

NU Mechanical and Industrial Engineering Colloquium Series – FALL 09

FRIDAY, November 20, **Room 206 Egan Center**

SEMINAR TITLE

**“Coal Combustion – How it Happens,
What is Left Over and Why it Still Matters”**

SEMINAR SPEAKER

Eric Suuberg, Ph.D.

Division of Engineering,

Brown University, Providence, RI

PROGRAM

11:30 am - 12:20 p.m. Lecture

12:20 pm - 12:30 p.m. Q&A and Discussion

12:20 pm –12:30 p.m. Pizza

ABSTRACT



Coal has become a highly controversial energy source in this era of concern regarding climate change and greenhouse gas emissions. Still, there are few who doubt that this material will necessarily continue to play a key worldwide role in providing electrical energy for some time to come. There is much left to learn about the nature of the material itself, how its combustion conversion takes place and what is left over once the energy is extracted. This seminar will explore several aspects of the problem, which have been of interest to workers at Brown University. The structure of coal and how these changes during combustion (or gasification) will be examined. The special problem of burnout of carbon in ash will be considered, along with why this is of particular concern from the viewpoint of greenhouse gas emissions, mercury emissions and the nation's concrete infrastructure.

BIOGRAPHIC PROFILE



Professor Suuberg has been at Brown since 1981, when he was one of the founding members of Brown's Chemical Engineering program. His research interests have been in the areas of energy and environmental engineering. He has served as Associate Dean of the Faculty (2002-2005), as Chair of the Psychology Department (2004-5) and as a member of the Executive Committee of the Division of Engineering. He is currently Co-Director of the Superfund Basic Research Program, and a co-founder of the COE concentration as well as a co-founder of the new masters Program in Innovation Management and Entrepreneurship (PRIME). He is a principal editor of the journal Fuel.

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