THE USE OF CHEMICALS IN OIL SPILL RESPONSE

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The quality of the papers in this publication reflects not only the obvious efforts of the authors and the technical editor(s), but also the work of these peer reviewers. The ASTM Committee on Publications acknowledges with appreciation their dedication and contribution to time and effort on behalf of ASTM.

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Foreword

This publication, *The Use of Chemicals in Oil Spill Response,* contains papers presented at the second symposium of the same name, held in Victoria, British Columbia, Canada, on 10–11 October 1994. The symposium was sponsored by ASTM Committee F-20 on Hazardous Substances and Oil Spill Response. Peter Lane, of Applied Fabric Technologies, Inc. in Orchard Park, NY, presided as symposium chairman and is the editor of the resulting publication.

Contents

Overview

Since 1974, ASTM Committee F–20 has been at the forefront of oil spill response standards development. From the outset, dispersants and chemicals have been of interest due to the potential for significant mitigation of environmental damage that chemical agents can provide if used in a proper and environmentally sound manner. When properly applied to a spill in an environment that can absorb the additional load, and adequate monitoring is undertaken, the return benefit of chemical applications can be enormous. One of the major objectives of ASTM Committee F–20 has been to organize and direct some of the efforts in this important area of interest.

This symposium was the fourth in a series begun in Williamsburg, VA in 1977. At that initial meeting, 21 papers were presented covering diverse topics such as dispersion mechanism, toxicity, field trials of application techniques, and fate and effects. There have since been two other meetings, one at West Palm Beach, FL in 1982 and another at Williamsburg, VA in 1989. Including the 1994 meeting, the common thread that runs through all of these meetings has been that general interest in dispersants remains high and that we continue to progress in important areas such as fate and effects of oil spills, and the understanding of chemical mechanisms affecting dispersion. We have made strides in the operational area as well. The focus appears to have shifted over the years from worrying about how the materials are going to be applied, to maintenance of stockpiles, logistical considerations, and monitoring to determine effectiveness.

From the previous symposia, Committee F–20 has generated and captured in print a living history of the progression of dispersant as being seen as environmental disasters to being viewed as potential environmental saviors. This compendium extends that historical library, and it is hoped that it will provide us with a window to the future for the expanded use of dispersant and chemicals for oil spill response.

We divided this symposium into three different general categories to reflect the general areas of interest. These were Laboratory Work, Ecological Considerations, and Operational Considerations. During the meeting, the sense of an "integration" of disciplines was apparent. The crossover of interest across the different "considerations" was encouraging and pointed to the future of this general discipline in the oil spill control industry. It was clear from the often animated interplay among the presenters and audience alike that the future of dispersant chemicals in oil spill response is bright.

This compendium of papers should be viewed in the context of the whole progression of papers presented and published since that first meeting at Williamsburg. In general, the papers presented take a more detailed look at narrow topics as compared to the topics presented in that first conference. I think this reflects a better understanding on the part of all the researchers of the subject matter than the case nearly 20 years ago. What stood out as genuine concerns in 1977 have either been resolved as issues, accepted as doctrine, discarded as not viable, or looked at again in greater detail in this symposium.

If there is any conclusion to be drawn from the papers presented here, it is that we have more work to do. That work may not simply be to take a closer look at a specific subject or

problem, but instead, to fill in blanks and develop a clearer understanding of the whole topic of oil spill dispersion and treatment as a process that will be useful to industry and increasingly less objectionable to the public and the environment.

Many thanks must go out to those individuals who participated in the development of this symposium and for the fine individual and group presentations. Dr. Ron Goodman, Dr. Dick Lessard, Mr. Merv Fingas, and Mr. Gordon Lindblom all did an outstanding job of moderating the individual segments of the program and keeping the program on schedule. The review committee and reviewers with their comments and suggestions all served to highlight the content and quality of the papers presented.

Finally, many thanks to the people of ASTM, without whose guidance and perseverance it would be impossible to put on a symposium, let alone get the proceedings published.

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