EU - EEA Member States

Table Top Exercise

on the EU Operational Guidelines - Places of Refuge

NCA CHEM

Horten, Norway
27/28 September 2017

EXERCISE REPORT
(October 2017)
Table of Contents

Executive Summary ................................................................. 5
Foreword .................................................................................. 6
Abbreviations Used ................................................................. 7
Introduction and Setting ............................................................. 8
Objectives ................................................................................ 9
Location and Logistics ............................................................... 10
Exercise Scenario ..................................................................... 10
First Plenary Session – information gathering ................................ 11
First break-out session ............................................................. 18
Second plenary session – feedback from groups ............................ 19
Third plenary session – decision making process ......................... 20
Second break-out session .......................................................... 24
Fourth plenary session ............................................................. 24
Exercise conclusions ............................................................... 25
About the setup ........................................................................ 25
About the decision-making process ............................................ 26
Outputs and Recommendations .................................................. 28
Operational .............................................................................. 28
OGs possible areas for further improvements/adjustments ............ 30
TTX Dynamics - progressing management and method .................. 31
Closing remarks and acknowledgements ..................................... 32
Annex I – Planning team and list of participants ............................ 33
Exercise management and planning team .................................... 33
List of participants .................................................................... 34
<table>
<thead>
<tr>
<th>Annex II – Exercise area and scenario</th>
<th>35</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenario options for the TTX</td>
<td>36</td>
</tr>
<tr>
<td>Annex III – Injects/order of events</td>
<td>37</td>
</tr>
<tr>
<td>Annex IV – Exercise agenda</td>
<td>40</td>
</tr>
<tr>
<td>Attachments</td>
<td>42</td>
</tr>
</tbody>
</table>
EXECUTIVE SUMMARY

Norway’s large-scale pollution exercise (SCOPE 2017), in September 2017, provided a ready-made scenario which was adapted for the purposes of the 3rd PoR TTX "NCA CHEM", enabling the sequence of events to be as close to a real situation as possible. The planning team, including MS and Industry stakeholders focussed the TTX scenario on the chemical tanker involved in the hypothetical collision within the SCOPE scenario. This introduced an HNS element, requiring more challenging considerations and decisions.

A real risk assessment involving the lead State (NO) and all concerned supporting MS (SE and DK) was carried out together with industry (Salvage, Class and Insurers). This came to the conclusion that the toxic cloud coming from the Gas Carrier risked drifting in over populated areas along the relevant coast causing severe danger. The exercise also showed that a place of refuge is not always a port.

The TTX proved the OGs to be fit for purpose. The scenario required utilisation of all EMSA tools, systems and services that are available to assist with HAZMAT incidents. The Integrated maritime system was used ‘live’ providing all relevant maritime situational information, including weather forecast and drift models.

The OGs were closely followed throughout the exercise and feedback from all delegates and stakeholders were supportive of what the document sets out to achieve and of the format in which they are framed. The TTX was an opportunity to identify further improvements, clarifications and adjustments to the current version of the OGs.

Although the exercise was a success, in a constantly changing commercial, political and technological landscape, complacency should be avoided. The OGs must be continually reviewed to keep them up to date. To help achieve this, the commitment to maintaining a programme of biennial exercises with challenging scenarios should remain in place. As was the case with this exercise future TTXs should not preclude the involvement of non-member Coastal European States, given that it is an established aspiration to extend the principles of the OGs beyond EU jurisdiction.

A synchronised session with the parallel WS on Claims Management (CM), also under EMSA’s aegis, gave the opportunity to provide injects from the TTX operational group to the CM group for further deliberation on legal issues arising throughout the PoR decision making process.

There was a clear need for training of the OGs identified, as well as the suggestions for how involved industry actors could possibly have access to some of the information available.
Foreword

The need for training coming out from the exercise was taken up by the rapporteurs as encouragement. The shape of this report was then devised in such a way that it may be adopted itself as input to a user-friendly training model or a guidance tool. To this effect it was provided with tips, ‘bon mot’ markers and examples-wise injects (all the attachments).

Maritime/coastal administrations, national competent authorities, operational as well as training centres, may therefore be motivated to find herein a valuable trail when preparing for drills and exercises alike at national, bilateral or regional level respectively.

Beyond the main aim of input to the PoR Cooperation Group, the report can serve the broader range of operators to familiarize with the decision-making process and with the recurring stances of all stakeholders involved in the challenging event of handling a vessel in need of assistance. All the more so, as they are expected to deploy a broad array of services in such circumstances.

The added value of the report is therefore a layout encouraging considering all involved parties as part of the problem solution, in the interest of safety, security and environmental protection, bearing in mind that inevitably each stakeholder is in on the decision-making process with different remits and interests.

Indeed, beyond the foregone cooperative approach to PoR events involving more than one coastal State, the EU acquis on ‘international coordination’ (enshrined in art.20a(f) of the VTMIS Directive) is the underlying requirement for these exercises. Hence, participants are expected to share tools, coordination paradigms and procedures, with a view to developing a common practice to timely and effectively interact to handle and resolve PoR requests and situations.
ABBREVIATIONS USED

CA .... Competent Authority
CM ..... Claims Management
EC ..... European Commission
EEA .... European Economic Area
EMSA .... European Maritime Safety Agency
ERS ..... Emergency Response Service
HAZMAT ..... Hazardous Materials
H&M ..... Hull & Machinery
LOU ..... Letter of Undertaking
MAR-CIS ..... Marine Chemical Information Sheets
MAR-ICE ..... Marine Chemical Emergency Information Service
MAS ..... Maritime Assistance Service
MRCC ..... Maritime Rescue Coordination Centre
MS ..... Member State
NCA ..... National Competent Authority
OGs ..... Operational Guidelines
P&I IG ..... Protection & Indemnity International Group
PoR ..... Place/s of Refuge
SEG ..... SSN Ecosystem Graphical User Interface
SITREP ..... Situation Report
SSN ..... SafeSeaNet
TTX ..... Table Top Exercise
WG ..... Working Group
WS ..... Workshop

This marker flags 'bon mot' worth bearing in mind along the decision making process.

This marker signals suggestions worth considering as possible improvement of operational setup, OGs or exercise dynamics.

This marker hyperlinks attachments to ease cross-referencing and use.
INTRODUCTION & SETTING

The issue of accommodating ships in need of assistance has grown in importance since the incident involving the MSC Flaminia in 2012 which led to the setting up of the dedicated cooperation group (CG) under Article 20(3) of Directive 2002/59/EC.

The Places of Refuge Operational Guidelines, as developed by the group, with the support of concerned industry stakeholders, introduced a new spirit of enhanced cooperation and coordination between different Member States and with industry. They provide a robust operational process leading to well-advised but quicker decision-making, building on effective, speedy and accurate sharing of information as key enabling factors. The process is 'bottom up', aiming to foster wider involvement and drawing attention to a broader scenario extending beyond the EU borders, whereby, in order to fulfil the obligation deriving from the legal provisions, concerted plans/guidelines for decision-making can be envisaged. The OGs support MSs in a constructive way, implementing the rules and assisting Competent Authorities as the main operational bodies in the decision-making process.

The development of the OGs incorporates related ongoing work in the context of the VTMIS Directive, in particular the work on HAZMAT Guidelines and Database, including MAR-ICE and MAR-CIS, within the Union Maritime Information and Exchange System.

The idea for the development of robust Operational Guidelines was an output from the 1st EU wide TTX held in Rotterdam in November 2013.

Following the production of the draft Guidelines, a 2nd TTX took place on 1 September 2015 in Malta.

