

Tuesday Evening Monthly Program – September 8, 2009

5:30 pm Board of Directors Meeting, Social Half-Hour and Snack.
6 - 7:00 pm Presentation followed by questions.



Place: Santa Clara University
Bannan Engineering
Building 403, Bannan Engineering Lab, Multipurpose Room

Santa Clara University Campus Map Directions, including Transit information

<http://www.scu.edu/map/index.cfm?i=32> <http://www.incose.org/sfbac/Directions-to-SCU.html>

From the main campus entrance on El Camino Real in Santa Clara, CA, stop at the visitors entrance booth and ask for a "Visitors" parking permit. Say you are here for a meeting and that you are an invited guest of the Dean of Engineering. Park in the parking garage in the visitor's parking spaces or in any other available "Visitors" parking space.

If you have any questions about SCU, you may contact Campus Security at 408-554-4441.

SFBAC will be offering a **Live Meeting Option** for the monthly INCOSE meetings.

<https://www.livemeeting.com/cc/incose/meet/M6QSDN>

Voice over the phone will be at:
1-866-398-2885
Passcode: 674493

Food Donation: FREE for members; \$4 for non-members.

For more information, contact:

Dave Mason, 408-742-0688, (david.mason@incose.org) or
Chin-An Cheng, 650-354-5913, (chinan.cheng@incose.org) or
Danny Hahn, 650-966-2107, (danny.hahn@incose.org) or
Dorothy McKinney, 408-742-8790, (dorothy.mckinney@incose.org).

For information about this mailing list please visit <http://www.incose.org/sfbac/mail.html>

The mission of the International Council on Systems Engineering (INCOSE), a non-profit professional society, is to "foster the definition, and practice of World Class Systems Engineering in industry, academia, and government."

The SF Bay Area Chapter presents thought-provoking monthly programs for its members and their guests. Learn about INCOSE at <http://www.incose.org>.



Speakers: Tony Graves

Heavy Equipment/Sweeper Operations
Waste Management Inc (WMAC)
RS71@aol.com

Topic: Systems Engineering as Applied to Municipal Solid Waste

The industry of Municipal Solid Waste is part of the Environmental Services sector of the U.S./world economy. It is a +\$60 billion industry that has undergone tremendous changes over the past four decades. The industry, once a collection of small operations, saw rapid growth during the 1970's and 80's through acquisitions by industry giants such as Waste Management Inc. and Browning - Ferris Industries. Today, with BFI absorbed into the Republic Services Group of companies, it along with industry leading WMI and others have introduced technologies in recent years to help bring efficiencies to their respective operations. An example being WMI's change a few years ago from a Profit Center format for its route trucks to a Central Controlled Systems of Operations from its H.Q. in Houston, Texas.

The industry has also evolved into an integrated system of operations in a large part due to the passage of many recycling laws around the country, most notably California Assembly Bill 939 in 1989 which mandated that solid waste/refuse be diverted from landfills starting in 1990.

The industry also represents the pillar of environmental stewardship due to the passage of early environmental laws such as the National Solid Waste and Disposal Act (1965), Resource Conservation and Recovery Act (1976), and the implementation of Subtitle D (1991) for regulations governing sanitary landfill design and operation. These with the Clean Water Act (CWA) and Clean Air Act (CAA) make the industry one of the most regulated in the environmental services sector. This has also pushed many of the industry leaders to attain ISO 14000 Environmental Management Certification for specific processes.

Biography:

Tony Graves is a thirty year employee of Waste Management of Alameda County and a member of Teamsters Local #70 in Oakland, CA. During this time he has worked in residential and commercial collection operations, and is currently a heavy equipment/sweeper operator at the Davis Street Transfer Station in San Leandro, CA.

Mr. Graves holds Certificates in Integrated Waste Management and Supervision & Management from SJSU Extension (1994) and is currently pursuing double Associates of Science degrees (Environmental Hazardous Materials Technology and Occupational Safety & Health) through the Chabot-Las Positas College District. Other coursework includes several locales such as UCB and UCSC Extension, Caltech, and Harvard's JFK School of Government. Mr. Graves is also currently Chairman of the Castro Valley Sanitary District's Community Advisory Committee, where as Vice-Chairman in '05, along with other committee members, worked in the dispersion of grant funds to local organizations participating in community environmental projects.

Mr. Graves is a member of INCOSE and other trade organizations.