



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

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

REMPEC/WG.45/12/3
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Agenda Item 12

DRAFT OUTLINE OF THE JOINT INTER-REGIONAL HNS RESPONSE MANUAL

**Report of the Joint Inter-Regional HNS Response Manual Preparatory Meeting between Cedre,
ISPRA and ITOPF**

**Note by Centre of Documentation, Research and Experimentation on Accidental Water Pollution
(Cedre)**

SUMMARY

Executive Summary: This document reports the main outcome of the Joint Inter-Regional HNS Response Manual Preparatory Meeting between Cedre, ISPRA and ITOPF (ITOPF, London, UK, 18 April 2019) addressing the definition of the methodology, the main features, the programme for the preparation and a draft outline of the manual.

Action to be taken: Paragraph 21

Related documents: REMPEC/WG.45/12/1

Introduction

1 In the context of the Work Package 3 of the Western Mediterranean Region Marine Oil & Hazardous and Noxious Substances (HNS) Pollution Cooperation (West MOPoCo) related to the preparation of the Joint Inter-regional Response Manual for HNS Spills, a meeting was held at the ITOPF Ltd offices on 18 April 2019 with representative of ITOPF, the Centre of Documentation, Research and Experimentation on Accidental Water Pollution (Cedre) and the “Istituto Superiore per la Protezione e la Ricerca Ambientale” (ISPRA).

2 The aim of the meeting was to kick start the Work Package 3 (WP3) of the West MOPoCo project to define the methodology and working programme for the preparation of the manual as well as to have a first discussion on its structure. Main outcomes from this meeting are presented in this report.

Context and methodology

Context and background

3 Recently, international meetings or events listed below addressed issues related to the development of systems to prepare and respond effectively to HNS spills in the marine environment. The development of an operational manual appears to be required and would serve as useful tool, especially for countries planning to build a national framework that would provide a foundation for the ratification process of the Protocol on Preparedness, Response and Co-operation to pollution Incidents by Hazardous and Noxious Substances (OPRC-HNS Protocol).

- .1 The need to update the guidelines and manuals related to HNS spill response produced at different Regional Seas (Baltic Sea, North Sea and Mediterranean Sea) was expressed during the **Thirteenth Inter-Secretariat Meeting between Regional Agreement Secretariats, DG ECHO and EMSA** (Lisbon, Portugal, 16 February 2017);
- .2 The **Twelfth Meeting of the Focal Points of REMPEC** (St. Julian's, Malta, 23-25 May 2017) formally requested the OPRC-HNS Correspondence Group established under the Mediterranean Technical Working Group (MTWG) to contribute to a joint inter-regional effort aiming at updating response manuals for HNS spills considering the latest developments in the field of response to chemical spills, through the possible production of a joint manual based on existing guides and tools on HNS response;
- .3 REMPEC, the Secretariat of the Baltic Marine Environment Protection Commission (HELCOM), and the Secretariat of the Agreement for cooperation in dealing with pollution of the North Sea by oil and other harmful substances (Bonn Agreement) agreed to develop in a coordinated manner an Interregional HNS Response Manual with no regional specificities based on existing regional, European and international manuals and tools. This was further discussed during the **Regional workshop on response to spill incidents involving Hazardous and Noxious Substances (HNS) (MEDEXPOL 2018)** (Valletta, Malta, 20-21 June 2018); and
- .4 During the **74th session of the Marine Environment Protection Committee (MEPC 74)** (London, UK, 13-17 May 2019), the Committee was invited by Turkey to consider the development of an operational guide on the response to spills of HNS in the marine environment. This manual could be included in the 2020-2021 biennial agenda of MEPC, assigning the Sub-Committee on Pollution Prevention and Response (PPR) as the associated organ.

Existing guides

4 A comparative analysis of HNS supporting tools for decision-making was initiated in the context of MEDEXPOL 2018. The main output was a table summing up the comparative analysis which was presented during this Workshop.

