



Energy Mineral Division's

Committee on Uranium (Nuclear and Rare-Earth Minerals)

January 14, 2020

7:30 PM CST

Teleconference Access: U.S. Dial-In: Inquire

Direct Contact with Chair: 713-248-1708

AGENDA

I. Call to Order (Chairman Campbell)

Committee Members: (☐ = Present)

- Michael D. Campbell, P.G., P.H., Chairman, I2M Consulting, LLC, Houston
- Henry M. Wise, P.G., Vice-Chair (Industry), National Recovery Corporation, La Porte
- Steven S. Sibray, P.G., Vice-Chair (University), University of Nebraska, Lincoln
- Robert W. Gregory, P.G., Vice-Chair (Government), Wyoming Geological Survey, Laramie

Advisory Group (see listing in [UCOM reports](#)):

- Kevin T. Biddle, Ph.D., V.P., ExxonMobil Exploration (Retired) TX (Founding Member EMD in 1977), Houston,
- James L. Conca, Ph.D., P.G., Senior Scientist, UFA Ventures, Inc., Richland, WA
- Gerard Fries, Ph.D., Orano Mining, KATCO JV, LLP, Nur-Sultan, Kazakhstan
- Michael A. Jacobs, P.G., Daniel B. Stephens Associates, (Founding Member), ex-Tenneco Uranium, Midland, TX
- Roger W. Lee, Ph.D., P.G., Pioneer / An I2M Associate, Austin, TX
- Karl S. Osvald, P.G., U.S. Bureau of Land Management, Casper, WY
- Mark S. Pelizza P.G., M. S. Pelizza & Associates, LLC, Plano, TX
- Arthur R. Renfro, P.G., Geological Consultant, (Founding EMD in 1977; Ex-Teton Exploration), Cheyenne, WY
- David Rowlands, Ph.D., P.G., Rowlands Geosciences, Houston, TX

Special Consultants to the Uranium (Nuclear and Rare Earths) Committee:

- Ruffin I. Rackley, Senior Geological Consultant (Retired), Anacortes, WA, Ex-Teton Exploration, Casper, WY (Founding Member of EMD in 1977, Secretary-Treasurer: 1977-1979, and EMD President: 1982-1983).
- Bruce Rubin, Senior Geological Consultant and Author, Millers Mills, NY (Founding Member of EMD in 1977), Ex-Teton Exploration and GPU Utilities
- M. David Campbell, P.G., Vice President and Senior Project Manager, I2M Consulting, LLC, Houston, TX
- Robert A. Arrington, VP, Exploration, Texas Eastern Nuclear, Inc. (Retired), (Founding Member of EMD in 1977) College Station, TX



II. Agenda Items

Item 1. Re-statement of purpose of UCOM:

- 1) “To advise the AAPG membership and the general public on the extent to which uranium used as a fuel to generate electricity competes with fossil fuels, including oil, natural gas, coal, and renewable energy, both today and in the foreseeable future.”
- 2) “To assess the role uranium is currently playing in supplying more than 20% of the electricity used in the U.S. today, and under what circumstances does it compete with natural gas and renewable energy, as coal continues to decline for such use.”
- 3) “To evaluate the available uranium resources in the U.S. and overseas by monitoring reports and reviewing said information from the uranium industry focusing on:
 - a) the geology of uranium, (and often associated thorium, and rare-earth deposits),
 - b) the characteristics of the mineralization and the economic factors involved in their availability,
 - c) the exploration for uranium in trend areas (Athabasca Basin area, Wyoming, Utah, and Texas and New Mexico, and in frontier areas such as in Alaska, and elsewhere in the world,
 - d) the nature of any radiation involved in general environment, around drilling and processing, or during transporting uranium (yellowcake) for enrichment or nuclear waste for storage for later use,
 - e) their use in the generation of electricity by fission in nuclear-power plants and in other applications that could benefit society in the short and long term, such as in medical isotopes, etc., and
 - f) the environmental impacts of all of the above activities or conditions associated therewith on human health and the environment.”

Item 2. Note of Interest: All of the previous UCOM Annual and Mid-Year Reports are now available from the EMD Uranium Committee website ([more](#)). The UCOM members should feel free to distribute these reports and associated details on the function of UCOM to interested parties to the webpages of the UCOM. Our collective efforts in bringing the UCOM message to the AAPG membership and general public continues to be well received.

Item 3. Note of Interest: The 2020 UCOM Annual Report is currently in preparation. It will be presented by Chairman Campbell in Houston, June 11, 2020. A draft of the report will be circulated to the committee in April for review and comment, to be returned by mid-May for revision and submittal to EMD staff for distribution.

Item 4. Other Publications by UCOM: The Mid-Year Reports of all EMD Commodity Committees have been eliminated; The bi-annual article for the *Journal of Natural Resources Research* (JNRR) prepared by the EMD commodity chairs has also been eliminated. All six previous articles: 2007 to



2017 JNRR articles have been archived ([more](#)).

Item 5. UCOM's Chair was invited by EMD President Edith Wilson to submit an abstract to AAPG for the 2020 Conference in Houston on Rare Earths. In turn, I invited Steven Sibray, Robert Gregory, and James Conca to join him on the paper as co-authors because each of them has experience in evaluating rare earths. The [abstract was submitted](#), and it [was accepted as an oral presentation](#). An outline of the draft paper and summary PPT to be used for the presentation will be submitted to you in due course for your comments. Feel free to add information from your work on REEs

Item 6. EMD Commodity Chairs were requested to prepare posters for each of their commodities for presentation at the ACE 2020 a few months ago. However, this has morphed into the Commodity Chairs presenting 15-minute "TED Talks" on each of the commodity committees' activities. This is to consist of presenting the objectives of UCOM emphasizing our research on uranium (nuclear and REE) and associated matters, such as activities within the nuclear power industry, the biases against nuclear power and uranium mining, and political issues. An abstract is being prepared and I will send that to you soon for your comments.

Item 7 . As always, I am encouraging you to continue sending input on the various aspects of uranium, thorium, and rare-earth deposits, markets, and any environmental issues. Should you encounter a report/paper/article of particular interest (either current or classic) please check if the indicated paper/article is already available in the [I2M Web Portal](#) by searching via author/title and if not, send a PDF of the paper/report to me (mdc@i2mconsulting.com).

As you should know by now, this Portal has become the foundation and principal source for investigations conducted by the UCOM to generate the Annual UCOM Reports indicated in the above Item 3. At present, there are more than 9,000 papers/articles in the database, available through current "[What's New](#)" and by the multiple- or single-word search capability ([more](#)). By becoming familiar with the features and functions of the I2M Web Portal, UCOM members will hopefully find it to be a useful tool for research on the topics included in the web portal.

Item 8. Future Activities – UCOM's Continuing Emphasis:

- a) On the economics of mining various types of uranium, thorium, and rare-earth deposits. UCOM members are requested to monitor the information available on the Internet and to advise the UCOM Chair of your findings.
- b) On the costs of exploration and development of off-world mineral resources, specifically, precious and strategic minerals, including helium-3, rare earths, thorium, and uranium. This is an extension of our efforts in 2013 producing Chapter Nine of AAPG Memoir 101 ([more](#)).

III. Other Topics for Discussion?



IV. Motion to Adjoin:

Motion by: Henry Wise

Second by: Steven Sibray

Time: 8:10 PM Central Time Zone

Affirmed by: MDC

XXX