The Malta TTX provided the opportunity for the draft OGs to be thoroughly tested through a realistic scenario. The TTX gave rise to several suggestions for improvements to the procedures within the draft OGs and these were incorporated within the final published document. At the same time all participants signed up to a declaration guiding the future development and improvement of the OGs. In order to keep the OGs up to date, they should be tested biennially through similar TTXs held within different European jurisdictions. On the offer from Norway the 3rd TTX was held in conjunction with the larger - SCOPE2017 – exercise in September 2017.

Southern Norway was identified as an ideal location for this 3rd TTX, involving a chemical tanker named 'NCA CHEM', giving scope for a scenario that could draw on significant input from Denmark and Sweden as Supporting Member States.

One day before the TTX kick-off, the small planning group of volunteering MS, Industry, EMSA and the COM met in Horten to fine-tune the details of a scenario they had been preparing over the year, focussing on the chemical tanker in the hypothetical collision.

This preparatory meeting allowed for carrying out a TTX ‘dry run’, as recommended in the aftermath of the 2nd TTX in Malta, with a view to developing an enhanced coordinated approach between the MS directly affected by the accident: NO, DK, SE and possibly UK.

In parallel, the annual Claims Management Workshop, held also in Horten, focused on cost recovery, liability and compensation issues arising at the time of an incident and in its aftermath. Such a meeting was a well-timed occasion to dovetail relevant aspects from both setups. A joint session was carved out over the two day TTX for an exchange of respective legal and operational viewpoints.

**OBJECTIVES**

The 3rd EU table top exercise on PoR had three main objectives:

1. To continue testing the general applicability of the EU Operational Guidelines for PoR in any PoR case with special focus on the operational features recently added, including hyperlinks to the Central Hazmat Database (CHD), the Chemical information network of specialists and database of chemical substances available through EMSA (MAR-ICE and MAR-CIS) and the Emergency Response Services' (ERS) support provided by the industry, enriching the Union Maritime Information and Exchange System at the core.

2. To test the OGs particularly in the use in practice of integrated info exchange tools, especially those relevant to HAZMAT cargo handling as well as other relevant systems;
3. To test the OGs - at the operational level - in consideration of liability/financial guarantee issues while adopting a decision on granting a PoR and to involve the Claims Management WG in the discussion by providing an inject to the parallel Claims WS.

LOCATION AND LOGISTICS

The exercise was held at the Sjømilitære Samfund hotel in Horten, Norway. Agenda attached.

On Day 1 of the TTX, following the initial plenary session of scenario setting and related presentations, the exercise attendees were split into 3 break-out groups to consider their response to the different stages of the unfolding scenario. After each break-out session, the groups then reconvened in plenary to discuss their conclusions. The delegates were joined on the morning of Day 2 by the delegates from the separate Claims Management Workshop that was being held in Horten concurrently, to provide an inject to that group regarding liability and financial guarantee for costs recovery.

EXERCISE SCENARIO

The PoR TTX utilised the scenario that was created for the large-scale pollution response exercise – SCOPE2017 – happening further south in the Langesund area, during the same week.

This scenario involved a collision between two ships; an oil tanker and a liquefied gas carrier (NCA CHEM) in the Skagerrak Strait, 12 nm from the Norwegian coastline. Although the week-long Exercise SCOPE was concerned with the response to the significant pollution caused by both vessels, it was made very clear by the Exercise Director that the PoR TTX was exclusively concerned with the fate of the chemical tanker and where she might be accommodated to be stabilised and repaired.
DAY 1 – 27 September 2017

1. FIRST PLENARY SESSION - INFORMATION GATHERING

1.1 Opening addresses were provided by EMSA, the European Commission (EC) and the Norwegian Coastal Authority (Exercise Director). Delegates were welcomed to the exercise and given a summary of how the OGs came to be developed and what the 3rd TTX hoped to achieve.

1.2 EMSA demonstrated within the OGs how the SafeSeaNet (SSN) Ecosystem Graphical User Interface (SEG) provides access to EMSA’s maritime applications and datasets. Among these, the tracks of the ships involved in the incident, the lists of national competent authorities NCA, MRCC, MAS and respective points of contact (available both through a dedicated hyperlink of the OGs and the SEG graphical interface). EMSA referred to the foreseen incorporation of vessels' general arrangements plans as a pilot project under development and further explained that the SEG would soon integrate Clean Sea Net, providing satellite imagery to assist with oil spill detection.

The first Situation Report (SITREP) related to the TX exercise scenario was introduced.

1.3 The Exercise Director presented the exercise opening scenario:

- Two ships collided; an Oil Tanker and a Liquefied Gas Carrier in the Skagerrak Strait, 12 nm from the Norwegian coastline.
- NO authorities notify neighbouring countries about the incident, following a request for international assistance through CECIS and according to regional agreements.
- The Liquefied Gas Carrier is instructed to go to the Yara terminal, Porsgrunn, Norway, 25 nm from the collision site for hull inspection (on its own propulsion);
- At 10 nautical miles to the destination, the crew detected an ammonia odour;
- Emergency authorities gave orders for the ship to stop immediately;
During visual inspection, the crew detected a small leak from tank number 1. According to the cargo manifest, tank 1 contains ammonia anhydrous; Ammonia may leak to the water, releasing energy (exothermic reaction). It is a marine pollutant. Consideration given to the situation that there are some fish farms nearby; Two crew members suffered injuries from inhaling ammonia. First aid measures were given to the two crew members but they need to be transported to hospital; Danger of toxic vapour cloud formation, putting at risk the health and safety of the population living in the area; According to the weather forecast, during the next 2 days the wind is expected to blow from SW reaching 10 knots. Based on modelling results with these conditions the ammonia toxic vapour cloud may reach the harbour areas of Larvik and Nevlunghavn within 24 hours; The ship is asked to move away from shore; The ship master cannot restart the engines; Auxiliary engines and all backup systems are not working; As a consequence, the re-liquefaction plant stopped working; The temperature may increase: safety relieve valves will open to reduce pressure inside the tanks and consequently more substance may be released to the atmosphere; The crew detected that the tank transporting LPG has been compromised (thermal insulation is damaged) due the ammonia leak. There is danger of explosion; SAR teams need to approach the vessel to transport the crewmembers injured to the nearest hospital. However, there is a risk of explosion due to the LPG leak. The emergency teams cannot approach the ship. A specialised vessel or a helicopter is required.

1.4 It was very clearly emphasised by the Exercise Director that the TTX would only be concerned with considering the issues relating to handling and finding a PoR for the chemical tanker. The oil tanker was not a consideration for the exercise purposes and it was assumed to have made its way safely to a port under its own propulsion.
1.5 EMSA provided a presentation on the tools that the Agency has to offer to assist with incidents involving HNS at sea and the challenges presented by such incidents:

**MAR-ICE – Marine Intervention in Chemical Emergencies Network**
EMSA service providing 24/7 access to chemical expertise for Member States during maritime emergencies including risk assessments on how chemicals will react in water/air.

**MAR-CIS – Marine Chemical Information Sheets**
A database of concise information sheets providing substance specific and maritime relevant information.

1.5.1 EMSA demonstrated how their tools could be used to obtain information on the HNS material on the NCA CHEM vessel. Information included how the ammonia and LPG might react if mixed or released into the sea. It was advised that a toxic cloud may be formed if released to the air and various values of Protective Action Criteria were shown and the potential implications of this that would influence the response to the incident scenario.

1.6 EC drew attention to the fact that the OGs provide links to the EMSA resources described and emphasised that the TTX is designed to encourage participants to use the tools provided by EMSA to support Member States during incident response. EC noted that the common information platform provided by EMSA stems from a legal requirement to provide all Member States with access to the same information.