5 During the Joint Inter-Regional HNS Response Manual Preparatory Meeting between Cedre, ISPRA and ITOPF, this table was updated with additional contribution from the project partners, including a revised list of sources of information and comments on notable outcomes and opportunities for improvements for the planning and response as well as the impact assessment. The updated table is reproduced in **Annex I** to the present document.

Methodology to prepare the interregional HNS response manual

6 The Joint Inter-Regional HNS Response Manual Preparatory Meeting stated that the main contributors for the drafting of the Manual (i.e. Cedre, ITOPF and ISPRA) will work in collaboration, optimising their respective experiences and knowledge, in order to produce a user-friendly manual, adaptable to different regional specificities, containing relevant and updated technical issues.

7 Considering, that the Manual is being prepared within the framework of the West MOPoCo, involving REMPEC, HELCOM and the Bonn Agreement, which jointly recognise the need for such manual, the Joint Inter-Regional HNS Response Manual Preparatory Meeting recognised that

potential valuable input from the relevant coastal States from the Baltic Sea, the North Sea and the Mediterranean Sea.

8 Moreover it was also proposed to involve other entities that could bring specific knowledge and skills related to the management of the HNS response. The following non-exhaustive list of organisations were identified as potential contributors to reinforce specific aspects of the Manual:

- .1 The European Maritime Safety Agency,
- .2 The International Group of P&I Clubs,
- .3 Private industry: Total, Shell, and
- .4 Firefighters: French division (i.e. « Centre de formation international dédié au risque fluvial et à l'incendie - CRERF » and « Service Départemental d'Incendie et de Secours du Bas-Rhin (SDIS) »).

Manual features

9 The main features of the future HNS manual were discussed during the meeting and the following proposed points were agreed upon, noting that any input or comments from governments and partners would be welcomed to improve the HNS manual content or make it more user-friendly.

Scope of the manual

10 A reminder of the **definition of HNS** is essential. To this purpose, both definitions from the International Convention on Oil Pollution Preparedness, Response and Co-operation, 1990 (OPRC Convention) and the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, 1996 (HNS Convention), will be reminded.

11 To cover a wider range of situations related to substances spilled at sea, **the domain of the manual** will not be strictly limited to the dangerous goods as described by the definition of the OPRC Convention.

12 The **geographical domain** of the guide will be limited to response at sea. It will include harbours but will exclude inland waters and mangroves. It is important to highlight that low salinity marine waters will be considered.

13 Finally, the **end-users targeted** by the manual are both decision-maker and first responders.

Title of the manual

14 No precise title was found to suit perfectly with the scope of the manual. Some terms were discussed in order to include or to exclude them from the title of the guide:

- .1 Interregional: the term was rejected as the three regions of interest (Mediterranean, Baltic sea and Northern sea) do not share common waters, boundaries nor agreement.
- .2 Multiregional: suitable, and
- .3 International: the term was excluded because the manual will not consider HNS spills in all marine habitats (e.g. mangrove, coral reefs).

15 Finally, two titles are proposed and could be discussed between representatives of HELCOM, OSPAR and REMPEC during the next meeting of their respective governing body and during events organised within the framework of the project:

- .1 **Joint Multi-regional Response Manual for HNS Spills**: suitable title but heavy;

- .2 **Marine HNS response manual** with subtitle *multi-regional indicating REMPEC, HELCOM and OSPAR logos*.

Practical use

16 With a view to support the drafting process Cedre, ISPRA and ITOPF identified the following practical requirements:

- .1 Document should be self-standing, and readers should find most relevant information in the document;
- .2 Electronic version of the manual: interactive document with intralinks and weblinks;
- .3 References could be added to obtain additional information from external document;
- .4 The document format must include side tabs for quick access to relevant information, spiral bind, printed on water resistant material. The size of the Transport-Canada Cedre manual was recommended whilst A5 format was considered an alternative. The document orientation would be portrait, and all pages should be within as a single document (no extractable page);
- .5 1 example of response per category of product behaviour;
- .6 Homogeneous specification of each response sheet: number of words, schema/picture, to do/not to do;
- .7 Style guide: orange as a dominating colour as to match the existing HNS guides and convention brochures.

