

# THE COAL GEOLOGIST

THE NEWSLETTER OF THE COAL GEOLOGY DIVISION, GEOLOGICAL SOCIETY OF AMERICA

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VOLUME 27, ISSUE 2



## Comments on the Annual Meeting in Boston and the Proposed Division Name Change *Peter Warwick First Vice-Chair Coal Geology Division*

During the recent Call for Papers for the 2001 GSA Annual Meeting in Boston, Coal Geology Division (CGD) members expressed great interest in the two CGD-sponsored theme sessions (Coal Systems, scheduled for Monday morning, and Fossil Fuel on Federal Lands, scheduled for Wednesday afternoon). In addition, the CGD had 10 additional papers submitted for a general Coal Geology topical session, making this year's number of papers (36) the largest for the CGD in the last 10 years. Thank you for your overwhelming support of these theme and topical sessions. Unfortunately, session times are at the mercy of the GSA Technical Program Chairs, and this year we were not fortunate enough to get a third oral session. We were assigned a Thursday afternoon poster session for the general papers, even though many presenters requested oral presentations. I hope that those of you attending the meeting in Boston will plan to stay until Thursday afternoon to attend the CGD poster session. The poster session looks to be fine collection of papers that address current issues in coal geology that include coalbed methane, coal utilization, and coal-mine hydrology. To those of you presenting posters in the general session, thank you for your interest and willingness to present your posters on Thursday afternoon. The large number of papers submitted this year may increase our chances to get a third oral session and possibly better timings for our sessions next year at the Denver Annual meeting.

In addition to the theme and general technical sessions, the CGD will sponsor a pre-meeting short course ("Mobilization of Metals from Fossil Fuels: Impacts to the Environment and Human Health," taught on Sunday afternoon by Robert Finkelman, Allan Kolker, and Jingle Ruppert of the U.S. Geological Survey), and a Tuesday afternoon field trip to the Salem Harbor coal-fired power plant in Salem, Massachusetts (led by Cortland Eble, Kentucky Geological Survey). Be sure to sign up for these events when you pre-register for the meeting. It is important that we sign up for the short course and field trip, to make these events happen, and to show the GSA community the strength of our Division.

The Cady Award Ceremony and CGD Reception will immediately follow the "Fossil fuel on Federal Lands" theme session on Wednesday afternoon. We will also present certificates to the students that won this year's Medlin Award. Be sure to attend this session and catch up with your colleagues at

the CGD reception. Refreshments will be served. The CGD Business Luncheon will be held at Monday at 12:00 noon. Check your schedules for dates, timings and location for these events.

As pointed out by Thomas Demchuk (CGD Secretary) in his description of the Division published in *GSA TODAY* (September, 2001), and by Jingle Ruppert (CGD Chair) in her message to the Division in the last edition of *The Coal Geologist* (May, 2001), a name change has been proposed for the CGD. The reasoning behind a name change (as suggested by the group of GSA Division Chairs last February at their annual meeting) would be to attract a larger, more diverse membership into the Division, and to have the Division name reflect the current interest and activities of the membership. A quick review of the titles of the CGD-sponsored theme sessions held at GSA Annual meetings during the last five years indicates that the Division focus has been on coalbed methane, environmental, and energy issues in general.

List of CGD theme and technical sessions for the last five years

- Coal Systems
- Fossil Fuel on Federal Lands
- Environmental Aspects of Fossil Fuel Use
- The Impact of Mercury on the Global Environment
- Energy Mix of the Future
- Controls on Sedimentation and Stratigraphy in Major Coal Producing Basins of North America

(cont. on Page 3)