1.6.1 EC confirmed that although less comprehensive HAZMAT information is available on an open access basis (a hyperlink for ‘guest’ users’ to the CHD was recently added to the OGs), the MAR-CIS and MAR-ICE tools are restricted to Member States only. Whereby required, other parties would need to access relevant information through a Member State authority.
1.6.2 It was noted by representatives of the salvage industry that access to the EMSA tools would be useful for a contracted salvor involved in a shipping incident and that there would also be potential for the salvor to themselves provide useful information into the system, making granting of such access mutually beneficial.

1.7 DNV GL gave a presentation on the Emergency Response Service (ERS) provided by the Classification Society. Following an incident, the ERS can provide advice on the condition of the vessel before and after the incident, damage stability and residual strength calculations. Vessels subscribed to the service have baseline data collected to enable effective analysis of damage if the vessel is involved in an accident. This is extremely useful when assessing a request for a PoR. ERS customers typically include ship owners, salvage companies, insurers and Government authorities. The ERS service can be provided for vessels that are not pre-subscribed, but this will result in a slower response time. A caveat pointed out is that of being aware of potential conflict of interests arising from the contracts the Classification Societies have with different subjects and sometimes the need to reach shipyards of the vessel. Insurance representatives (Gard) encouraged ERS to fully cooperate with the Authorities.

1.7.1 In the case of NCA CHEM the initial evaluation by the ERS crisis team, soon after the alert and before the situation deterioration, shows the ship has a very good margin, very low stress and is not worrying yet.

1.8 The International Salvage Union gave an insight into the role of the salvor. The importance was highlighted of engagement and cooperation between Government authorities and contracted salvors from the earliest point when trying to resolve a shipping incident. An overview of some of the more common types of salvage contract that are used was given and it was noted that the salvage industry is broadening its outlook to encompass other aspects of maritime emergency response.
1.8.1 The value of using a contracted salvor who will already have arrangements in place with many of the sub-contractors that are required during a salvage operation and the expertise to co-ordinate all of the various services required, was emphasised. The challenges were noted of working in an environment where a salvor is contracted by the ship owner but needs to balance the latter’s demands with the over-riding regulations and necessary approvals of the Coastal State authority. The salvage industry is always keen to share good practice experienced within Europe with authorities in other parts of the world.

1.8.2 Engagement between salvors and incident stakeholders outside of incidents is always helpful. Due to commercial and legal constraints, it cannot always be assumed that all information required by salvors to help them resolve a shipping incident will be immediately forthcoming. The Salvage plan builds also on commercial information, e.g. ITOPF and on knowledge of MSs' contingency plans where available.

1.8.3 Temporary access to SEG was discussed, being up to the NCAs to grant it. About the more general issue of EMSA systems and services availability to the industry, EC informed that work is ongoing within the governance group (High Level Steering Group) to establish what information can be opened and re-used. Salvors (ISU) plea for not only having access, but to feed into the system as well.

1.8.4 A contracted salvor will endeavour to provide a Government authority with a basic outline salvage plan at the earliest juncture. Consideration of salvage plans must be approached with a flexible attitude as the nature of salvage operations means that they are changeable. Advice is provided in order to avoid escalation and how to prevent and possibly refloat.

1.8.5 Although environmental protection is now a far higher priority for the salvor, it cannot be ignored that value preservation is an unavoidable consideration for the salvor, as this impacts on payment for services rendered.
1.8.6 An outline salvage plan was circulated for the NCA CHEM scenario. The salvage plan specified that a PoR would be required for the necessary remedial work on the vessel. It should not be assumed that a port is always the best place of refuge following a PoR request. Depending on circumstance and assessment (as the TTX showed) an anchorage in sheltered waters is the most appropriate option.

1.8.7 The Salvor is contracted and has sent a PoR request to Norway.

1.9 EMSA circulated the second EMSA incident SITREP, detailing a request for a PoR made to the Norwegian Authorities. The process for uploading information to the SafeSeaNet system was demonstrated, using information from the PoR request template in the OGs. This would be now directly typed out in the appropriate form on-line provided by the system and thereby sent over to the involved SMS as seen fit.

1.10 The International Group of P&I Clubs gave a presentation on the insurance and liability issues relating to an incident such as the one being considered for the TTX. IMO resolution A.949 was devised to balance the needs of the ship and the relevant Coastal State(s) with regard to a PoR situation. Several examples of global PoR incidents were referred to. It was stressed that, barring a breach of the insurance policy (a very rare occurrence) by the ship owner, a vessel's P&I and H&M insurance remains effective throughout the duration of a casualty response, including occasions when measures are taken to facilitate a ship seeking a place of refuge.

1.10.1 With regard to the TTX scenario, it was noted that various international conventions may be applicable:

**1992 Civil Liability Convention** (NCA OIL) – ratified by Norway, Sweden and Denmark.

**2001 Bunkers Convention** (NCA CHEM) – ratified by Norway, Sweden and Denmark.

(EEZ) - some States apply the Convention to their territorial waters and others do not. The definition of ‘wreck’ is broader than just the actual vessel. It includes cargo and anything else falling from the ship.

**2010 HNS Convention** – Not yet in force. Norway is the only state to ratify so far. 10 signatories needed for it to come into force. Extends to EEZ or contiguous zone where applicable (i.e. Malta). Wider ratification of this convention will provide harmonisation between Member States in terms of HNS incidents.

1.10.2 P&I insurance responds to third party liabilities, losses, costs and expenses including actual and potential oil pollution, wreck liabilities and cargo liabilities. Hull & Machinery insurance responds to loss of/damage to property, generally the vessel itself, and costs of measures to avert or minimise the loss, including salvage awards.

1.10.3 In the NCA CHEM scenario, both H&M and P&I insurers should be consulted and informed of the way in which the casualty is managed. H&M insurers would take the lead in salvage matters. P&I would be concerned with potential third party liabilities including personal injury, potential damage caused by a casualty and environmental protection measures.

1.10.4 IG P&I was asked about a shipowner's excess, i.e. the amount that the shipowner would pay before the insurer responds. A simplifying parallel was drawn with the common protocols associated with car insurance: the more risk an owner is prepared to take on themselves, the lower the premiums. However a ship owner should never find themselves reluctant to take any reasonable action to resolve a situation on the grounds of cost exposure since a liability arising under an IMO Convention - e.g. for preventive measures taken to mitigate a bunker oil spill under the Bunker Oil Convention - is covered by a "certificated" risk and the P&I club is liable under the Convention irrespective of the shipowner's excess (deductible). Most owners' deductibles are insignificant in the context of the (potential) third party liabilities arising in a major casualty.

1.10.5 Different States have different limits, depending on the jurisdiction this can significantly impair the process of requesting a PoR. The NCA CHEM was scrutinized throughout the different applicable conventions. For the case at stake the limit from the HNS Convention would be up to 250.000.000 SDR.

1.10.6 EC explained that an inject from the PoR TTX would be given to the CM WS to start
elaborate on this part. The TTX will focus on the operational decisions.

2. FIRST BREAK-OUT SESSION

2.1 The attendees dispersed into 3 pre-determined groups, each including representatives from salvage, class and insurance.

2.2 Facilitators in each group confirmed that the salvors had requested a PoR in Norway. Documents available to each group included:

(a) initial condition and breached condition information.
(b) the insurance certificates of the vessel.
(c) 2nd SITREP incorporating the PoR request to Norway.

In addition, the facilitators displayed some slides on the Norwegian inspection team’s assessment of the vessel (which advised of the risk of a toxic cloud) and a map of the southern Norwegian coastline showing potential PoRs identified in the NO National PoR Plan. Further documents were distributed with assessments on the suitability of 4 Norwegian PoRs under consideration.

