

rent state of conservation technology in oil refining operations. The manual is now in six volumes: two deal with water pollution, one with chemical wastes, two with air pollution, and the most recently issued deals with solid waste disposal. Literally tens of thousands of man-hours of effort have been devoted to the preparation and the revising of this manual. Altogether the manual consists of 546 pages. (A listing of the chapter headings and contents follows:)

CHAPTER HEADINGS OF AMERICA'S PETROLEUM INSTITUTE'S "MANUAL ON DISPOSAL OF REFINERY WASTES" (SIX VOLUMES, 546 PAGES)

VOLUME I. WASTE WATER CONTAINING OIL (SEVENTH EDITION, 1963, 104 PAGES)

- Chapter 1. General Considerations of Contamination of Water by Oil.
- Chapter 2. Gravity-Type Waste-Water Separators.
- Chapter 3. Secondary Treatment of Refinery Effluent.
- Chapter 4. Treatment of Waste Emulsion.
- Chapter 5. Disposal of Ballast Water and Tank-Cleaning Emulsion From Tankers and Barges.
- Chapter 6. Measurement of Waste-Water Flow.
- Chapter 7. Dispersion of Refinery Effluents in Receiving Waters.
- Appendix I. Table of Oil-Density Variation with Temperature (15.0 to 35.0 DEG API).
- Appendix II. Jar Test Procedures.
- Appendix III. Chemicals and Compounds Which May Be Used in Coagulation Processes.
- Appendix IV. Test To Evaluate Ponding Characteristics of Waste Water.
- Supplement. Supplement on Dispersion of Refinery Effluents in Receiving Waters. August 1963. (Chapter 7.)

VOLUME II. WASTE GASES AND PARTICULATE MATTER (FIFTH EDITION, 1957)

- Chapter 1. Possible Pollution of the Atmosphere by Gases and Particulate Matter.
- Chapter 2. Classification and Sources of Contaminating Gases and Particulate Matter.
- Chapter 3. Properties of Contaminating Gases and Particulate Matter.
- Chapter 4. Recommended Practices.
- Chapter 5. Collection and Treatment of Pollution Gases and Particulate Matter.
- Chapter 6. Disposal of Particulate Matter.
- Chapter 7. Combustion of Gases in Furnaces.
- Chapter 8. Smokeless Flares.
- Chapter 9. Dispersion of Gases from Stacks and Flares.
- Chapter 10. Air-Pollution Surveys.

VOLUME III. CHEMICAL WASTES (FOURTH EDITION, 1960, 93 PAGES)

- Chapter 1. Properties of Chemical Waste Waters.
- Chapter 2. Sources of Chemical Wastes.
- Chapter 3. Effect of Chemical Wastes on Natural Waters.
- Chapter 4. Waste Control.
- Chapter 5. Control of Waste Streams by Stripping.
- Chapter 6. Control of Phenolic Waste Water by Solvent Extraction.
- Chapter 7. Processes and Methods of Treating Waste Waters Biologically.
- Chapter 8. Processes and Methods of Treating Waste Waters Chemically.
- Chapter 9. Recommended Handling of Specific Refinery Wastes.
- Chapter 10. Process Summaries.
- Supplements. Petrochemical Wastes (to be included as a new chapter of volume III, when it is reprinted).
- Biological Factors of Pollution as Affecting Receiving Waters (a section of the API "Manual on Disposal of Refinery Wastes").