Presidents’ Message - November 2006

Dear SRA-New England Members:

Thanks to Dr. Michael Bank for his well documented work and presentation in October on broad scale trends in mercury accumulation in various habitats as a result of large-scale disturbances.

Our next meeting is on Wednesday, November 15, 2006 in Room 1-150 on the MIT Campus. Please note that the location of this room may be different from those that you may be accustomed to. Building 1 is at the corner of Massachusetts Avenue and Memorial Drive. You can locate the building on a campus map by going to: http://whereis.mit.edu/map-jpg and then typing in ‘1’. In case of a last-minute change in location, please watch for notification emails the day of the seminar.

Our presenter for November will be Dr. Tsedash Zewdie from our office in the Massachusetts Department of Environmental Protection. She will lead you through a most interesting presentation of our path to setting a perchlorate drinking water standard in Massachusetts, which will include presentation of the major toxicological issues, uncertainties and views of other national groups.

We’ll look forward to seeing you on the 15th.

With best wishes,

Michael Hutcheson,
President
The Occurrence, Health Effects & Regulation of Perchlorate in Massachusetts

Abstract: Ammonium perchlorate (NH₄ClO₄) is an inorganic chemical widely used as an oxidizer in solid propellants for rockets, missiles, fireworks and explosives. Perchlorate ion interferes with the synthesis of thyroid hormones, which are essential for metabolism, normal growth and development, especially neurodevelopment in fetuses and neonates. The Massachusetts Department of Environmental Protection (MassDEP) did an extensive evaluation of the toxicity of perchlorate and its occurrence in Massachusetts drinking water systems, and promulgated the first-in-the-nation drinking water (MCL) and waste site cleanup standards in 2006. Various states including, California, New York, and New Jersey, have proposed various standards for perchlorate. The USEPA has derived a drinking water exposure level, which is several times higher than the MassDEP standard based on the National Academy of Science’s evaluation of perchlorate toxicity. Dr. Zewdie will discuss the health effects, the MCL derivation process, and sources of perchlorate contamination of drinking water in Massachusetts, and the origins of the differences in proposed health numbers for perchlorate by the various regulatory agencies.

Biography: Dr. Zewdie is a toxicologist and has been an Environmental Analyst in MassDEP Office of Research and Standards since 1992. Her responsibilities include setting exposure standards for toxic chemicals in water and air. Major projects that she has worked on include updating and deriving new standards for petroleum hydrocarbons, developing standards for arsenic and perchlorate. Her major area of toxicological interest is mammalian xenobiotic metabolism. Dr. Zewdie received her MS in pharmacology and PhD in toxicology from Northeastern University.

**********POSITIONS (none this month)**********

Please note that the job-posting fee for this newsletter is $100 for recruiters/commercial and $50 for government and nonprofit organizations. Please make your payment to Arlene Levin, NE-SRA Treasurer at Eastern Research Group. Inc. 110 Hartwell Street, Lexington, MA 02421