2.3 Delegates in each group were asked to collectively act as the Norwegian Competent Authority (CA) and consider the request for a PoR.

2.4 Under the guidance of the facilitators, the Groups reached the conclusion that the response from Norway would be negative on the grounds of the risk to public health caused if a toxic cloud were to develop in the atmosphere.

2.5 The Groups were informed that Sweden, as one of the Supporting Member States (SMSs), had refused a PoR for the same reasons as Norway.
3. SECOND PLENARY SESSION – FEEDBACK FROM GROUPS

3.1 The facilitators were invited to report on the discussions and decisions of their respective groups.

3.2 **Group 1** noted the importance of a single, identified CA for decisions on PoR, avoiding a situation where decisions are made by committee. For a CA, *safety of life takes primacy during any incident at sea* ✓, followed by environmental protection, and thereafter commercial interests. The break-out session brought into focus the fact that there is not always a lot of time to make critical decisions that are based on available information. The CA must be mindful that the decisions he/she makes may *need to be justified within a matter of hours* ✓ to the media and the wider public. It was noted that whilst some Member States are well resourced, others have no resources to carry out an inspection of a vessel to help inform a PoR decision. Following discussions and suggestions which included conducting an at-sea STS transfer and to disperse the cargo in the hope that it would evaporate into the atmosphere, it was finally concluded that Norway could not offer a PoR in the prevailing conditions, due to the risk to public health.

3.2.1 From a salvor’s perspective, *a negative response to a PoR request is far preferable to no response at all* ✓. The OGs are helpful in that if followed correctly, they guide the decision maker to clear alternative pathways if a PoR request cannot be met with a positive response. The importance of the SMS following the situation and all documents using the SSN system, allows for much quicker hand-over to another State in a better position to deal with the ship in need of assistance.

3.3 **Group 2** noted that only 2 of the 4 Norwegian PoR options proposed were in any way viable. Nonetheless, the conclusion was reached that Norway would refuse the request due to the risk to the population posed by the potential toxic cloud in the prevailing weather conditions. The group evaluated the option of a STS to lighten the vessel; however this needed to be made in a sheltered area according to the sea state and also additional fire-fighting equipment to suppress the ammonia cloud would be needed. A possible reduction of ballast to match the draught limitations of ports available was also considered provided that stability is ensured.
3.4 **Group 3** had first established that the vessel’s integrity was stable using the ERS data, which was confirmed by the Norwegian inspection team. Pragmatic discussions followed, balancing the various risks before ultimately refusing a Norwegian PoR. The decision of Norway to refuse, was quickly followed by Sweden’s decision, putting Denmark in the frame as the next viable option for a PoR. The *speed at which this happened demonstrated the importance of both information sharing and the contingency planning of Supporting Member States*. This was emphasised by the salvage representative who noted that *the processes detailed within the OGs mean that a salvor is not starting again from scratch when another Member State is asked for a PoR, following a refusal from a Coordinating Member State.*

3.5 Concluding Day 1, the facilitators highlighted the *importance of transparency and free exchange of information*, not only between Member States, but also with other stakeholders working towards the common goal of finding a satisfactory resolution to the problem. A denial of a PoR – when complemented with previous information exchange and transparent reasoning – facilitates neighbouring States’ (SMS) risk assessment process and eventually their decision to take over the coordination and become in turn CMS.

**DAY 2 – 28 September 2017**

4. **THIRD PLENARY SESSION – DECISION MAKING PROCESS**

4.1 On Day 2, the PoR TTX participants were joined by those attending the concurrent Claims Management Workshop. The Exercise Director recapped on the work covered on Day 1 and confirmed the stage the exercise had reached, with Norway and Sweden having refused a PoR, leaving Denmark as the remaining immediate option.

4.2 The Exercise Director stressed the importance of the financial security aspects being addressed in parallel with the operational incident response, although
the former should never influence the practical efforts to resolve the situation.

4.3 EMSA displayed the updated entry on SSN, showing the record of transfer of coordination of the incident from Norway to Denmark.

4.4 The senior legal advisor at the NCA provided a presentation on claims management and the guidelines that govern the principles of cost recovery in Norway.

4.4.1 It may be preferable for a Member State to have a Letter of Undertaking or a bank guarantee prior to offering a PoR. However, the lack of proof of adequate insurance cannot in itself be sufficient reason to refuse a PoR. This principle is a direct requirement of EU legislation which is reflected in the OGs.

4.4.2 The limits of civil liability of the shipowner (referable, in the NCA CHEM context, to bunker oil pollution damage, preventive measures and to Norway’s reservation to the 96 LLMC until the HNSC enters into force) are higher in Norway than other States. A joint limitation for Norway and Denmark was raised as a suggestion for situations such as the NCA CHEM scenario. As much co-operation as possible between Member States is to be encouraged when dealing with cost recovery claims.

4.4.3 Passage of competence for coordination and transitions may also involve costs for more than one coastal State. Therefore different courts would be competent and different legislations would apply. Such a problem would require a 'federation' for proper solution.

4.5 Gard P&I Club gave a presentation contrasting two incidents; the MIMOSA from 1995 and the MODERN EXPRESS from 2016 emphasising the point that security already in place through Blue Cards, gives right of direct action against the insurer under the conventions.
4.5.1 The MIMOSA was a large oil tanker carrying 330K MT of crude oil to the USA from Sullom Voe, Shetland. About 80 miles west of the Isle of Lewis she suffered cracking in her forepeak, resulting in the loss of plating below the waterline. Having been made aware of the situation, the UK authority of the time, the Marine Pollution Control Unit, agreed that the vessel could carry out a ship to ship transfer of her cargo into three receiving smaller tankers in Lyme Bay off the South coast of England. *No financial guarantee was demanded nor given and the claim was subsequently settled.* This is an example of a pro-active approach from a Coastal State in recognising that refusing a PoR would have run the serious risk of an environmental disaster, had the vessel continued her passage across the Atlantic.

4.5.2 The MODERN EXPRESS is a car carrier that took on a severe list during a storm at sea in the Bay of Biscay, January 2016. This was the first major incident to test the procedures contained within the then recently published OGs. France and Spain were both approached for a PoR. France refused, but Spain agreed that she could be taken in to the port of Bilbao for stabilisation work. *Although the offer of a PoR from Spain was conditional on a very high value LOU (25M euro), no subsequent claim was made by the Spanish authorities.* The acceptance of an LOU saved significant time over arranging a bank guarantee.

4.5.3 Gard P&I Club support the principles and procedures within the OGs and would like all Member States to apply them consistently and for them to be adopted more widely in other parts of the world. *P&I clubs are very much part of the solution to a shipping incident* and are keen to work with Governmental authorities to find remedies.

4.6 EC emphasised that, in accordance with the OGs, *all Supporting Member States* who may be asked to take over coordination of an incident should start planning in parallel with the initial Coordinating Member State. The OGs are clear that commercial or financial reasons should not be a reason for refusal of a PoR, nor should these issues be a main driver in decision making.
4.6.1 EC addressed a set of injects to the Claims Management WG not to come up with answers forthwith, but to start discussions and elaborate on the issues involved within next joint sessions in the context of the PoR Cooperation Group.

4.6.2. The possible differences in terms of shipowners' liability need to be addressed where, in a scenario like the one at hand, it is assumed that all relevant Conventions (92 CLC, 2001 Bunker Oil Convention, 2007 Wreck Removal Convention (and presuming that the 2010 HNS Convention is in force) are fully implemented and in force in one MS, but not in the other.

