

Methane Hydrates Advisory Committee (MHAC) Meeting

February 15, 2017

2:00 pm – 4:00 pm (EST)

Washington, DC

TELECONFERENCE MEETING SUMMARY

Attached are the meeting agenda and the list of attendees.

Welcome and Introductions

The meeting was called to order at 2:00 pm EST by Lou Capitanio, the Committee Manager.

Committee Business, Lou Capitanio, Committee Manager

Lou Capitanio, the Committee Manager, outlined committee business. He reminded the group that all federal advisory committees are open to the public and deliberations must be done openly and transparently; minutes will be published 2-3 weeks on the Committee website. He further informed the committee that no public comments were received in advance of the meeting nor has anyone requested to address the committee at the meeting. Mr. Capitanio led roll call to ensure that a quorum of members was present; all members introduced themselves and briefly stated their area of interest with respect to gas hydrates research.

Mr. Capitanio then introduced Rob Smith Acting Deputy Assistant Secretary for Oil and Gas within the U.S. Department of Energy and Designated Federal Officer (DFO) for the Methane Hydrates Advisory Committee (MHAC) for his welcoming remarks.

DFO Welcome, Rob Smith, DFO

In his introductory remarks Rob Smith, Acting Deputy Assistant Secretary for Oil and Gas and Designated Federal Officer (DFO), thanked the members on the phone for their public service and stated that the Gas Hydrate Program is of great interest and importance to the DOE. DFO Smith briefly explained the change in the DFO, Mr. Neelesh Nerurkar, being called back to the State Department after the impending change in administration.

The DOE does not have a new Secretary in-place; Governor Rick Perry's nomination has been approved by the Committee but has not yet been confirmed by the full-Senate. DFO Smith noted that we are looking forward to the Secretary to come onboard. He stated the importance of DOE's federal role and highlighted the gas hydrates program priorities in the North Slope collaboration with Japan and hydrate pressure-coring project in the Gulf of Mexico (GOM) scheduled for this summer.

The fiscal year (FY) 2017 funding has not been established. The existing Continuing Resolution (CR) will be in effect until April 28, 2017. Possible scenarios include Congress passing a full year CR or it could pass an appropriations bill. In either case Gas Hydrates is expected to fare well, funded at a level that is between \$10 million (House Mark) and the near \$20 million (Senate Mark). Either of these funding levels will be sufficient to conduct the GOM expedition this FY.

It is likely that the Trump Administration will submit a FY 2018 budget to Congress in April or May at the latest. Once Secretary Perry is in place, we expect that the Office of Management and Budget (OMB) will provide Budget guidance for FY 2018 to DOE. Finally, DFO Smith reminded the Committee that the Secretary of Energy Advisory Board (SEAB) recommended annual funding levels of \$15 million in its January 2016 Report on the Methane Hydrate Program.

DFO Smith concluded his remarks by noting that the purpose of today's meeting is to plan the in-person meeting for this summer. And also to have a discussion and receive feedback on how the program is doing while identifying gaps for going forward in FY 2018 and beyond.

Committee Discussion

Dr. Carolyn Koh, Chair of the Committee ran the meeting and led the discussion. The discussion focused on the key SEAB recommendations first discussed during the last Committee meeting on October 19, 2016. Also, planning of the next in-person meeting.

Regarding the key SEAB recommendations, the important takeaway from those recommendations was to highlight the goal to conduct a long-term production test. The SEAB report addresses production of gas hydrates and emphasizes that gas hydrates fundamental research needs to be pursued while also focusing on environmental issues. The SEAB Report recommended funding fundamental research and large-scale field projects in a 1/3 to 2/3 proportion. The members of the Committee that were also involved in the preparation of the SEAB Report noted that the precise dollar value proposed in SEAB Report is not as critical as is the relative proportion between fundamental science and field work.

An important point made in the SEAB recommendations is that the SEAB recognized the need for stable and consistent gas hydrate research budgets. There was some discussion about making revisions to the SEAB Report; however, DOE staff pointed out that the SEAB Report is official and cannot be changed. Therefore, a consensus was reached by the Committee that it should outline research priorities and funding needed to achieve those priorities in a separate submission to the Secretary.

