

Report on the "Symposium on Mixed Waste Treatment and Disposal"

28 May 1998, Ann Arbor MI, U.S.A.

[Mixed Waste Symposium Agenda](#)

Over the past ten years the difficulties associated with managing mixed waste have had a significant negative impact on pharmaceutical and biomedical research, and will greatly influence the future health of life sciences research in the U.S.A. The IIS sponsored a one day Symposium on these issues in Mystic, CT, in October 1996. To assess progress in addressing these issues, a further one day "Symposium on Mixed Waste Treatment and Disposal" was held in Ann Arbor, MI, on 28 May 1998. The Symposium was sponsored by the International Isotope Society (IIS), as an activity of the Low-Level Radioactive Waste (LLRW) Committee. Travel funding for the speakers was supplied by the LLRW Committee and the IIS. The meeting was co-chaired by [Larry Weaner](#) (R.W. Johnson Pharmaceutical Research Institute) and [Phil Williams](#) (Lawrence Berkeley National Laboratory).

The Symposium had three major sections: i) Characterization of the problem, and regulatory perspectives; ii) technical advances in mixed waste treatment; and iii) vendor presentations. Presentations commenced at 8 am, and the meeting concluded at approximately 3.30 pm.

The first talk in the morning section was given by [Hiromi Morimoto](#) (Lawrence Berkeley National Laboratory) who presented preliminary results from a Waste Survey initiated by the IIS LLRW committee. The second presentation was by [Carey Johnston](#) (U.S. Environmental Protection Agency) who summarized current EPA mixed waste activities, including information about [EPA's Mixed Waste Team](#), the Mixed Waste Storage and Disposal Rule (MWSDR), the Low Activity Mixed Waste Disposal Rule, the projected fate of the RCRA Mixed Waste Enforcement Policy. [Kathleen Asbell](#) (Lockheed Martin) presented an overview and examples of [National Low-Level Waste Management Program](#) activities, as co-ordinated from the Idaho National Engineering and Environmental Laboratory. [Lou Todisco](#) (NEN Life Science Products, Boston MA) discussed his company's experience and perspective in managing mixed waste. Over the past decade NEN has reduced their mixed waste by 50%, while increasing production by about a factor of seven.

After a short break, a series of technical presentations was initiated by [Ed Rau](#) (National Institutes of Health). Ed presented a short "MW-101 primer" followed by a detailed discussion of NIH's mixed waste challenges and management approaches over the past decade. Larry Weaner followed with a discussion of the performance and capabilities of the catalytic oxidation system developed and used at RWJPRI over the past several years. [Martyn Adamson](#) (Lawrence Livermore National Laboratory) presented the theory

underlying the use of Molten Salt Oxidation technology, and discussed results of some relatively large scale studies conducted at LLNL, including recent Pilot studies. [Steve Birdsell](#) ([Los Alamos National Laboratory](#)) made a presentation on the Palladium Membrane Reactor technology for recovering tritium as tritium gas from tritiated water and small organic molecules. The PMR technology has been developed in support of the National Fusion Energy Program. [Walter Shmayda](#) ([Ontario Hydro](#)) made a presentation on the technology used by Ontario Hydro to isolate and purify tritium. Walter discussed several special projects underway concerning mixed waste and tritiated oils.

The last session comprised a series of presentations by representatives from commercial treatment, storage and disposal vendors on their current and projected mixed waste capabilities. The representatives spoke in the following order: [Larry Hembree](#) ([Diversified Scientific Services Inc.](#)), [Ben Warren](#) ([Perma-Fix Environmental Services](#)), William Dornsife ([Waste Control Specialists](#)), Bob Gallagher (NSSI/Recovery Services Inc.), and Matt Osborn (NIAD).

Fifty three people attended the meeting. We consider this an extremely successful, educational and worthwhile symposium.

More information about the meeting is available by contacting [Larry Weaner](#) or [Phil Williams](#).