4.6.3. Thereon followed sub-injects to the legal setup for further joint elaboration in the context of this WGs' joint venture, i.e.:
- the possible benefits and respective reasons for a harmonized adoption of international instruments by the countries involved in the coordination handover;
- the role played by different limits of liability, where applicable, in the decision to offer a place of refuge;
- the relevance of a Letter of Undertaking (LOU) from the P&I club which is issued only in respect of liabilities that are not already covered by Certificates provided in respect of the aforementioned IMO Conventions;
- the LOU 'validity' also for a beneficiary in another MS in case of hand over and if not what needs to happen for an LOU to be issued to a named entity in another MS (assuming that one in the scenario wants one) and to what extent that would depend on the situation in the 'receiving' country as to the conventions in force in their jurisdiction (coverage);
- the effects in this scenario if the receiving MS asked for an 'open ended' LOU in respect of liabilities that are not covered by the applicable IMO Conventions, which is then declined by the P&I insurer who instead offers a fixed, agreed sum;
- the role played by the existence of a form of State Guarantee in the receiving MS.
5. SECOND BREAK-OUT SESSION

5.1 The attendees again split into the 3 smaller break-out groups to consider the options for the vessel, now that coordination had been passed from Norway to Denmark. A third SITREP was circulated with this information. The Danish authorities narrowed the PoR options to two potential locations; an anchorage at Aalbaek Bight and the port of Hirtshals.

5.2 It was confirmed that no new formal PoR request to Denmark was required from the salvor, as all relevant information had been updated on SSN. An LOU was requested by Denmark.

5.3 The claims WS worked in parallel on the inject provided by the Plenary.

6. FOURTH PLENARY SESSION

6.1 Group 1 spent some time pondering where the financial liabilities would lie if the tankers at the Aalbaek Bight anchorage would need to interrupt their STS activities to allow the NCA CHEM to be taken there. While the cost of taking the vessel to an anchorage is borne by the vessel owner first and foremost this being a matter for the owner and the H&M insurers, IG P&I advised that the P&I club would then assess any consequential claims from third parties. A facilitator in Group 1, said that the accepting State would not expect to pick up these costs and any such claims would have difficulty in succeeding if the vessel was taken to the anchorage under Direction from the CA. If Denmark were to ultimately refuse a PoR, wider options, such as the UK would need to be considered by all parties, not just the salvor. It was noted that, in reality, the transfer of coordination process would take longer than the TTX scenario suggested. On Denmark deciding on the anchorage as a PoR, all Supporting Member States would need to agree a passage plan.
6.2 **Group 2** decided that the anchorage was the most suitable PoR with an inspection of the vessel carried out before the Danish authorities would approve an STS operation. A safety zone would need to be implemented around the vessel to reduce vessel traffic in the area. Denmark would then upload a SITREP to SSN to confirm their acceptance of the vessel at a PoR – in this case an anchorage in sheltered waters. The HELCOM manual was highlighted as another potential source of information on the chemicals and the behaviour of the potential gas cloud.

6.3 **Group 3** highlighted the importance of daily meetings between the parties as misunderstandings and lack of communication would hinder the process of transferring coordination and considering a PoR in Denmark. Norway would need to be kept up to date once the vessel left Norwegian waters. Group 3 also concluded that the anchorage was the best option. Once the cargo tank was able to be stabilised and discharged, the situation would be reassessed with a view to taking her into a port.

### 7. Exercise Conclusions

#### 7.1 About the Setup

7.1.1 The 3rd PoR TTX was again a very worthwhile event which demonstrated that, following the amendments made to the OGS after the 2015 TTX in Malta (on ERS, CHD, MAR-ICE/MAR-CIS, CAs list), Member States now have a robust and workable set of guidelines to use when a PoR situation arise. From the active participation demonstrated, delegates and industry representatives showed a commitment to making the OGS the standard practice that all Member States should follow. The more that Competent Authorities are familiar with the OGS, the more effective they will be when called upon to act as either a CMS or a SMS.
7.1.2 All players’ stances involved in the decision-making process were compared within Plenaries allowing for essential pieces of information to be shared. In real cases the changing scenario would suggest adopting a dynamic approach.

7.1.3 The Integrated Maritime Services of the EU Maritime Information Exchange System proved to be a comprehensive platform. Consideration should be given to allowing the involved stakeholders some form of access to – and feeding information into – the system as well (e.g. SITREP).

7.1.4 The break-out groups' task was to assess the possible options for the best course of action through the analysis of all available pieces of information to finally share their respective decisions in Plenaries.

7.1.5 It was ensured, as required in the aftermath of the TTX in Malta, that industry representatives (Salvors, Classification Societies and Insurance) were in each of the break-out groups to interplay with their counterparties as in a real scenario with Member State representatives from the National Competent Authorities entitled to make independent decisions in accordance with the regulatory framework (Directive 2002/59/EC).

7.1.6 Joint session with the Claims Management and their legal insight is a promising pathway to provide a balanced cross-fertilizing setup discussing procedures for liability, financial security and cost recovery handling.

### 7.2 ABOUT THE DECISION MAKING PROCESS

7.2.1 The exercise served as an ideal forum to raise awareness of the many useful tools available to decision makers to assist them. Use of these tools is crucial for robust, informed decision making that will stand up to challenge from the media and wider stakeholders. Exercises such as these provide an ideal platform in a ‘no risk’ environment for all participants to think about their particular role in a PoR incident and to be reminded of the many factors involved in bringing such an incident to a satisfactory conclusion.

7.2.2 The OGs were closely followed throughout the exercise and feedback from all delegates and stakeholders was supportive of what the document sets out to achieve and of the format in which they are framed.
7.2.3 The Integrated maritime system and services (in the Union Maritime Information and Exchange System) was used ‘live’ providing all relevant maritime situational information, including weather forecast and drift models as well as continued updating on the operational circumstances. It effectively addresses the need for correct and timely information within one system to enable much better (and quicker) decision making.

7.2.4 It showed that the exchange of information necessary to ease the entire coordination process can be carried out on one EU platform where information is either already available or can be collected in real time avoiding duplication of time-consuming activities to collect correct and timely information thus enabling much better (and quicker) decision making.

7.2.5 Based on the scenario a real risk assessment was carried out involving the lead State (NO) and all concerned supporting MS (SE, DK) together with industry.

7.2.6 It was concluded that in scenarios dealing with the situation where toxic clouds/fire may cause severe danger, depending on the prevailing circumstances, *the best course of action is not always to take the stricken vessel to a port*, illustrating that *a place of refuge does not always mean port of refuge*, but can be a sheltered area at sea.

7.2.7 Whereby a coordinated approach is performed at a regional level, the idea of placing multiple PoR requests in parallel, when a number of adjacent coastal States may be progressively concerned by an incident, no longer seems an issue. However, the possibility of divergent stances in each MS about their ratification of Conventions on liability matters as well as their different limitation regimes can still cause risks for ‘forum shopping’.

7.2.8 The set of open questions posed by the operational side to the Claims Management WG as injects for further elaboration demonstrate the need to reach some operational conclusion facilitating standardized approaches to liability and cost recovery. The PoR CG should provide an opportunity for the CM WG to report on initial considerations/conclusions.
8. OUTPUT AND RECOMMENDATIONS

8.1. OPERATIONAL

8.1.1 The TTX again illustrated the importance of States and industry to communicate, cooperate and coordinate to be able to accommodate ships in need of assistance in a place of refuge. Mindsets are changing so that 'rejection' no longer is the end of the process at national level, but a hand-over to a neighbouring state, in the interest of overall safety and in mitigation of any type of pollution whether at the sea or in the air.