General structure of the West MOPoCo HNS response manual

17 In line with the outcome of MEDEXPOL 2018, Cedre, ISPRA and ITOPF noted that among all documents referred in the comparative analysis, the operational guide on HNS developed by Transport Canada and Cedre is the most user-friendly. Hence, they proposed to split the Manual in two parts, as follows:

- .1 A first part including main points of the methodological approach, and
- .2 A second part including operational sheets: technics, checklists.

18 Annexes will include specificities of the different regions considered.

19 Content of the manual will be composed by organizing and improving the already existing published materials.

20 The initial draft outline of the Manual, including the potential source of information and expected contribution of the government representatives and partners is reproduced in **Annex II** to the present document.

Actions requested by the Meeting

21 The **Meeting is invited to:**

- .1 **take note** of the information provided in the present document; and
- .2 **examine and provide comments**, as required on the proposed initial draft table of content, reproduced in Annex II of the present document.

Annex I : Comparative Analysis of existing HNS Response Guidelines

Title of the source of information	Generalities		Planning and response		Impact assessment	
	Notable outcomes	Opportunities for improvement	Notable outcomes	Opportunities for improvement	Notable outcomes	Opportunities for improvement
Guide for Marine Chemical Spills (REMPEC, 2000)	- Solid base for illustrations.	- Interesting graphic material, improve design.	- Relevant description of protocols and equipment, - Decision trees with cross-references to action steps.	- Identification (labelling and marking) of chemicals, - Liability and compensation to be introduced.	- References to databanks (including GESAMP profiles), forecasting models.	- Add MARPOL categories.
Manual on Co-operation in Response to Marine Pollution (HELCOM, 2002)	- A single document containing a wide range of technical and operational information.	- Update for regulation and codes.	- Description of the fate of chemicals and techniques for sampling in different locations, - Operational response sheets, including limitations, and cross references with accidents.	- Decision trees with cross-references to action steps, - Update with recent techniques and accidents, - Introduce European norms for PPE.	- Interesting description of modelling tools: capacities and limitations.	- Ecotoxicological effects could be described.
Accidental water pollution by HNS (Transport Canada – Cedre, 2017)	- User-friendly in a two part guide: cross references between methodological approach and operational sheets, - Comprehensive overview on the response on HNS spill management.	- Addition of more specialized technical data sheets, - Electronic tool.	- Includes response and media communication.	- Decision trees with cross-references to action steps, - Customization with cross-references to regional conventions and protocols could be added. - Compensation page might lead to a misunderstanding that the HNS Convention is in place.	- Collection of fixed and variable data, - Interpretation of a modelling result, - Post-spill monitoring.	- Introduce way to determine MARPOL categories.
MIDSIS TROCS (REMPEC, 2003)	- User-friendly and reactive online tool, - Existing offline tool (still possible?).	- Offline setup, - Allow easy extraction of information.	- Well delivered incident reviews, - Decision trees.	- Data to be completed for some chemicals, - Recent incident reviews to be added, - Figures to be added.	- Includes GESAMP profiles, - Link towards external resources (CAMEO/WIZER).	- No information on post-spill monitoring.
Marine Chemical Information Sheets (MAR-CIS) (EMSA, 2017)	- <i>Restricted access</i> , - Easy-to-share and extraction of information, - Reference of source for each data.	- Improve efficiency of research engine, - Speed loading access to be improved, - Allow direct access for all sources of information, - Include gases.	- Limitation to first measures.	- Few references to incidents.	- Includes GESAMP profiles, - Ecotoxicological data.	- No information on post-spill monitoring.
HNS-MS (EU DG ECHO project, 2017)	- Innovative tool including environmental and socio-economic vulnerability maps.	- Extend the geographical area considered.	- Environmental and socio-economic vulnerability maps (Belgium and Bonn Agreement areas).	- Enlarge environmental and socio-economic vulnerability maps to other areas.	- 3D mathematical model.	- Vulnerability maps to be extended to other regions.
MARINER (EU DG ECHO project, 2017)	- Knowledge tool refers to many relevant sources of information, - Ready to use preparedness and training material.	- E-learning to be pursued, - Update of training package in several years.	- Comprehensive compilation of marine research and technical resources (Knowledge tool).	- Trial of tools developed during a major chemical exercise.	- Guidelines and protocols for HNS environmental impact assessment, - HNS spill model integrated into a Common Operational Picture.	- Development of operational tools.
CHEMSAR	- User-friendly with coloured tabs; - Style format.	- extend the field (limited to SAR).	- SOP (Standard Operational Procedures); - Checklists.	- Extend the field (limited to SAR).	- Interesting approach for risk assessment.	- extend the field to environmental impact.
QUADERNI DELLE EMERGENZE AMBIENTALI IN MARE	- Relatively recent compilation of information from HNS manuals; - Response sheets linked with behaviour; - 1 page summing up information for each type of behaviour.	- English version, - Need for monitoring equipment and post spill monitoring.	- Many precise information	- Technical aspect could be extended. - Remove some theoretical explanations linked to specialized aspects (e.g. sedimentation speed of package).	- Not dedicated to impact assessment	- Add information on environmental impact.

