Rocky Mountain Chapter

Semiconductor Environmental Safety Health Association

Topics:

- Energetic Materials Management– Industry vs. Research Laboratory Perspective (John Visty Salus Engineering, Troy M cCuskey NREL)
- Glove Box Safety, (George Evans, NREL)
- Toxic Gas Detection Overview, Codes, Monitor Types (Jeff Fox, DOD Technologies)
- Toxic Gas Emissions during Etch Tool Chamber Maintenance (Jamie Rubin, Broadcom)
- EHS Topics at University - Colorado School of Mines (Barb O'Kane, CSM)

Hosted by: National Renewable Energy Laboratory, Golden, Colorado

Location: 15013 Denver West Parkway
Golden, CO 80401

Date: November 1st, 2017

Time: 9:00am to 2:00pm

Registration: You must register to attend at https://www.surveymonkey.com/r/Q3ZHYXR (We have a limit of 44 people) If you are a non-USA citizen who does not work at NREL, you must register by October 30th, 2017.

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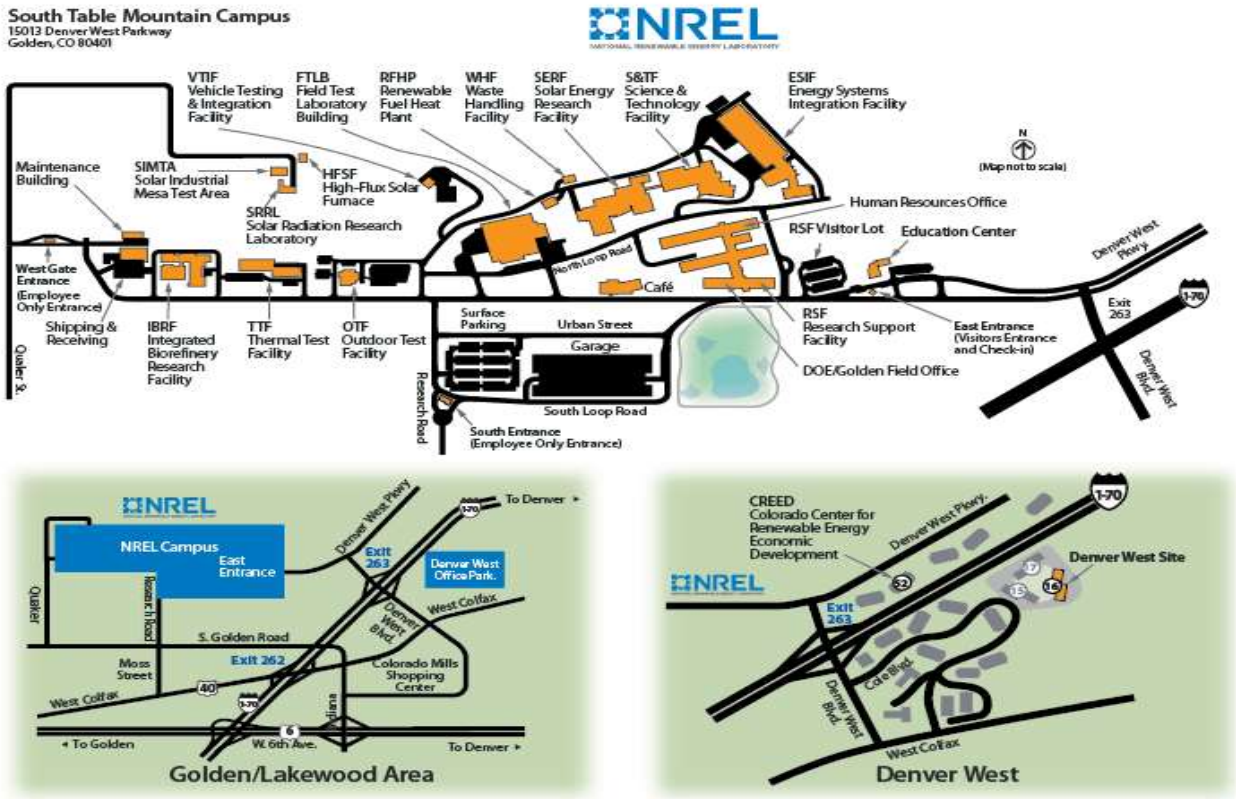

Energetic materials Safety

Many processes used in manufacturing semiconductors and solar cells require reactive chemistry; therefore some of the materials used are naturally unstable and/or have energetic properties. Some of these materials can also produce byproducts, which may be reactive under certain conditions during processing and maintenance. Control mechanisms are in place to mitigate the hazards of such materials, however new and emerging materials, some with unknown properties, are continuously being introduced into research and manufacturing. Incidents involving reactive materials periodically occur in the industry, therefore the focus on hazards identification and control is a continuing priority.

Instructor

Eugene Ngai
Chemically Speaking LLC

Eugene has over 40 years of Specialty Gas experience in production, laboratory, R&D, engineering and safety positions. He retired from Air Products in 2009 and formed Chemically Speaking LLC a compressed gas safety and emergency response training and consulting corporation. Chemically Speaking LLC currently has numerous multi-year agreements to advise manufacturers, suppliers and users of specialty compressed gases, primarily in the Semiconductor, LCD or Photovoltaic industries. He travels over 150,000 miles per year on projects.

He continues to be active in a number of worldwide industry association working groups, CGA G-13 (Silane), NFPA 55 (Industrial and Medical Gases), NFPA 400 (Hazardous Materials), NFPA 318 (Semiconductor), SEMI EHS, SESHA and UN TC58 SC2 WG7 (Gas Toxicity, Flammability, Oxidizer). He coordinated 6 days of silane release testing in 2011 and 2012, in New Mexico to gather data for revision of CGA G-13 standard on silane a pyrophoric gas that has been involved in over 10 fatal accidents.

He has made over 200 presentations worldwide on Emergency Response, Product Safety, Gas Technology and Environment over the last 25 years. He has campaigned extensively on silane safety. He chaired 12 one day silane safety seminars, in Taiwan, Korea, Singapore, US and Europe starting in 2006. He continues to conduct compressed gas safety and emergency response classes throughout the world. He has taught numerous courses (1-3 day) on compressed gas safety and emergency response and has trained over 10,000 users from government agencies, universities, gas manufacturers and semiconductor fabrication facilities. He has also taught at a number of Fire Academies worldwide, including New York, Honolulu, San Jose, Camden County and Singapore and as well as at 3-4 HazMat Conferences per year. Over 4,500 firefighters have been trained. Eugene has a Bachelor of Science in Chemical Engineering and a Master in Environmental Engineering

He was honored with the CGA Lifetime Safety award in 1999, Fire Dept of New York Commissioners award in 2007, made a SESHA Fellow in 2009 and received the American Chemical Society Howard Fawcett Award for Contributions to Chemical Safety award in 2011. He has 5 US patents for Gas Safety Devices. He designed the Solkatronic 5502 ERCV (Cylinder salvage vessel) in 1988 that has become the standard in high pressure leaking cylinder containment worldwide. Over 400 are in use worldwide including FBI HMRU and FDNY HazMat 1.