

Enhanced Oil Recovery Commission



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April 9, 2014 – 8:00 AM

C'mon Inn Aspen Room, 301 East Lathrop Road
Casper, Wyoming

Commission Members Present:

Tom Fitzsimmons, Chairman
Senator Eli Bebout, via Phone
Tom Drean
John MacPherson
Rob Hurless, Representing Governor Mead
Jimmy Goolsby
Eric Easton, Senior Assistant Attorney General
Aaron Otteman

Commission Members Excused:

Ron Baugh

Enhanced Oil Recovery Institute Staff Present:

David Mohrbacher, Director
Pepper McClenahan, Business Manager
Laura Dalles, Interim Outreach Manager
Allen Tanner, Computer Support Specialist
Chana Conley, Office Assistant, Senior

I. Call to Order

Chairman Fitzsimmons called the meeting to order at 8:01 AM. A quorum was established. Chairman Fitzsimmons made note that there would be slight changes to the agenda. An addition to the agenda would be the election of a Vice Chairman for the Commission. The executive session would be moved from the end of the meeting to after the approval of the January and February general session minutes. Review of the executive session minutes from January and September would be moved from the general session and take place in the executive session portion of the meeting.

II. Introduction of New Commission Member

Director Mohrbacher introduced the new commission member, Ron Baugh, who was not present due to a personal emergency. Senator Bebout requested that the record show Commissioner Baugh was welcomed to the Commission and his presence was missed.

Director Mohrbacher introduced the new Commission and Technical Advisory Board (TAB) coordinator, Chana Conley, Office Assistant Senior. Staff member Laura Dalles was reintroduced to the Commission in her new role as the Interim Outreach Manager following the departure of former Deputy Director / Outreach Manager, Glen Murrell.

Chairman Fitzsimmons indicated executive sessions will be conducted without the presence of EORI staff. This will allow the Commission to discuss any issues relating to the Institute. Chairman Fitzsimmons also indicated Mark Northam, Director of the School of Energy Resources (SER), will be involved in future Enhanced Oil Recovery Commission (EORC) meetings.

III. Approval of Minutes

Chairman Fitzsimmons clarified that the vote approving minutes was for the January 16, 2014 general session minutes and the February 21, 2014 special meeting minutes. Approval of the executive session minutes from the September 11, 2013 meeting and the January 16, 2014 meeting would follow review in executive session.

Motion: Senator Bebout moved to approve the January 16, 2014 and the February 21, 2014 meeting minutes. Commissioner Goolsby seconded the motion. **Motion passed unanimously.**

IV. Appointment of New Vice Chairman

Chairman Fitzsimmons called for nominations for Vice Chairman to fill the position vacated when Chairman Fitzsimmons was elected as Chairman of the Commission.

Motion: Commissioner Goolsby moved to elect Commissioner Otteman as the new Vice Chairman. Commissioner Otteman seconded the motion. **Motion passed unanimously.**

Attorney Easton advised the Commission that the motion to enter an executive session had to include the reason for moving from general session into a closed session.

Motion: Chairman Fitzsimmons moved to go into executive session to discuss personnel matters of the Institute. Motion was seconded by Commissioner MacPherson. **Motion passed unanimously.**

**** Adjourned into Executive Session 8:08 AM****

**** Reconvened into General Session 10:23 AM ****

**** Commissioner Goolsby left the meeting 10:23 AM. A quorum was still present****

Action Item from Executive Session: Commissioner Drean motioned to approve the Executive Session Meeting Minutes from the September 11, 2013 meeting and the Executive Session Meeting Minutes from the January 16, 2014 meeting. Commissioner Otteman seconded the motion. **Motion passed unanimously.**

Action Item from Executive Session: Commissioner MacPherson moved that the salary compensation increases for EORI employees be allocated according to the policy established by the UW Board of Trustees for all other university employees. Motion seconded by Commissioner Otteman. **Motion passed unanimously.**

Action Item: Highest priority must be placed on getting contracts in place for contract EORI employees (academic professionals). Director Mohrbacher is currently working with the University of Wyoming to complete this action item.

V. Director's Overview

Director Mohrbacher presented organizational charts for EORI from 2005 and 2014, highlighting the changes in staff composition.

Commissioner Fitzsimmons made suggestions for changes to the current organizational chart:

- Include Mark Northam, Director of SER.
- Move the Commission to the side in a more advisory position
- Re-title the position of Associate Director to that of Chief Operating Officer.

Director Mohrbacher next highlighted the growth and development of EORI over the past five years. Including:

- Project Management
 - A project work plan (WP) is developed for every scope of work versus project scope being managed ad hoc.
 - Approval of work plans provides a contracted scope with the operator(s) and Institute Director, whereas previously contracts with operators did not include defined scopes of work.

- Project Managers lead each project effort. EORI currently has eight project managers.
- Less experienced staff are empowered to plan and direct work.
- Strategic Objectives
 - Previously strategic objectives focused on publishing technical papers and making presentations at conferences.
 - Current strategic objectives defined metrics for outreach, projects, staff development and support of the State of Wyoming. As well as a new focus on productivity
 - The key metric is incremental oil production in Wyoming resulting from EORI work.
- Annual Outreach Activities
 - Outreach has grown from an annual activity level of two conferences to currently having two conferences and three interactive workshops, three to four forums, approximately twelve technical presentations, and benchmarking.
- Organization
 - In 2009 EORI consisted of mixed faculty and EORI staff with funding to faculty averaging over \$1 Million each year.
 - In 2014 EORI includes 14 technical staff and faculty funding has been reduced to \$500,000 per year.
 - For the first time EORI has implemented annual performance reviews for the technical staff.
- Administrative Staff
 - EORI has grown from having three administrative staff members and utilizing outside IT support to having five administrative staff members including internal IT support.