A Committee member noted that fossil fuels are important to the current Administration and stated that an argument needs to be made by the MHAC that a pathway must be maintained to address gas hydrates basic research and to conduct field tests. However, environmental and climate change research likely will not be a priority of the current Administration.

Other Committee members commented that a distinction between fundamental or basic science research and field programs needs to be made. Such a distinction was not clearly defined in the SEAB Report. Rick Baker, NETL Gas Hydrate Project Manager, noted that fundamental research and field work are not mutually exclusive; field projects, especially in the early stages of technology development, can be mostly fundamental science research. The gas hydrates production test being planned in Alaska will be conducting much basic fundamental research since we are a decade away from commercial production. The Committee discussion also noted that it needs to be pointed out to the new Administration that industry is not likely to advance gas hydrate research in the near-term.

Several additional points were also discussed:

- It was suggested that DOE needs to engage the State Department to educate that agency on the gas hydrate program. International participation in major field projects is key to gas hydrate

research and the State Department could be a good ally in expanding international cooperation. However, a Committee member pointed out that in the past the State Department has shown no interest in gas hydrate research activity.

- For support of the program, utilize the reauthorization of the Methane Hydrate Program found in EPACT 2005 which includes goals and expectations.
- In the next Committee meeting the members would like to hear more from DOE on how it is planning to address the technical questions posed in the SEAB Report with respect to the Alaska long-term production test.
- Engagement of the Arctic Council. However, Arctic Council's interest in gas hydrates stems primarily from environmental/climate concerns.

The Committee expressed a desire to develop a document which could be utilized by the Secretary in support of larger appropriations for the gas hydrates program. To have greatest possible impact, such a document would need to be completed before next year's, FY 2019, budget formulation process. The Committee noted that the letter of recommendations made to the Secretary in 2014, but with higher budgets and more aggressive goals, may be a good starting point. The Committee recommendations will include budget scenarios and goals of what to do, and long-term costs.

The Committee Inquired about the schedule for the FY 2018 budget; and the possibility of the Committee input to DOE to impact that budget request. DFO Smith once again noted that DOE doesn't have guidance on the FY 2018 budget yet. The OMB likely will provide guidance soon that likely will call for an April/May FY 2018 budget request submission. Therefore, in order to have a chance at impacting the FY 2018 budget request, the Committees' recommendations to the Secretary would need to be provided as early in April as possible.

The Committee recommendations would likely have more of an impact on the FY 2019 budget request. The FY 2019 budget formulation will be a more timely process and Committee input should be prepared and submitted to the Secretary in May (ideally), June at the latest and July is too late.

Regarding the next meeting of the Committee, the members suggested having that in-person meeting as soon as practical (the end of March or first week of April) to prepare, review, and finalize the Committee recommendations to the Secretary. Dr. Koh offered to prepare the initial draft letter of recommendations by early March. The next Committee meeting will be held in Washington, DC for a day and a half to discuss and finalize the recommendations. The Committee generally agreed that the letter should be no longer than a page and a half with an attachment providing details (perhaps eight pages or shorter in length).

National Science Foundation Collaboration

Dr. Koh turned over the floor to Dr. Candace Major, Program Director, Marine Geology and Geophysics, National Science Foundation (NSF), to discuss potential engagements regarding gas hydrates. In NSF most of the gas hydrates work is under the marine science, Arctic science, and polar programs. Dr. Major noted that there is no set-aside for gas hydrates; but NSF does make a large investment in the Hydrate Ridge node of the Ocean Observatories Initiative Cabled Array off the Oregon coast. The Committee inquired whether NSF can give priority for ship time to DOE-funded projects and whether DOE/NSF collaborations were possible. Dr. Major stated that DOE projects can request ship time on

UNOLS vessels, but that DOE would be expected to pay the relevant vessel day rates. DOE/NSF funded collaborations would need to be reviewed through the regular competitive merit review process, and any associated ship time would be considered on a project-by-project basis. NSF will keep ongoing conversations with industry and work with DOE to keep each other informed on the research work and ensure there is no redundancy in the programs.

