Foreword

The symposium on Distillate Fuel System Contamination was presented at Cincinnati, OH, on 24–25 June 1987. The symposium was sponsored by ASTM Committee D-2 on Petroleum Products and Lubricants. Howard L. Chesneau, Fuel Quality Services, Inc., and Michele M. Dorris, Rohm and Haas, served as chairmen of the symposium and are editors of the resulting publication.
Dedication

This book is dedicated to the memory of Harvey von E. Doering, the chairman of Subcommittee D02.E on Burner, Diesel and Gas Turbine Fuel Oils of D-2 Petroleum Products and Lubricants. Doering retired from the General Electric Co. in 1986 where he specialized in the study and abatement of corrosion and deposits in gas turbines. In 1987 he was named a fellow of ASTM. His tireless efforts on behalf of ASTM and his wit and wisdom were instrumental in bringing about the symposium upon which this Special Technical Publication (STP) is based.
Contents

Overview vii

Fuel System Contaminants: An Introduction—HOWARD L. CHESNEAU 1

Microbes in Fuel: An Overview with a Naval Perspective—REX A. NEIHOF 6

Identification and Control of Microbial Growth in Fuel Handling Systems— STEVEN T. SWIFT 15

Microbiological Contamination: Evaluation of Some Sampling and Laboratory Analytical Methods—ANDREW J. HEBDA, RICHARD M. MORCHAT, ROBERT G. BROWN, AND GWYNETH M. JONES 27


Causes of Color Change and Sediment Formation in Navy Distillate Fuels— OPINDER K. BHAN, JOHN B. GREEN, DENNIS W. BRINKMAN, AND BILL CARLEY 48

Effects of an Unstable Diesel Fuel on Injector Coking and Vehicle Performance— ROBERT HALSALL 63

Fuel Filter Plugging by Insoluble Sediment in Diesel Fuels—S. RAGHUMA REDDY 82

Factors to Consider in Testing Biocides for Distillate Fuels—HAROLD W. ROSSMOORE, JOHN W. WIREDAM, LEONARD A. ROSSMOORE, AND VERONICA F. RIHA 95

Additives for Middle Distillate and Kerosine Fuels—CYRUS P. HENRY 105

The Defense Fuel Supply Center’s (DFSC) Quality Assurance Program— CALVIN J. MARTIN 114

Method of Managing Long-Term Diesel Fuel Integrity—PAUL M. MELTON, LANNIE S. MCGAUGHEY, AND ALICE M. GOLDWIRE 119

Quality Control for Diesel Fuel in Long-Term Emergency Storage— KURT H. STRAUSS 139
Effective Treatment of Microbially Contaminated Fuel Storage Tanks—
MICHELE M. DORRIS AND DAVID PITCHER

Effects of Unstable and Microbially Contaminated Fuel on Vehicle Operations:
A Diesel Fuel Preventive Maintenance Program—DONALD E. FRANCIS, II

Fuel Quality Program for Long-Term Storage of Gas Turbine Distillate Fuel in Large
Tanks—THEODORE H. PICKERING, JR.

Panel Discussion

Index
Changes in middle distillate fuel quality over the past two decades have created a situation that requires fuel users to be more diligent in checking both the quality of received fuel and the storage facilities into which the fuel is placed. These changes have come about as a result of lower quality crudes, increased demand for distilled product from those crudes, and more severe refinery processing.

While today's middle distillate fuel still meets ASTM Specifications for Diesel Fuel Oils (D975), problems arising from the fuels susceptibility to both outside contaminants and inherent deficiencies, call for examination of fueling systems.

This symposium is a result of ASTM's continuing efforts to address problems and enlighten both producers and users to the value of this closer examination and some of the possible practical solutions. The symposium was held in June 1987 to present some problems that have occurred in the field and the solutions that were applied. Laboratory techniques were also discussed to provide a balance of technical and practical experiences.

With the advent of smaller more fuel quality sensitive diesel engines and more restrictive Federal emission standards expected by the mid 1990's, the subjects covered in this symposium take on even greater importance. To compound the issue, are the ever increasing regulations on fuel storage.

The 1984 Underground Storage Tank program adopted by the U.S. Congress as part of the Resource Recovery Act is just another facet that complicates fuel usage. In addition, recent reports by the Institute of Petroleum of increasing microbial susceptibility of middle distillate fuels, while creating no cause for alarm, are raising questions about the adequacy of current housekeeping practices especially as it relates to tank corrosion.

In June 1980 a symposium on Distillate Fuel Stability and Cleanliness (STP 751) was presented in Chicago, IL. The symposium was held to assess the current and future needs for tests to predict and monitor the stability and cleanliness of distillate fuels. This symposium extends that process to deal with the practical side. It does not attempt to answer all the questions; it does however suggest some solutions to problems that have been experienced in both the laboratory and the field.

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