums (collaborating local emergency services, e.g. police, ambulance, firefighters, civil protection).

Three predefined scenarios were exercised at the workshop, each taking ca 2,5 – 3 hours to complete.

Beforehand, some exploring webinars were held to explore the needs and expectations from the anticipated workshop participants. Many concerns were expressed about the complexity of alternative fuel scenarios and the required expertise and knowledge to discuss this, as well as the question of how the discussions could be meaningfully structured within the two days available.

At the end of the workshop all participants were fully aligned about their findings and determined in drawing some main conclusions and listing multiple lessons learned. The insights into the workshop strongly motivated the participants to continue and deepen their collaboration and develop national guidelines for dealing with future maritime scenarios on the basis of the collective workshop learnings.

The main conclusions from the workshop were:

- The challenges from an alternative fuel or HNS incident are complex and immediate, and the required emergency response needs to be based on a paradigm that is different from that we have currently in place to deal with traditional hydrocarbons.
- If these types of incidents happen close to the shore, in estuaries or in harbours, a fully integrated and immediate response is needed to protect citizens and environmental sensitive areas, but for which we are currently ill-prepared.

Some main conclusions and insights are described by the attached report, developed by the co-organisers of the workshop, UK and Ireland Spill Association, and IPIECA's HNS Task Force.

These conclusions, and many observations of existing gaps in response capabilities to HNS and alternative fuels, point into the direction of the importance of implementation of action 1.3.4 from CSO1 in the Action Plan on the Mediterranean Strategy in the framework changing risks that require a One Incident One Response philosophy.

In their feedback participants of the workshop were unanimous in their recommendation of the OneX methodology for providing clear focus and structure to important discussions, allowing this workshop to obtain so much value from a two-day event.

Annex 2

**Report on Ipieca/UK and Ireland Spill Association 2 Day Alternative Fuels Desktop Exercises
14 and 15 January 2025
(UK and Ireland Spill Association)**



24 Feb 25

All in Stakeholder Group

Report on Ipieca/UK and Ireland Spill Association 2 Day Alternative Fuels Desktop Exercises 14 and 15 Jan 25

1. Introduction

With Ipieca support, the UK and Ireland Marine Alternative Fuels Preparation Group held desktop exercises over 2 days in London on 14 and 15 January using the One X serious game to explore three marine alternative fuel spill scenarios and their associated response actions.

The exercise was a collaboration between the UK & Ireland Spill Association Marine Alternative Fuels Preparation Group, Ipieca Alternative Fuels and Products Response Task Force and Sea Alarm who developed and managed the delivery of this serious game.

The aim of this 2-day exercise was to identify areas that can improve the ease of response to alternative fuels and test the integration between decision makers and responders.

Thirty-three participants drawn from across the UK maritime community participated as ship owners, ports, regulators, responders, insurers, STS, modellers, consultants, local authorities and SOSREP; see Annex A.

Since the meeting I have been receiving feedback and have met online or in person with many of the participants – thank you.

2. Outcomes – what we learned

Regulations	HNS convention - gaps in regulations. UK not yet a signatory Insurance implications of HNS as a cargo vs bunker fuel
Liability and Responsibility	Vessel owner may have limited responsibility to respond however surrounding response by local communities may be significant. Who foots the bill/provides funds for response efforts.?
Capability	Confusion exists regarding HNS capability in UK HNS misunderstood Responders lack capability and training FRS capability differs by county and local statutory requirement Paradigm shift in response required in speed, equipment and technology Knowledge however does exist but in clusters
Monitoring and Modelling	Recognition receiving ports should have gas monitoring in place - who is responsible for this (ownership and ££)? Worst case vs realistic modelling scenarios of gas clouds - who is responsible for this (who does this and ££)?

	Speed of modelling scenarios vs incident over within a few minutes.
Speed of Response	HNS releases may be very quick and immediate action required Can ports deliver initial response and communicate to bluelight services/LRF sufficiently quickly
Specialist Support	Do Statutory Harbour Authorities / local ER services etc have the connections to industry SME's (do they need it or have their own?). Can this specialist support be provided instantaneously? If not, what can we do to plug this gap (industry vs civil authorities). Training and equipment gaps
Collaboration	A HNS response may involve many agencies, this leads to greater demand for closer collaboration. Industry to promote relationships (internally and at Ipieca level) - continued learning events.
Response Frameworks	A multi-agency response may require different response framework integrating / working in parallel... Recognition civil ER agencies follow their own ER frameworks vs ICS / IMS - how can we integrate / escalate between the 2 frameworks <i>quickly</i> ? What does response look like? On site and remote

