This monograph, prepared by a Working Party of the UK's Major Hazards Assessment Panel, deals with:

- properties, manufacture, uses and handling of sulphur trioxide and oleum;
- health effects of sulphuric acid aerosols (there are no data for sulphur trioxide; it reacts rapidly with water to form sulphuric acid); and
- formation and dispersion of sulphuric acid mist following loss-of-containment accidents (the complex behaviour exhibited by sulphur trioxide and oleum when released into humid atmospheres and on to 'wet' ground is well described).

Detailed information is given in five appendices dealing with toxicity (humans and animals), brief details of some incidents, and the approach adopted by the Health and Safety Executive for modelling the spill behaviour and the subsequent formation and dispersion of clouds and plumes of sulphuric acid mist. The latter descriptions are sufficiently comprehensive to provide useful insights into how the methods could to be codified into computer programs. Weaknesses in the methodology are constructively criticised. The Working Party concludes that "there is a need for reappraisal of the modelling procedures used with the objective of developing more realistic treatments of the source characteristics in relation to the subsequent dispersion behaviour."

The Working Party is to be congratulated for producing a very well written and useful summary of currently available hazard assessment information on sulphur trioxide, oleum and sulphuric acid mist.

C. Nussey

Waste Minimization and Cost Reduction for the Process Industries, P.N. Cheremisinoff, Noyes Data Corporation, Park Ridge, NJ, USA, 1995, $64.00, 331pp. ISBN: 0-8155-1388-7

The purpose of this book, according to the author, is to provide a base of information and analysis to assist in implementation of the policy of reducing and/or minimizing hazardous waste generation in manufacturing and more specifically in the process industries. The book is an outgrowth of the author's assignment by the United Nations Economic and Social Commission for Asia and the Pacific on waste auditing and reduction.

The book has the following eight chapters:

- Waste reduction
- Auditing
- Waste minimization data/information requirements – A general approach for manufacturing
- Estimating releases to the environment
- Waste questionnaires – Water control checklist
- Analysis of process chemistry example processes
- Industry profile – fertilizers
- Treatment of effluent fertilizer industry example

A review of the chapter titles gives evidence of the book's practicality and 'how-to-do' approach: auditing, checklists, questionnaire, examples, etc. The book however, lacks reference to the literature, a feature I feel detracts markedly from its utility.

G.E. Bennett

PII S0304-3894(96)01858-4

Proceedings of the Thirteenth Technical Seminar on Chemical Spills, Calgary, Alberta, June 1996, Environment Canada, Ottawa, Ont., Canada, 1996, 396pp.

These proceedings contain copies of 22 papers presented at this seminar; they cover a wide variety of topics. Major thrust areas at the conference were:

1. Countermeasures
2. Fate and effects
3. Analytical
4. The spill problem

Not given in sessions by themselves, but interspersed under other topics were remediation or site assessment papers found which dealt with the environmental problems of former missile sites in Latvia and the Ukraine.

Other topics that caught my attention were papers on:

1. Recovery of selenium from water using a membrane process
2. HCl spill modeling
3. Chlorine gas release prevention preparedness and response
4. Validation of the Eurospill chemical spill model (for a chemical spill onto a water body)
5. LPG tank failure
6. Recent Canadian chemical spill statistics data

G.F. Bennett

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Toxics Watch 1995, Inform, Inc., New York, NY, USA, 1995, $125.00, 773pp. ISBN: 0-918780-64-0

As one begins to read this book, the statistic that 13,000,000 chemicals have been discovered/created and of that number 72,000 are used in daily commerce catches one's attention quickly. Especially since many of these chemicals are very toxic compounds. Moreover, each year 685,000 new chemicals are identified.

Inform's concern is expressed by the following statement: "Almost none of the 72,000 chemicals in commerce in the United States have been fully characterized for their ability to cause environmental and health effects."