## Coal Geology Division Management Board

**Chair:** Leslie Ruppert  
United States Geological Survey  
Reston VA  
E-mail: lruppert@usgs.gov

**First Vice-Chair:** Peter Warwick, United States Geological Survey, Reston VA E-mail: pwarwick@usgs.gov

**Second Vice-Chair:** Stephen Greb, Kentucky Geological Survey, Lexington KY E-mail: greb@fido.mm.uky.edu

**Past-Chair:** Charles Barker, United States Geological Survey, Denver CO E-mail: barker@usgs.gov

**Secretary-Treasurer:** Thomas Demchuk, Conoco Inc., Houston TX E-mail: thomas.d.demchuk@conoco.com

**Member-at-Large:** Russell Jacobson, Illinois State Geological Survey, Champaign IL E-mail: jacobson@geoserv.isgs.uiuc.edu



**Topical Session No. 66**  
**Coal Systems Analysis:**  
**A New Approach to the**  
**Understanding of Coal**  
**Formation, Coal Quality and**  
**Environmental Considerations,**  
**and Coal as a Source Rock for**  
**Hydrocarbons.**

Monday, November 5, 2001

8:00-12:00PM, Hynes Convention Center, Room 309  
Peter D. Warwick and Robert C. Melici Presiding

8:00AM Coal systems-an integrated approach to the study of coal geology. Melici, R.C., Warwick, P.D., Cecil, C.B. and Gluskoter, H.J.

8:15AM Peat formation: initial phase of coal systems. Neuzil, S. G. and Cecil, C.B.

8:30AM Extensive Late Holocene peat deposits in the Orinoco Delta, Venezuela-A modern analog for coal development in a tropical delta. Warne, A.G., White, W.A., Aslan, A. and Guevara, E.H.

8:45AM The Gulf of Carpentaria as a modern tectonic and eustatic analogue for the Illinois Basin during the Pennsylvanian. Gluskoter, H.J., Edgar, N.T., Cecil, C.B., Dulong, F.T. and Damberger, H.H.

9:00AM The coalification phase of coal systems. Cecil, C.B., Dulong, F.T., and Neuzil, S.G.

9:15AM Origins and evolution of sulfur in coal. Chou C.L.

9:30AM A comparison of four tropical coal swamps from the Illinois Basin during the height of the Pennsylvanian age. Dimichele, W.A., Phillips, T.L, and Nelson, W.J.

9:45AM Geologic and paleobotanical evolution of early and middle Pennsylvanian strata in the Western Kentucky Coal Field. Eble, C.F., Greb, S.F. and Williams, D.A.

10:00AM Spatial and temporal trends of Lower and Middle Pennsylvanian coals, Central Appalachian Basin, U.S.A. Greb, S.F., Eble, C.F. and Chesnut, D.R. Jr.

10:15AM Coal formation, sequence stratigraphy and tectonics of the German Variscan foreland (U. Carboniferous, Germany). Suss, M.P., Drozdowski, G., and Schafer, A.

10:30AM Palynology in coal systems analysis-the key to floras, climate, and stratigraphy of coal-forming environments. Nichols, D.J.

10:45AM A comparison of Late Paleocene and Late Eocene lignite depositional systems using palynology, Upper Wilcox and Upper Jackson Groups, East-Central Texas. Klein, J.M., Raymond, A.L., and Yancey, T.E.

11:00AM Coals of the Lower Olmos Formation (Upper Cretaceous) in South Texas, and Coahuila, Mexico: preliminary CSM (coal system model) data. Warwick, P.D., Hook, R.W., Barker, C.E., Gose, M., Klein, J.M., Nichols, D.J., Sanfilippo, J.R. and Karlsen, A.W.

11:15AM Textural controls on coalbed methane content in the subbituminous coal of the Powder River Basin. Flores, R.M., Moore, T.A., Stanton, R.W. and Stricker, G.D.

(continued from previous column)

11:30AM Competing models for the Fruitland Formation coal and coalbed methane system of the San Juan Basin, New Mexico and Colorado. Fassett, J.E.

11:45AM Coalbed methane formation and water movement: applications of the I-129 and CL-36 systems. Fehn, U., Snyder, G., Riese, W.C., Franks, S.G. and Moran, J.E.