8.1.2 A coordinated approach in managing PoR requests is the solution towards which all efforts are to be made. All neighbouring coastal states may always be involved *nolens volens* since risks can abruptly revolve to the jurisdiction of another NCA (e.g., wind direction change, etc ...). The passage plan entails "cross-border coordinated decisions" agreed and taken on in spite of specific challenges impinging on one single NCA. The overall risk is always a common challenge that needs to be addressed within a mindset where each NCA put themselves 'in one another’s shoes' and shares the endeavour. In such a framework the passage plan for possible handover should always be the most valuable ready alternative.

8.1.3 It was discussed whether tools such as *MAR-CIS* and *MAR-ICE* and the digital PoR SITREP that are currently accessible to Member States only, should be made available to controlled wider groups, such as the salvage industry. It was suggested that such a step could be mutually beneficial. Salvage industry invited to explore how access to the EMSA tools can be provided to a contracted salvor involved in a shipping incident and potentially to the salvors themselves to be able to feed useful information into the system.

8.1.4 It should not be assumed that a port is always the requirement for a PoR request. Sometimes an anchorage in sheltered waters is the most appropriate option. The exercise highlighted that in cases dealing with toxic clouds/fire, depending on the prevailing circumstances, *the best course of action is not always to take the stricken vessel to a port*, illustrating that a place of refuge does not always mean port of refuge, but can be a sheltered area at sea.

8.1.5 Insurance encourages *Class ERS to fully cooperate with the Authorities*. IACS Recommendation 145 May 2016 is a helpful instrument to meet this need.

8.1.6 A joint liability limitation was raised as a suggestion for situations such as the NCA CHEM scenario. *Ratification of international conventions* would be a part of the solution.
8.1.7 All Supporting Member States who may be asked to take over coordination of an incident should *start planning in parallel* with the initial Coordinating Member State.

8.1.8 The scenario which was taken into consideration added more complexity to the ones used in previous TTX. A *gradual additional intricacy or escalating situation might be foreseen for the next biennial TTX*. Cases where box-ships are involved were spotlighted. They are considered an outstanding issue whereas they carry wide range of HNS which are seldom fully known.

8.1.9 As was the case with this exercise involving Norway, *future TTX* should not preclude the *involvement of non-Member Coastal European States and even outside Europe*, in the frame of regional cooperation programmes, given that it is an established aspiration to extend the principles of the OGs beyond EU jurisdiction.

8.1.10 A certain *training need on the guidelines* became apparent. A set of training courses for practise on the use of the OGs is still considered of the utmost importance.

8.1.11 *OGs international uptake at IMO level* is also deemed a goal. A representative from the IMO Secretariat participating was positive to such a development, building on TTX and testing resulting in the EU OGs already demonstrating to be a very effective instrument in practice (as the Modern Express case showed).

8.1.12 A *joint forward-thinking effort along with the Claims Management WG* should look into legal issues of liability, financial security and cost recovery that are always implied in the operational decision making process, especially for any possible situation not covered by the existing liability conventions. That is particularly true for the possible differences in terms of liability coverage in a situation where not all parties have ratified all relevant Conventions and fully implemented them. In this context the HNS convention was particularly highlighted.
8.2 OGs POSSIBLE AREAS FOR FURTHER IMPROVEMENTS/ADJUSTMENTS

8.2.1 The fact that the exercise raised no obvious shortcomings with the current version of the OGs, is testament to the work put in following the Malta TTX to fine tune the original draft document. However, in a changing maritime environment it is important to remain vigilant to ensure that the OGs remain up-to-date and fit for purpose. By and large the Guidelines and the new features proved to work, but some areas where further clarification would be beneficial to this living document were usefully identified for the further improving the current version.

8.2.2 The TTX illustrated how all States and industry involved need to cooperate and coordinate in order to accommodate in a place of refuge a ship in need of assistance and that mind-sets are changing so that 'rejection' no longer is the end of the handling, but the handover to a neighbouring state, in the interest of safety and for mitigation of any type of pollution whether in the sea or in the air. However, the Guidelines are configured in such a way that a single sequential PoR request is encouraged. This might need a reflection for adjusting the OGs accordingly.

8.2.3 A more user friendly flow chart was suggested. Raised by participants who were not NCA’s representatives.

8.2.4 The fact that no formal PoR request to the incoming CMS was required from the salvor, as all relevant information had been updated on SSN, triggers a reflection on a gradual replacement in the OGs of the need to address individual requests. Indeed, planned coordinated handover and the transparent exchange of information on respective operational constraints as well as the reasoning against a PoR refusal can formally make useless the repetition of such requests. A CMS becomes SMS, but in its turn can be CMS again, should the weather or other conditions suddenly change.
8.3 TTX DYNAMICS – PROGRESSING, MANAGEMENT AND METHOD

8.3.1 In terms of the planning and execution of the TTX itself, it proved to be fit for purpose matching participants' expectations.

8.3.2 Use of digital tools and availability of documents (OGs, Maps, Communication forms) and services (weather forecast, vessel tracking, satellite imagery, databases) on big screen made the scenario realistic in the Plenary and in break-out groups fostering a proactive participation.

8.3.3 However, it was apparent that some of the delegates attending were not the actual designated PoR Competent Authority for their State. It was felt that future events should better target the actual decision makers from Member States in order to maximise the benefits of the exercises and to add authenticity to the considerations and subsequent decisions taken.

8.3.4 A specialized participation was advocated. Heterogeneous, cross-sectorial participation is welcomed, it was however recommended that at least one representative from the PoR NCA/decision making independent authority (designated pursuant to art.20 VTMIS Directive) from each MS should partake in the TTX. This would permit to focus on issues under development within the PoR CG rather than retracing the grassroots of the entire process.

8.3.5 In terms of exercise dynamics, it was put forward that a set of specific questions, to be addressed during the TTX, should be circulated ahead of the meeting together with the scenario. Participants from the NCAs would be involved on specificity well in advance with enough time to focus and elaborate on possible needs for clarity, suggestions and ideas to bring into the discussion. That would also facilitate going straight to the point during the meeting.

8.3.6 WSs in parallel and their joint sessions added value to TTX. This, as well as subsequent sub-events, should be considered again.
9. CLOSING REMARKS AND ACKNOWLEDGEMENTS

9.1 The Exercise Director thanked the EC/EMSA and all of the participants for the opportunity to host the TTX in Norway. The exercise addressed common challenges and highlighted the information tools available to Member States. During a PoR incident, information must be shared between all parties involved, in a spirit of transparency, to bring about a swift and safe resolution. There is still progress to be made in harmonisation of approach between European Coastal States, but events such as this TTX help to achieve this.

