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Book reviews

Proceedings of the 24th Arctic and Marine Oilspill Program (AMOP) and Technical Seminars (18th TSOCS and 3rd PHYTO)
Environment Canada, 2000 (no price given), 925 pp., ISBN: none

These combined proceedings contain the papers presented at the Environment Canada-conducted seminar in Edmonton, Alberta in January 2001. This year the proceedings of all three seminars are combined into one volume:

- Arctic and Marine Oilspill Program (24th),
- Technical Seminar on Chemical Spills (18th),
- Phytoremediation/Biotechnology Solutions for Spills (3rd).

The proceedings are dominated by papers (not surprisingly) from Environment Canada and their contractors. Prominent among the authors is M.F. Fingas of Environment Canada (and a member of the Editorial Advisory Board of this Journal). I counted no fewer than 10 papers that carried his name.

Also not surprising was the number of papers contributed by members of the US Coast Guard and the US EPA given the proximity of the two countries and the long-term cooperation and concern for shared water between the US and Canada.

Several the papers were cooperative testing ventures of Canada and the US conducted at OHMSETT, the US large-scale testing tank in New Jersey. OHMSETT is an above ground concrete tank measuring 203 m long $\times$ 20 m wide $\times$ 3.4 m deep. It is filled with 9.84 million liters of brackish water. The facility has a tow bridge capable of towing test equipment speeds of up to 6.5 knots. A wave generator at one end of the facility can be set to four different stroke lengths and a relatively continuous variation in frequency up to approximately 0.5 Hz.

The facility is a very large and very versatile one. Its size allows realistic full-scale testing. Having personally visited it, I can attest to its usefulness and its impressive size.

While scientists from Canada and the US were the major presenters of papers, I was impressed by the contributions from foreign countries: Norway (four), Japan (three), the UK (two), Denmark (one) and France (one).

In total, there are 59 papers published in the proceedings having the following headings:

- Physical and Chemical Properties and Behavior,
- Contingency Planning and Activity Updates,
- Biological Effects, Biodegradation and PHYTO,

- Containment and Recovery,
- Louisiana Special Session,
- Detection, Tracking and Remote Sensing,
- Oilspill Treating Agents,
- Spill Modeling,
- Shoreline Protection and Cleanup,
- In Situ Burning,
- Technical Seminar on Chemical Spills (TSOCS),
- Poster Sessions.

The papers run the gamut from very practical (Spill Response Exercises and Lessons Learned — A Response Organization's Perspective) to theoretical (Model of Oil Fate and Water Concentrations With and Without Application of Dispersants).

Gary F. Bennett

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Steam and Electroheating Remediation of Tight Soils

Katherine Baishaw-Biddle, Carroll L. Oubre, C. Herb Ward (Eds.); Lewis Publishers, Boca Raton, FL, 2000, US$ 69.95, 410 pp., ISBN: 1-56670-465-0

The purpose of this project was to demonstrate the ability of steam and electroheating to remediate soils. It was one of several projects conducted under the Rice University-directed and Department of Defense-funded Advanced Applied Technology Facility Program for Environmental Remediation Technologies to evaluate the viability of a newly developed remediation methods and to promote more wide-spread use of effective innovative technologies. The initial purpose of the project described in this book was to investigate hydraulic fracturing and steam injection technologies for their utility in contaminated site remediation and to develop guidance for their use.

During well installation, however, it was observed that the lateral extents of the hydraulic fractures were significantly less than expected, consequently limiting the utility of steam injection. Thus, it was decided to modify the project strategies to include evaluation of electroheating and limited steam injection.

"Steam-enhanced hydrocarbon recovery, or steam injection, an in situ treatment technology for remediation of organic contaminants. Steam heating was first implemented for environmental applications in The Netherlands during the mid-1980s. The technology was originally developed in the petroleum industry as a secondary- or tertiary-enhanced oil recovery technique, which relied on viscosity reduction and injection pressure to mobilize crude oil for extraction.

In environmental applications, steam has been injected into contaminated soils to raise the temperature of hydrocarbon contaminants. The elevated soil temperatures increased the vapor pressure and volatilization rate of volatile and semivolatile contaminants, and the high temperature also increased the fluid mobility of semivolatile and nonvolatile contaminants by reducing viscosity and residual saturation. Large quantities of vapors