**Topical Session No. 87**  
**Fossil Fuel on Federal Land**

Wednesday, November 7, 2001  
1:30-5:00PM

Hynes Convention Center  
Room 313  
Leslie F. Ruppert  
and Peter D. Warwick Presiding

1:30PM Introductory Remarks

1:35PM Overview of hydrocarbon resources and opportunities on Canada's frontier lands. Smith, D.R.

1:55PM Access and royalties fuel congressional debate over fossil energy on public lands. Applegate, D.

2:15PM Application of regional structural interpretations to oil and gas assessment of federal lands in the frontal Brookian deformed Belt of Alaska's North Slope. Potter, J. and Moore, T.E.

2:30PM From boundaries to barrels: sequence stratigraphy and petroleum resource assessment of federal land in northern Alaska. Houseknecht, D.W. and Bird, K.J.

2:50PM Undiscovered resource and production potential of natural gas from the U.S. federal outer continental shelf (OCS). Ray, P.K.

3:05PM Minimizing impacts from fluid mineral development on national park service lands. Heise, B., Woods, J., Norby, L. and O'Dell, P.

3:20PM Exploration and coal resources of Mexico. Querol, F.

3:35PM Federally owned coal, federal lands, and coal quality in the western United States. Ellis, M.S., Roberts, L.N.R. and Molnia, C.L.

3:55PM Coalbed methane development in the Powder River Basin, Wyoming. Crockett, F.

4:10PM Coalbed methane studies on federal lands in the Powder River Basin and other areas in Wyoming. Stricker, G.D., Flores, R.M. and McGarry, D.E.

4:25PM Discussion



**Coal Geology Division**  
**Business Meeting and Mixer**  
Wednesday, November 7, 2001  
5:00-6:30PM

Hynes Convention Center Room 313  
Immediately following CGD Topical Session 87

Reports of the Officers  
Presentation of the Gilbert H. Cady Award to Jack C. Crelling  
Presentation of A.L. Medlin Scholarship Awards



Session No. 172  
Coal Geology Posters

Thursday, November 8, 2001  
Hynes Convention Center  
Hall D  
1:30-5:30PM

- **Chemical affinities of iron and manganese in Pennsylvanian coal-bearing strata in the central Appalachian Basin: implications for contaminated mine drainage.** Dulong, F.T., Cecil, C.B. and Fedorko, N.
- **Coal ash as an ore: geo-technical methods for coal combustion ash exploration and utilization.** Tyra, M.A., Groppo, J.G. and Robl, T.
- **Effect of pyrite composition, texture, and form on acid mine-drainage potential in coal-bearing strata of the central Appalachian Basin.** Kolker, A., Cecil, C.B., Dulong, F.T. and Fedorko, N.
- **Radium-226 in coal-mine effluent, Perry County, Ohio.** Lee, L.M. and Faure, G.
- **Palynology, petrology and geochemistry of some unique brecciated and mineralized coals from western Kentucky.** Hower, J.C., Eble, C.F. and Williams, D.A.
- **Was *Cordaites* a Late Carboniferous mangrove?** Raymond, A., Costanza, S.H. and Slone, D.J.
- **A quantitative groundwater flow model to facilitate dewatering of overburden at a lignite mine in Louisiana.** Breyer, R.H. and Breyer, J.A.
- **The Harmon and Hanson coal beds in western North Dakota.** Murphy, E.C., Vandal, Q., Kruger, N.W., Goven, G.E. and Tudor, E.A.
- **The coalbed methane potential of the Parana Basin in Rio Grande de Sul State, Southern Brazil.** Kern, M.L. and Kalkreuth, W.D.
- **Genesis of coal linked to catastrophic floods, Early Permian, Parana Basin, Brazil.** Begossi, R., and Della Favera, J.C.

