

Wednesday, March 14, 2018

Black Lab Pub, Churchill Room • 4100 Montrose Blvd.
Social Hour 5:30–6:30 p.m.
Dinner 6:30–7:30 p.m.

Cost: \$30 Preregistered members; \$35 non-members/walk-ups

To guarantee a seat, pre-register on the HGS website & pre-pay by credit card.

Pre-registration without payment will not be accepted.

Walk-ups may pay at the door if extra seats are available.

If you are an Active or Associate Member who is unemployed and would like to attend this meeting, please call the HGS office for a discounted registration cost. We are also seeking members to volunteer at the registration desk for this and other events.

HGS Environmental & Engineering Dinner Meeting

Harry Behzadi, PhD
Vice President,
Business Development
North America SGS

ETHICS MOMENT

We will dedicate 15 minutes at the beginning of each meeting to ethics to apply towards 0.25 hours of ethics credit.

Emerging Contaminants: Perfluorinated Alkylated Substances (PFAS)

PPFAS are a class of synthetic fluorinated chemicals used in many industrial and consumer products, including defense-related applications. They are persistent and can be found at low levels in the environment, and bio-accumulate.

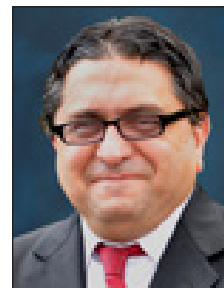
The sources that can release significant quantities of PFAS into the environment could be industrial and municipal wastewater treatment plants (e.g. from textile industry, chrome-plating industry), landfill leachate treatment plants, fire-fighting incidents and fire-fighting training areas (e.g., at airports, fuel production and storage facilities) and landfills.

Human exposure to PFAS is primarily by ingestion of contaminated foods or water. These compounds are not metabolized, bind to proteins (not to fats) and are mainly detected in blood, liver and kidneys. Elimination of PFOS, PFHxS and PFOA from the human body takes years, whereas elimination of shorter chain PFAS is in the range of days. As a result the EPA is primarily focused on the long chain PFAS compounds. Concern around the environmental effects of PFAS use began in the late 1990s when it was realized (due to their resistance to biodegradation) PFOS and PFOA were ubiquitous in various biological (wildlife and humans) and environmental (water bodies) matrices.

Solid phase extraction and liquid chromatography / tandem mass spectrometry (LC/MS/MS) is used to determine the majority of PFAS compounds although specific precautions are required in sampling of environmental media since PFAS adsorb strongly to glass. Teflon-containing materials can also lead to an increased background level. Currently the most appropriate material for sampling seems to be using polyethylene or polypropylene. ■

Biographical Sketches

DR. BEHZADI is currently Vice President of Business Development for SGS-EHS North America. Most recently he was the Vice President of Operations, for TestAmerica Inc Eastern region. Prior to joining SGS he was VP of operations and Corporate Technical Director for Accutest Laboratories, Inc. Since 1994



Dr. Behzadi had spearheaded growth and expansion of Accutest Corporation in the Southeast and beyond to the West Coast. He started Southeast division in 1995 and developed the lab from a handful of employees to one of the largest environmental laboratory in the South with staff 90+ strong. He began his career in the pharmaceutical industry and has been responsible for laboratory management, analytical method development, professional training and QA/QC in both the environmental and pharmaceutical industries. He has navigated multiple laboratories (Dept. of Defense and Fortune 500 Companies) through certification and NELAP accreditation process. His expertise encompasses all aspects of the environmental testing business including technical and operations management, new method development, acquisitions, operations integration, sales and business development.

Education: Rutgers University, Newark, NJ PhD, Analytical Chemistry, 1992
Rutgers University, Newark, NJ MS, Chemistry, 1985
Montclair State College, Montclair, NJ BS, Biology and Chemistry, 1982