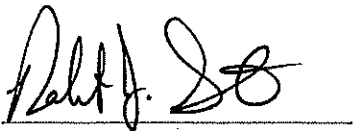
Next Steps

DOE will determine the date for the in-person meeting through a poll of the members. Lou Capitanio, Committee Manager, will provide the members with the recommendations last made to the Secretary in May 2014 (the letter of recommendations also reside on the MHAC website). Finally, Mr. Capitanio will circulate all documents that were provided to the SEAB task force (including 2005 EPACT gas hydrate authorization language) to the Committee members so that they may be used to prepare the current letter of recommendations to the Secretary.

The meeting adjourned at 3:40pm EST.



Carolyn Koh, Chair



Robert J. Smith, DFO

January 17, 2017

Methane Hydrate Advisory Committee Meeting

February 15, 2017 2:00pm – 4:00pm (EST)

Public Access

U.S. Department of Energy
Forrestal Building, Room 4G-027
1000 Independence Ave., SW
Washington, DC 20585

AGENDA

February 15, 2017 2:00pm – 4:00pm (EST)

Time	Discussion Item	Speaker
1:45pm – 2:00pm	Registration	All
2:00pm – 2:20pm	DFO Welcome and Introductions <ul style="list-style-type: none">Budget Update	Robert J. Smith, Acting DAS for Oil and Natural Gas, and Designated Federal Officer (DFO)
2:20pm – 3:40pm	Committee Discussion – Issues/Topics for Next Committee In-Person Meeting <ul style="list-style-type: none">Gas Hydrate Research PrioritiesData Knowledge Gaps Related to Changing EnvironmentsNSF Engagement/CollaborationRevisit CO₂ ExchangeOther	Carolyn Koh, Chair Miriam Kastner, Vice-Chair Methane Hydrate Advisory Committee
3:40pm – 3:50pm	Scheduling of Next Committee Meeting	Carolyn Koh, Chair Miriam Kastner, Vice-Chair Methane Hydrate Advisory Committee
3:50 pm – 4:00 pm	Public comments, if any	Robert J. Smith, Acting DAS for Oil and Natural Gas, and Designated Federal Officer (DFO)
4:00pm	Adjourn	

APPROVED:


Robert J. Smith
Designated Federal Official

Date

1/23/2017

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Table 1: List of Attendees

Attendee	Role	Participated
Dr. Thomas Blasingame Texas A&M University Department of Petroleum Engineering	Committee Member	X
Mr. Richard Charter Senior Fellow The Ocean Foundation	Committee Member	X
Dr. Miriam Kastner Scripps Institute of Oceanography University of California, San Diego	Committee Member	X
Dr. Carolyn Koh Colorado School of Mines Chemical Engineering Department	Committee Member	X
Dr. Michael Max Chief of Research Hydrate Energy International, Inc.	Committee Member	X
Dr. Joel E. Johnson University of New Hampshire Department of Earth Sciences	Committee Member	X
Dr. Robert L. Kleinberg Schlumberger Fellow Schlumberger-Doll Research	Committee Member	X
Dr. Craig Shipp Geohazards Assessment and Pore Pressure Prediction Team Shell International Exploration and Production Inc.	Committee Member	X
Dr. Robert D. Kaminsky Emerging Resources Advisor ExxonMobil Upstream Research Co.	Committee Member	X
Dr. George J. Moridis Head, Hydrocarbon Resources Program Lawrence Berkeley National Lab University of California	Committee Member	X
Dr. Mark D. Myers Commissioner, Alaska Department of Natural Resources – retired	Committee Member	X

Dr. Matthew J. Hornbach Southern Methodist University Huffington Department of Earth Sciences	Committee Member	X
Dr. Evan Solomon University of Washington School of Oceanography	Committee Member	X
Robert J. Smith Acting Deputy Assistant Secretary for Oil and Gas U.S. Department of Energy	DFO	X
Guido DeHoratiis Associate Deputy Assistant Secretary for Oil and Gas U.S. Department of Energy	DOE Staff	X
Lou Capitanio Committee Manager U.S. Department of Energy	DOE Staff	X
Gabby Intihar U.S. Department of Energy	DOE Staff	X
Doreen Nevin ADS	DOE Support	X
Rick Baker National Energy Technology Laboratory Morgantown, WV	DOE Staff	X
Candace Major National Science Foundation	Other	X