Coal Geology Division Financial Summary  
(as of June 30, 2001)

Revenue Sources:

Division Dues Income \$310.00

Expenses:

Annual Meeting \$168.74

Newsletter and Labels \$203.00

Total Expenses \$371.74

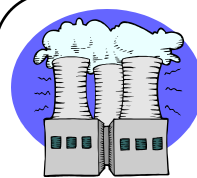
Net Income/(Loss) (\$61.74)

Net Assets

Beginning of Year \$4881.99

Net Income/(Loss) (\$61.74)

Unrestricted Net Assets (year to date) \$4820.25



TOUR OF THE SALEM HARBOR  
POWER PLANT

Tuesday, November 6, 2001  
(Half-day, PM)

Cost: \$25 Leader: Cortland Eble

This half-day, afternoon trip will visit the Salem Harbor coal-fired power plant in nearby Salem, Massachusetts. The Salem Harbor plant, in operation for more than 30 years, has a generating capacity of 750 megawatts and burns primarily low sulfur Appalachian and South American coal. The visit will demonstrate how coal is delivered to, and handled at the plant, and then used to generate electricity. Pollution control systems and ash by-product recovery and handling systems will also be addressed and demonstrated. This trip will be of interest to any geoscientist who would like to see how electric power is generated on a large scale.



COAL GEOLOGY DIVISION  
WEBSITE AND URL

Russell Jacobson, CGD Member-at-Large, has kindly taken over duties as webmaster. Subsequently the CGD website has a new web-address.

Please bookmark the new home of the website:

<http://www.isgs.uiuc.edu/coalsec/GSA>

All Coal Geology Division members are strongly encouraged to pass on updates and articles to Russell for inclusion to the website.

(Warwick: cont. from Page 1)

- Environmental Quality vs. Economic Development: The Role of Coal in Developing Nations
- A Multidisciplinary Study of Coalbed Methane in the Ferron Coals, Utah
- New Developments in Coal and Coalbed Methane Evaluation and Exploration
- Coalbed Methane from Micropore to Pipeline

The current suggested new name for the CGD is the "Energy Geology Division." The CGD Management Board will discuss the proposed name change at the CGD Business meeting in Boston on Monday from 12:00 to 1:30 p.m. (please bring a bagged lunch). According to research into the matter by Thomas Demchuk, a change in the Division's name is governed by the Division by-laws. If the Management Board recommends the name change at the Business meeting in Boston, then it must be advertised to the membership 60 days in advance of any vote. A vote should be by ballot, and a majority vote rules. If the Division membership approves the proposed name change, the Management Board would then vote to ratify the by-law change.

The proposed name change is important issue for the Division to consider. The CGD membership is invited to express your option on the matter, either by e-mailing the Management Board, or by attending the Management Board meeting in Boston. I look forward to seeing many of you in Boston, where we should have a great meeting.

**COAL GEOLOGY DIVISION SCHEDULE OF EVENTS  
GEOLOGICAL SOCIETY OF AMERICA MEETING  
NOVEMBER 1-10, 2001 BOSTON, MA HYNES CONVENTION CENTER**

**TOPICAL SESSION NO. 66**

**Coal Systems Analysis: A New Approach to the Understanding of Coal Formation, Coal Quality and Environmental Considerations, and Coal as a Source Rock for Hydrocarbons.**

**Monday, November 5, 2001 8:00-12:00PM, Hynes Convention Center, Room 309**

**Peter D. Warwick and Robert C. Melici Presiding**

**COAL GEOLOGY DIVISION MANAGEMENT BOARD BUSINESS LUNCH**

**Monday, November 5, 2001 12:00Noon Hynes Convention Center, Room TBA**

**TOUR OF THE SALEM HARBOR POWER PLANT**

**Tuesday, November 6, 2001 (Half-day, PM) Cost: \$25 Leader: Cortland Eble**

**TOPICAL SESSION NO. 87 Fossil Fuel on Federal Land**

**Wednesday, November 7, 2001 1:30-5:30PM, Hynes Convention Center, Room 313**

**Leslie F. Ruppert and Peter D. Warwick Presiding**

**COAL GEOLOGY DIVISION BUSINESS MEETING AND MIXER**

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**SESSION NO. 172 Coal Geology Posters**

**Thursday, November 8, 2001, 1:30-5:30PM, Hynes Convention Center, Hall D**