9.2 EMSA thanked all attendees, and thanked the planning team for developing a challenging and credible scenario.

9.3 The Norwegian Coastal Administration shall be extended full credit and congratulations for excellent hosts and overall excellent arrangements ensuring efficient participation and execution, as well as much appreciated social events.
ANNEX I – Planning Team and List of Participants

EXERCISE MANAGEMENT AND PLANNING TEAM

<table>
<thead>
<tr>
<th>Name</th>
<th>Nationality</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kjetil Aasebø</td>
<td>Norway</td>
<td>Exercise Director</td>
</tr>
<tr>
<td></td>
<td></td>
<td>+ Facilitator group 3</td>
</tr>
<tr>
<td>Hugh Shaw</td>
<td>UK</td>
<td>Facilitator group 1</td>
</tr>
<tr>
<td>Kjeld Gaard-Frederiksen</td>
<td>Denmark</td>
<td>Facilitator group 1</td>
</tr>
<tr>
<td>Ronnie Hansèn</td>
<td>Sweden</td>
<td>Facilitator group 2</td>
</tr>
<tr>
<td>Thomas Åstrøm</td>
<td>Sweden</td>
<td>Facilitator group 2</td>
</tr>
<tr>
<td>Richard Gabriele</td>
<td>Malta</td>
<td>Facilitator group 3</td>
</tr>
<tr>
<td>Sandro Nuccio</td>
<td>European Commission</td>
<td>Final report</td>
</tr>
<tr>
<td>Dominic Stevens</td>
<td>UK</td>
<td>Final report</td>
</tr>
<tr>
<td>David Bolomini</td>
<td>IG P&amp;I</td>
<td>Insurance</td>
</tr>
<tr>
<td>Jason Bennett</td>
<td>ISU</td>
<td>Salvage</td>
</tr>
<tr>
<td>Oyvind Traethaug</td>
<td>DNV GL</td>
<td>Class</td>
</tr>
<tr>
<td>Mario Mifsud</td>
<td>EMSA</td>
<td>Support</td>
</tr>
<tr>
<td>Malgorzata Nesterowicz</td>
<td>EMSA</td>
<td>Support</td>
</tr>
</tbody>
</table>
### LIST OF PARTICIPANTS

<table>
<thead>
<tr>
<th></th>
<th><strong>Group 1</strong></th>
<th><strong>Group 2</strong></th>
<th><strong>Group 3</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilitator</td>
<td>Hugh Shaw</td>
<td>Ronnie Hansen</td>
<td>Kjetil Aasebo</td>
</tr>
<tr>
<td>Facilitator</td>
<td>Kjeld Gaard-Fredriksen</td>
<td>Tomas Astrom</td>
<td>Richard Gabriele</td>
</tr>
<tr>
<td>MS</td>
<td>Johannes Holm Iversen, DK</td>
<td>Jimmy Soerensen DK</td>
<td></td>
</tr>
<tr>
<td>MS</td>
<td>Thomas Erlund FI</td>
<td>Georgi Stoyanov BUL</td>
<td></td>
</tr>
<tr>
<td>MS</td>
<td>Aurelio Cagliore IT</td>
<td>Denis Bickovs LV</td>
<td>Paulius Matvejevas LT</td>
</tr>
<tr>
<td>MS</td>
<td>Tor Inge Miljeteig NO Coastal Administration</td>
<td>Hans Peter Mortensholm NO Coastal Administration</td>
<td>Mevric Zammit MT</td>
</tr>
<tr>
<td>MS</td>
<td>Dominic Stevens UK</td>
<td>Anett Nyberg Kristensen NO Accident Investigation</td>
<td>Arne Jorgensen NO Accident Investigation</td>
</tr>
<tr>
<td>MS</td>
<td>Andrzej Kalata PL</td>
<td>Sjon Huisman NL</td>
<td>Mats Kannerstal SE</td>
</tr>
<tr>
<td>MS</td>
<td>Benito Nunez ES</td>
<td>Dari Talja FI</td>
<td>Melaine Loarer FR</td>
</tr>
<tr>
<td>Salvage</td>
<td>Jason Bennet</td>
<td>Leendert Muller</td>
<td>Lars Tesmar</td>
</tr>
<tr>
<td>Class</td>
<td>Oyvind Traethaug</td>
<td>Izidor Badurina</td>
<td>Yury Ilchenko</td>
</tr>
<tr>
<td>Insurance</td>
<td>David Bolomini</td>
<td>Andreas Ogrey</td>
<td>Nick Platt</td>
</tr>
<tr>
<td>Insurance</td>
<td></td>
<td>Helle Hammer</td>
<td>Klaus Værnø</td>
</tr>
<tr>
<td>IMO</td>
<td>Sasha Pristrom</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EFCA</td>
<td>Marietta Asik</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC</td>
<td>Jacob Terling</td>
<td>Sandro Nuccio</td>
<td>Mario Mifsud</td>
</tr>
<tr>
<td>EMSA</td>
<td>Jaime Mayordomo</td>
<td>Sofia Catarino</td>
<td>Malgorzata Nesterowicz</td>
</tr>
</tbody>
</table>

---

European Maritime Safety Agency (EMSA)_3rd PoR TTX report 2017 DS_DRAFT#001
ANNEX II - Exercise area and scenario

SCENARIO

Two ships collided; an Oil Tanker and a Liquefied Gas Carrier in the Skagerrak Strait, 12 nm from the Norwegian coastline (see Figure below).

Figure 1 – Location of the collision site.
Scenario options for the PoR ttx

- NO authorities notifies neighbouring countries about the incident. Following a request for international assistance through CECIS and according to regional agreements.

- The Liquefied Gas Carrier is instructed to go to the Yara terminal, Porsgrunn, Norway, 25 nm from the collision site for hull inspection (on its own propulsion);
- At 10 nautical miles to the destination, the crew detected an ammonia odour;
- Emergency authorities gave orders for the ship to stop immediately;
- During visual inspection, the crew detected a small leak from tank number 1 (participants have to identify the substance from the cargo manifest, ammonia anhydrous);
- Ammonia may leak to water, releasing energy (exothermic reaction). It is a marine pollutant. There are some fish farms nearby;
- Two crew members suffered injuries from inhaling ammonia. First aid measures were given to the two crew members but they need to be transported to hospital;
- Danger of toxic vapour cloud formation, putting at risk the health and safety of the population (see Ammonia main hazards below);
- According to the weather forecast, during the next 2 days the wind is expected to blow from SW reaching 10 knots. Based on modelling results with these conditions the ammonia toxic vapour cloud may reach the harbour areas of Larvik and Nevlunghavn within 24 hours;
- The ship is asked to move away from shore;
- The ship master cannot restart the engines;
- Auxiliary engines and all backup systems are not working;
- As a consequence, the re-liquefaction plant stopped working;
- The temperature may increase: safety relieve valves will open to reduce pressure inside the tanks and as a consequence more substance may be released to the atmosphere;
- The crew detected that the tank transporting LPG has been compromised (thermal insulation is damaged) due the ammonia leak. There is danger of explosion;
- SAR teams need to approach the vessel to transport the crewmembers injured to the nearest hospital. However, there is a risk of explosion due to the LPG leak. The emergency teams cannot approach the ship. Specialised vessel is needed or helicopter is needed.
# ANNEX III – Injects/order of events