Annex II : Proposed Table of contents: first proposal (still in progress)

Part	Section	Sub section	Description/content (additional to existing guides)	Source of information	Deadline
Part 1: generalities on methodological approach	Introduction		Definition of HNS for the guide: OPRC (every product that could damage marine environment, etc. excepted oil) or HNS Convention (limited dangerous goods)?		
	Preparatory phase	Planning, training and exercises, tools and equipment	MARPOL categories and GESAMP	MIDSIS-TROC and ISPRA and MARICE	
	Response management	Observation and notification, immediate actions, assessment of the situation, decision-making, response	Assessment must be done by responders		
	Post response management	Environmental restoration, documentation and record, incident review, compensation	Importance to invite international observer to broaden the lesson learned, mention that HNS Convention is not ratified yet	Transport Canada-Cedre , ITOPF	
Part 2: operational sheets	Preparatory phase	Key points to build emergency response plan, preparation of communication (operational and media), interpretation of modelling results, organization of an exercise, importance of training, acquisition of equipment	- checklists; SOPs	CHEMSAR and ISPRA, ITOPF	
	Response	Assessment: identification of main types of carriers, collection of fixed data, collection of variables data, reception of first information, collection of data depending on the type of transport	- Existing guides (name, date of creation) with corresponding targets and objectives; - Definition/description of BLEVE, UVCE, RPT; - Alternative bunkers: Methanol, batteries (lithium), fuel cell (to be confirmed); - List of existing models; - In situ and automated techniques to elaborate, depending on the behaviour (air, sea surface, water, seabed); - Example of incidents, including major and medium/low incidents	Transport Canada -Cedre (response sheet 13), ISPRA, firefighters	
	Post response management		- Example of incidents, including major and medium/low incidents - Monitoring	ITOPF	
Annexes Regional specificities (West Mediterranean Sea, Baltic Sea). Maximum of 2 pages per region	Maritime traffic	Volume of chemical transport		3 Secretariats and Contracting parties (HELCOM, OSPAR, REMPEC)	Before MEDEXPOL in June 2019
	Vulnerability maps				
	Risk assessment of the top 5 transported chemicals				
	Regional sub-regional agreements		Contact of focal point and emergency numbers		
	Glossary				
	Definitions				
	Bibliography				
Guides of reference					