

Ensuring appropriate dispersant use through distribution of fit for purpose communication material from IPIECA

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Extended Abstract (811 words):

Between 2015 and 2020, ITOPF attended 68 oil spill incidents worldwide. 14 of these incident responses used surface dispersants. Every one of these 14 dispersant operations were wrongly used on oil sheens or tar balls or used in the wrong environments such as close to shore, in shallow waters, in the vicinity of mangroves or on shorelines. These incidents were small-scale spills, with dispersants sprayed by local Oil Spill Response Organizations (OSROs) within the first 24-48 hours.

Recognizing the importance of this data the IPIECA Oil Spill Group decided to explore the challenges of dispersant misuse. IPIECA's Oil Spill Group develops and disseminates good practice to enable industry and stakeholders to improve oil spill preparedness measures and response capabilities worldwide. A specific Dispersants Cohort was established with representation from AMOSC, Chevron, Equinor, ExxonMobil, ITOPF, Oil Spill Response Ltd (OSRL), Shell and Wintershall Dea.

The purpose of the Dispersants Cohort was to explore this challenge of dispersant misuse, and to understand why misuse happens so that steps can be taken to help prevent it. The Cohort reviewed the current dispersant information resources available. They found numerous good practice guides, manuals and technical documents that explain the correct use of dispersants. This material is mainly in English and available globally across several different industry body websites.

The Dispersants Cohort recognized 2 things:

1. The challenge of timely and effective promotion of this wealth of material to a globally diverse audience so that it can positively influence proper dispersant use at the time of application.
2. The currently available material was not suitable to those end-users incorrectly using dispersants. These OSROs may not speak or read English as a first language, may not be aware of the industry body websites, or understand the technical content of dispersant documents.

The Dispersants Cohort agreed that targeted, fit-for-purpose communication material, useful to a broad demographic of end users was missing. To plug this gap, the Cohort has worked to develop and publish an easy-to-understand infographic and a short, animated video. These outputs explain correct dispersant use and clarify when dispersants could be an appropriate response option. The infographic and video are targeted directly at dispersant end-users.

The dispersants infographic was designed by a sub-group of the Dispersants Cohort. With representatives from AMOSC, OSRL, Chevron, Shell and Wintershall Dea. This sub-group also included communication specialists from Chevron, IPIECA and Shell. The infographic started as a simple flowchart summarizing the key decisions that are made before spraying dispersants. For every key decision step, the sub-group found several supporting good practice guides or technical documents that explained how and why these decisions were needed. This highlighted again the wealth of information available already, but how the volume and style of writing made them harder to understand, especially in an operational setting.

From this initial flowchart, each decision step was changed into an easy-to-understand question to answer. These questions are asked in simple terms, with language agnostic prompts to guide the end-user through key steps prior to application. To aid comprehension pictures are used to illustrate

specific oil characteristics and conditions (such as tar balls, emulsions, etc.) or various marine environmental considerations (such a shallow water or mangroves, etc.). These pictures clearly show when dispersants are *not* appropriate to use, which the sub-group hopes will help prevent incorrect dispersant application.

The most important part of the infographic is the offer of free dispersant advice, 365 days a year, through the regional dispersant approval agency, or the local Global Response Network (GRN) member. A link to the GRN website providing their contact number to call, and how to find out the nearest GRN member is very clear on the infographic.

Partnering the infographic is a simple animated video. Following the same decision flowchart construct, the video takes the end-user through the key steps and considerations prior to dispersant application. Like the info graphic, the video is highly visual in design, with minimal use of plain English text, which is designed to be approachable, accessible, and informative. No spoken English is used, which reduces challenges of comprehension, but also improves the utility of the video in noisy operational settings. The use of very simple animation deliberately attempts to convey important technical advice in a way that suits all learning styles and backgrounds. The short (2 ½ mins) video provides an alternative vehicle of communication, with bite-sized information, compatible with frequent users of alternative learning platforms such as 'YouTube'.

The final aim of the Dispersants Cohort is that both the infographic and animated video be circulated to all known Tier 2 OSRO's globally and made easily accessible to all potential end-users of dispersant. In addition, these two products will also be promoted and made available on the IPIECA platform. It is hoped this clear, concise information will help promote the widespread correct use of dispersants in the critical first 24-48 hours of a response.