<table>
<thead>
<tr>
<th>Item</th>
<th>Refers to the Guidelines</th>
<th>Responsible person</th>
<th>when</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>State of play: incident, weather conditions, geographical conditions, details of the chemical carrier, flag, past inspections, crew, cargo Ship’s detail, cargo and voyage shown in SEG</strong></td>
<td>Chapter 2: Initial incident reporting, monitoring and information gathering</td>
<td><strong>Kjetil Aasebø (with Jaime Mayordomo from EMSA re SEG)</strong></td>
<td>Plenary 1</td>
</tr>
<tr>
<td>SITREP in SSN</td>
<td>Chapter 2</td>
<td><strong>Jaime Mayordomo EMSA</strong></td>
<td>Plenary 1 (+updated SITREPS in the following break-out groups)</td>
</tr>
<tr>
<td>MAR-CIS information on ammonia</td>
<td>Chapter 2</td>
<td><strong>Sofia Catarino EMSA</strong></td>
<td>Plenary 1</td>
</tr>
<tr>
<td>Requesting information from MAR-ICE</td>
<td>Chapter 4: Requesting a place of Refuge</td>
<td><strong>Sofia Catarino EMSA</strong></td>
<td>Plenary 1</td>
</tr>
<tr>
<td>Presentation of the Emergency Response Service by Class</td>
<td>Chapter 4</td>
<td><strong>Øyvind Traethaug, DNV GL</strong></td>
<td>Plenary 1</td>
</tr>
<tr>
<td>Input from salvors (information that the salvors have been contracted by the shipowner and presentation of the salvage plan)</td>
<td>Chapter 4</td>
<td><strong>Jason Bennett, Arendt</strong></td>
<td>Plenary 1</td>
</tr>
<tr>
<td>Input from the Insurance</td>
<td>Chapter 7: Financial Security</td>
<td><strong>David Bolomini, IG P&amp;I</strong></td>
<td>Plenary 1</td>
</tr>
<tr>
<td>Requesting a place of refuge</td>
<td>Chapter 4</td>
<td><strong>Facilitator of each group</strong></td>
<td>Beginning of 1st break-out groups This information has to be passed to each group as the introduction to the discussion</td>
</tr>
<tr>
<td>Item</td>
<td>Refers to the Guidelines</td>
<td>Responsible person</td>
<td>when</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------</td>
<td>------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Inject on the inspection</td>
<td>Chapter 5: Risk Assessment and Inspection</td>
<td>Kjetil Aasebø</td>
<td>inject to distribute in the 1st break-out groups</td>
</tr>
<tr>
<td>Presentation of coastline and economic/social/environmental conditions NORWAY Inject re Norwegian places of refuge that will lead to the conclusion that there is no suitable one</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blue Card</td>
<td>Chapter 7: Financial Security</td>
<td>David Bolomini, IG P&amp;I</td>
<td>inject to distribute in the 1st break-out groups</td>
</tr>
<tr>
<td>Second salvage plan due to the change of circumstances</td>
<td>Chapter 4: Requesting a place of Refuge</td>
<td>Jason Bennett, ISU</td>
<td>inject to distribute in the 1st break-out groups</td>
</tr>
<tr>
<td>Final document of the group:</td>
<td>Chapter 3: Places of Refuge Coordination</td>
<td>Kjetil Aasebø</td>
<td>inject to distribute in 1st break-out groups, at the end</td>
</tr>
<tr>
<td>NO rejects the PoR request The document contains an extract of assessment and explanation why Norway cannot receive the ship Information sharing between NO, DK and SWE Passing of coordination of the incident to DK</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Summing up of the discussions</td>
<td></td>
<td>Facilitators/rapporteurs of each group</td>
<td>Plenary 2</td>
</tr>
<tr>
<td>Summary of the previous day and state-of-play</td>
<td></td>
<td>Kjetil Aasebø</td>
<td>Plenary 3</td>
</tr>
<tr>
<td>Presentation on claims management</td>
<td>Chapter 7</td>
<td>Lill Veronika Benjaminsen NCA</td>
<td>Plenary 3</td>
</tr>
<tr>
<td>Inject to the Claims WS</td>
<td></td>
<td>Jacob Terling</td>
<td>Plenary 3</td>
</tr>
<tr>
<td>Item</td>
<td>Refers to the Guidelines</td>
<td>Responsible person</td>
<td>when</td>
</tr>
<tr>
<td>---------------------------------------------------------------------</td>
<td>--------------------------</td>
<td>--------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>Presentation on handling claims in Modern Express case</td>
<td>Chapter 7</td>
<td>Nick Platt GARD</td>
<td>Plenary 3</td>
</tr>
<tr>
<td>Presentation of coastline and economic/social/environmental conditions: an inject re Danish places of refuge that will lead to the conclusion that there is one suitable one</td>
<td>Chapter 6: Decision making and outcomes</td>
<td>Kjeld Aasebø</td>
<td>inject to distribute in the 2nd break-out groups</td>
</tr>
<tr>
<td>SITREP on SSN</td>
<td>Chapter 2</td>
<td>Jaime Mayordomo EMSA</td>
<td>Plenary 4</td>
</tr>
<tr>
<td>Summing up of the discussions</td>
<td></td>
<td>Facilitators/rapporteurs of each group</td>
<td>Plenary 4</td>
</tr>
<tr>
<td>Hot wrap-up</td>
<td></td>
<td>Kjetil Aasebø</td>
<td>Plenary 4</td>
</tr>
</tbody>
</table>
# ANNEX IV – Exercise agenda

## Agenda: TTX on Places of Refuge

**Horten - Sjomilitaere Samfund, 27 September 2017 & 28 September 2017**

### Wednesday, 27 September 2017

<table>
<thead>
<tr>
<th>Time</th>
<th>Agenda Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 – 12:30</td>
<td>1st Plenary session: Information gathering</td>
</tr>
<tr>
<td>9:00 - 9:20</td>
<td>ITEM 1: Presenting the situation (Kjetil Aasebo, Director of the Exercise)</td>
</tr>
<tr>
<td>9:20 – 9:30</td>
<td>ITEM 2: Challenges of HNS response (Sofia Catarino, EMSA)</td>
</tr>
<tr>
<td>9:30 - 9:50</td>
<td>ITEM 3: Introducing status report in SSN (Jaime Mayordomo, EMSA)</td>
</tr>
<tr>
<td>9:50 - 10:10</td>
<td>ITEM 4: MAR-ICE (Sofia Catarino, EMSA)</td>
</tr>
<tr>
<td>10:10 - 10:30</td>
<td>ITEM 5: MAR-CIS (Sofia Catarino, EMSA)</td>
</tr>
<tr>
<td>10:30 - 11:00</td>
<td>ITEM 6: Classification society – Emergency Response Service (Øyvind Traethaug, DNV GL)</td>
</tr>
<tr>
<td>11:00 - 11:30</td>
<td>Coffee break</td>
</tr>
<tr>
<td>11:30 - 12:00</td>
<td>ITEM 7: Salvage – (Jason Bennett, Arendt)</td>
</tr>
<tr>
<td>12:00 - 12:30</td>
<td>ITEM 8: Insurance (David Bolomini, IG P&amp;I)</td>
</tr>
<tr>
<td>12:30 – 13:30</td>
<td>lunch</td>
</tr>
<tr>
<td>13:30 – 16:00</td>
<td>Break-out groups</td>
</tr>
<tr>
<td></td>
<td>Coffee break 14:30-15:00</td>
</tr>
<tr>
<td>16:00 – 17:00</td>
<td>2nd Plenary session</td>
</tr>
<tr>
<td></td>
<td>Compare results from break-out groups (facilitators)</td>
</tr>
<tr>
<td>20:00</td>
<td>Dinner reception hosted by the Norwegian Coastal Administration at Sjoemilitaere Samfund</td>
</tr>
</tbody>
</table>
### Thursday, 28 September 2017

<table>
<thead>
<tr>
<th>Time</th>
<th>Agenda Item</th>
</tr>
</thead>
</table>
| 9:00-10:30 | 3<sup>rd</sup> Plenary session  
**Decision making process**                                       |
| 9:00-9:30 | ITEM 1 - Summary of the previous day and state of play (Kjetil Aasebo)      |
| 9:30-10:00| ITEM 2 – Presentation on claims management (Lill Veronika Benjaminsen,  
Norwegian Coastal Administration)                                     |
| 10:00-10:20| ITEM 3 – Insurance: presentation by on Modern Express (Nick Platt, Gard)    |
| 10:20-10:35| ITEM 4 – Inject to the Claims WS  (Jacob Terling, European Commission)     |
| 10:35-11:00| *Coffee break*                                                              |
| 11:00-12:00| Decision making process in break-out groups                                |
| 12:00-12:45| 4<sup>th</sup> Plenary session  
Compare results from break-out groups (facilitators)  
Wrap-up and conclusions (Kjetil Aasebo) |