3. Outcomes – what we need to do

Communicate	Keep this stakeholder group together to further develop our knowledge and deliver outcomes Agree ship owner, port, local authority response guidelines to ensure risks understood, responsibilities allocated and confidence in delivery Industry to build relationship with ports where HNS are being delivered and transferred. Industry to introduce itself to LRF in locations where product is being delivered and transferred. Share knowledge gained from HNS exercises (e.g. Rotterdam and Singapore)	All Industry Industry All
Consult	Group must consult across sector: Ports and Shipping: British Ports Authority; UK Major Ports Group; UK Harbour Masters Organisation, British Chamber of Shipping etc Insurance: IGP&I Alternative Fuels Group	Appoint reps to relevant groups (some of this has happened)
Develop Best Practice	Need to update: A Guide to Good Practice on Port Marine Operations https://assets.publishing.service.gov.uk/media/5dfcc4a8ed915d1f5dc3d3ad/MCGA-Port_Marine_Guide_to_Good_Practice_NEW-links.pdf Need to provide update to Port Marine Safety Code Develop guidance in conjunction with British Ports Association (BPA). Agree specific guidance by fuel type for Ports, Owners and Operators	



	Contribute to NFCC National Operational Guidance	
Modelling	Assist in development of modelling tool suited to gaseous clouds in port environment	Responders and Modellers
Sensing	Compile information on sensing technology for use in port environment for detection of hazardous vapour release in port/vessel environment	Responders
PPE/RPE	Compile list of suitable PPE/RPE for use in alternative fuels environments	Responders
Risk assessment	Find existing risk assessments for these chemicals and share from a central online location for all to access. Industry to assess terminals they are using for air monitoring and response capability.	Ipieca Industry

4. Next Steps

All I have spoken to are confident that the group's members have the knowledge and enthusiasm to collaborate to evolve solutions and develop the necessary guidance. Many have indicated that we can quickly deliver tangible outcomes from the group.

The consensus is that there should be a series of working groups that work on their specialism in the outcomes above. Perhaps as follows:

Ship owners and ports	Agree most appropriate route for guidance eg Port Operating Guidelines alongside BPA
Modelling	With responder group develop reliable modelling tool for use in port environment and around vessel.
Responders	RPE and PPE, sensors and gas detectors, proven response techniques eg drenching for Ammonia
Local authority and LRF	Provide general information to create awareness as a further risk for local consideration
Insurance and legal	Provide legal guidance to ship owners and port operators

5. Follow on meetings

It is important to keep the Group together to maintain momentum and to co-ordinate what we are doing.

Following the issuing of this report there will be a Stakeholder Group Meeting on Teams to discuss this report and its contents at Tuesday 11 March 1000-1130.

Follow on meetings will be as follows:

Tuesday 22 April 1000-1100 Teams

Tuesday 10 June 1000-1100 Teams

To update on progress, guidance, modelling, insurance, etc there will be a two day face to face meeting in London on WC 22 Sept to include a one scenario desktop exercise. Location TBC

Live Ex 20 – 21 October TBC

6. Conclusion

All who attended the two-day desktop exercise learned and took away something of relevant to their post. It also delivered confidence that if we keep the group together we can deliver guidance and give direction to all involved in the safe management of the risk posed by marine alternative fuels.

However, there is a busy summer ahead of us to make good progress on that.

Thank you for your support and see you on the Teams meeting on 11 March.

Yours Sincerely

Mark

Mark J Orr
Executive Director

Annex:

A. Desktop Exercise Simulating Shipping Incidents Involving Alternative Fuels At Ipieca 14 And 15 January 2025: Attendee List



Annex A

DESKTOP EXERCISE SIMULATING SHIPPING INCIDENTS INVOLVING ALTERNATIVE FUELS AT IPIECA 14 AND 15 JANUARY 2025 Attendee List

1.. Participants

The participants were as follows:

Evelyn Voaden, Deputy Harbour Master, Harwich Harbour Authority – (William Barker – remote)
Glenn Bowyer, National Fire Chiefs Council representative
Neil Chapman, Maritime and Coastguard Agency representative
Steve Storey, Oil Spill Response - responder
Mark Harvey, Oil Spill Response - responder
Andrew Le Masurier, ITOFF – responder
Annabelle Nicolas-Kopec, ITOFF - responder
Marcus Russell, Sureclean, responder
Martin Barnes, Ambipar, responder
Jack Burge, Adler and Allan
Dirk de Jong, Blue Tack Salvage - salvor
Gary Gibson, STS Marine - Ship to Ship Transfer specialist
Stephen Fairlie, Director DFDS Seaways
Tim Culmer, Riskaware - modelling
Erin Walton, West P&I – Insurer representative
Daisy Roche, IG P&I – Insurer representative
Lisa McAuliffe –SOSREP (Day 1 Only)
James Hannon – ABPmer Port Operator (Day 2 Only)
Paul Harrold - UK Health Security Agency
Stan Woznicki - Maritime and Coastguard Agency representative
Stuart Hankey, Environment Agency
Catherine Boyer-Besant, Tendring BC, Local Resilience Forum
Justine Lee, **Mark McShane**, **Claudia Caetano** Shell
Andrew Tucker, **Clare Wood** bp
Polly Hill, **Joshua Wong**, **Polly Boor** Ipieca
Captain Nick Haslam, Brookes Bell
Stuart Hankey, **Advisor**, Emergency Planning and Preparedness, Incident Management and Resilience, Environment Agency
Peter Taylor, Ipieca