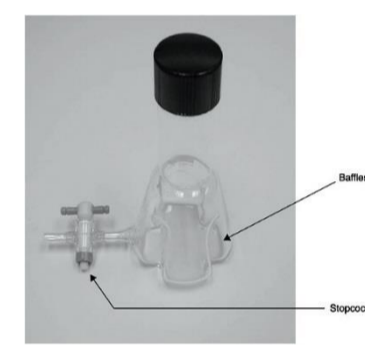
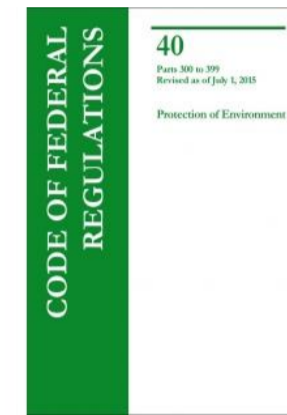




Problem Summary & Decision Context

US EPA has regulatory authority of over the National Oil and Hazardous Substances Product Schedule (NCP) for listing products for treating oil spills.



ORD develops effectiveness and toxicity protocols in support of the NCP.

Protocols provide guidance to emergency responders and contingency planners regarding the effectiveness and suitability of specific products during spills.

Such information assists with decision-making and evaluating tradeoffs for potentially impacted communities and ecosystems.

Public listing of a product's efficacy and toxicity also drives the private sector to continue to advance remediation and response technologies for various conditions and oil products.

Task Overview

- Mandated by the Oil Pollution Act (OPA 90) and the National Oil and Hazardous Substances Contingency Plan (NCP), EPA is responsible for maintaining the NCP Product Schedule (NCP) for listing spill countermeasure products.
- Efficacy and toxicity protocols for these products (dispersants, solidifiers, surface washing agents, bioremediation agents) are developed by SHC 3.62.2.
- SHC 3.62.2 research products are dedicated to protocol development in support of the EPA Office of Land and Emergency Management (OLEM) and the Federal Register 40 CFR § 300.900-920 Subpart J.
- Products enhance preparedness efforts by the Regions to protect communities from exposures to environmental releases of oils and fuels.

Accomplishments

Dispersant Effectiveness Baffled Flask Test

- SHC 3.62 researchers developed a dispersant efficacy test for the NCP. Publications from this work; Venosa *et al.*, 2002 and Holder *et al.*, 2015 are citations within the proposed decision-rule for the 40 CFR § 300.900-920.

Solidifier Effectiveness Test Development

- SHC 3.62 researchers are developing a protocol for solidifier products in support of the NCP. Initial evaluation of the protocol was published in Sundaravadivelu *et al.*, 2016.

Surface Washing Agent Effectiveness Test Development

- SHC 3.62 researchers are developing a protocol for SWA / shoreline cleaner products in support of the NCP. Initial evaluation of the protocol was presented as an internal report to OLEM in 2015 with reproducibility study underway.

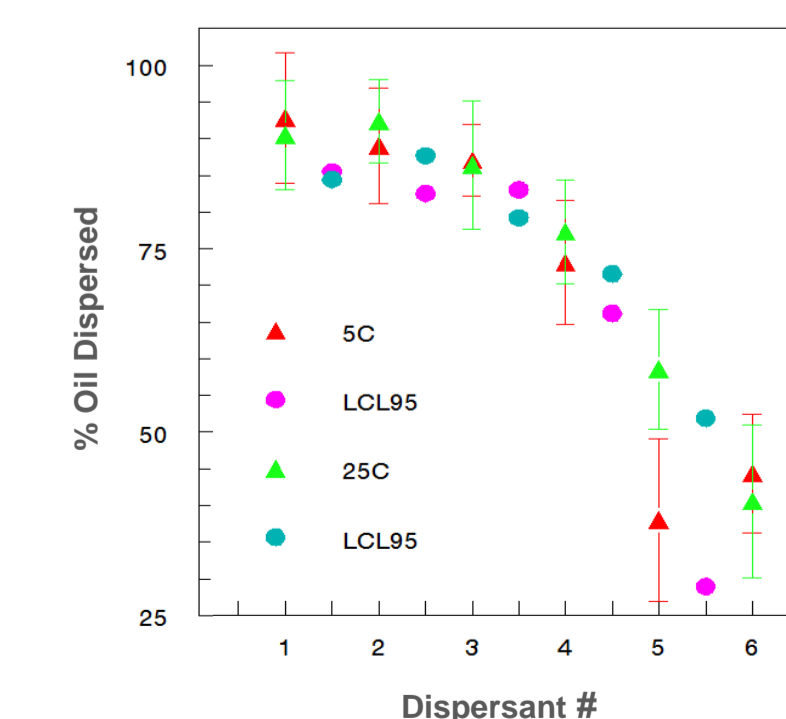
Dissemination of Research Findings

- Research updates presented at ICCOPR (Interagency Coordinating Committee for Oil Pollution Research) and NRT (National Response Teams) S&T quarterly meetings to share findings with Regions, Program Office partners, other spill response federal agencies and NGOs.

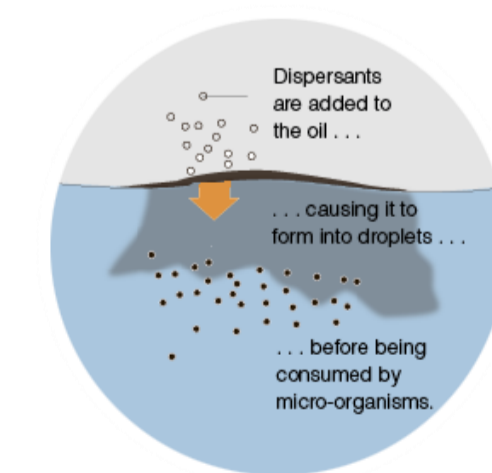
Future Directions

SHC 3.62 has planned for the following deliverables under Task 2 in support of OLEM, the Regions and the NCP:

- Completion of a Surface Washing Agent effectiveness Protocol. Repeatability and Reproducibility studies are underway for the draft protocol. Final Report using existing EPA reference oils is due to OLEM in FY18.
- Completion of a Solidifier effectiveness Protocol. A Round Robin experiment of the draft protocol is underway. Final Report using existing EPA reference oils is due to OLEM in FY19.
- Selection of new EPA Reference Oils for the NCP. Currently, stockpiles of the 2 existing EPA reference oils for product testing are dwindling. SHC 3.62 is working with OLEM to screen for new oils. Chemical characterization, performance evaluation and toxicity screening for the light/medium category is near complete. OLEM has yet to procure the heavy oil for testing. Deliverable for oil selection scheduled between FY17-FY19.



Dispersant effectiveness BFT results for 6 products



SWA protocol development