Director Mohrbacher reported on recent staff development trainings. Topics during the training included sources of resistance to change and methods to overcome resistance. Also discussed were the impacts of changes to EORI and plans of action to overcome some of the impacts.

Director Mohrbacher next gave an update on the allocation of current staffing resources. 28% of technical staff effort is allocated to outreach efforts and small operators within Wyoming. 34% of staff effort is allocated to lab work, and the remaining 38% of staff time is focused on work with Minnelusa and Tensleep projects.

Staff effort allocated along business lines instead of project lines showed that 52% of work was being allocated to miscible and immiscible flooding, 26% to water flooding, and 22% to alkaline/surfactant/polymer (ASP) Flooding.

Staff turnover rates were examined noting that there was no technical staff lost in 2013. Benefits offered to staff in addition to salary compensation were listed, including:

- Health insurance
- Matching savings
- Competitive paid vacation and holiday
- Flexible sick time with sick leave donations available
- Assistance obtaining permanent residency
- Flexible working hours
- The University offers one class per semester tuition free and allows the class to be taken during normal working hours
- Training and professional development

Chairman Fitzsimmons added the staff benefit of being able to do additional consulting work outside of the University. Director Mohrbacher agreed that it was a benefit, and noted that there were some criteria that had to be met for the employee to engage in outside consulting, including the stipulation that the work had to benefit the University.

Commissioner Drean commented it was great to see all the benefits the State of Wyoming and the University offered to employees outside of salary. Commissioner Drean went on to comment that studies have shown employees value other things in addition to salary such as: feeling challenged and being valued at work, feeling their work provides a contribution, and feeling the workplace is ethical. Commissioner Drean commented that salary seems more important to employees when they don't like what they are doing or where they are working.

A new proposal for segmentation of EORI business along business lines was presented. Long-term planning will be completed for the following opportunities:

- Flood design and optimization;
- ASP Flooding;
- Miscible and Immiscible flooding; and
- EOR in Unconventional Reservoirs.

The first implementation teams will meet two weeks after the meeting.

In conclusion, Director Mohrbacher noted improvements to the EORI business office over the past year have resulted from becoming fully staffed. Two new staff members are currently being trained. Measured improvements include:

- Improved financial reporting,
- Reduced rejection of POs provided to university procurement (We went from one of the worst performers on campus to one of the best),
- Improved quality of submittals (e.g. budget requests, meeting minutes, pre-read materials for the EORC),
- Reconciliations of monthly books have been moved forward by 10 days, and
- Monthly PAR reports have been up to date for several months.

VI. Old Business

Review Outstanding Action Items

Action Item from May 15, 2013, contacting Wyoming Oil and Gas Conservation Commission (WOGCC) to coordinate an effort to centralize data and make available to operators, was reassigned from Deputy Director Murrell to Director Mohrbacher.

Action Item from September 11, 2013, include Mark Northam in discussions with EERC, Montana Tech, and Colorado School of Mines about improved oil recovery, had no progress. Director Mohrbacher was tasked with following up on this action item.

Update of EORI Prospects and Projects

Director Mohrbacher noted that EORI currently has a two year backlog of work, and is unable to take on all the prospects that are summarized for the commission. It is important to focus EORI's efforts on the most important opportunities first. Several EORI projects continue to be extended and must be completed to allow reallocation of staff.

Update EORI Spending

Business Manager McClenahan presented the spending report, noting it was current through the February reconciliation and did not include spending in March or the first part of April.

The labor category in the technical and outreach budget is underspent in fiscal year 2013. One research scientist position remains unfilled. Expenditures in the field demonstrations category does not include planned pilot tests. Director Mohrbacher noted that candidates for ASP pilot tests include the West Gibbs Minnelusa and the Osage Field Muddy reservoir. These pilot tests will draw down the unspent funds in the field demonstrations budget.

Business Manager McClenahan noted expenditures are still being incurred for fiscal year 2013 lab supplies and training categories.

Lab equipment expenditures will average out between fiscal year 2013 and fiscal year 2014. The category appears underspent due to the reallocation of funds approved in the EORC Special meeting on February 21, 2014; purchase orders for the equipment were established in March, 2014.

Consulting expenditures for fiscal year 2013 will be underspent after release of encumbered funds from Reza Barati's project.

Expenditures for office supplies were much smaller than projections in fiscal years 2013 and 2014. Recommendations based on actual expenses will be made to improve the estimated budget for the next biennium. These recommendations will be presented at the June EORC meeting.

**** Senator Bebout left the meeting from conference call at 11:07 AM, a quorum was still present****

Business Manager McClenahan discussed expenditures through the entire biennium. The technical and outreach budget will be underspent approximately \$300,000. The commission support budget is estimated to end the biennium with a surplus of about \$10,000.

Commissioner Drean expressed commendations to EORI for returning any unspent funds to the State of Wyoming. Commissioner Drean related his own experience when the State Geological Survey had a biennium where they returned money. Because the agency had returned the unspent money and the Wyoming Legislature felt that the Wyoming State Geological Survey would be good stewards of the money, the Legislature increased the amount of funds allocated to the agency the following year. The fear of returning funds resulting in a reduced budget was not true and in fact resulted in budget increases.

Chairman Fitzsimmons commended Director Mohrbacher and the Institute for developing new procedures and processes for faculty applications of funding with the clear understanding that the project must relate directly to Wyoming oil fields. Chairman Fitzsimmons wanted to make it clear to faculty that surprises in budget expenditures must be avoided. Constant communication between the faculty and the Institute regarding the spending rate of faculty budgets will be required. Business Manager McClenahan responded that being fully staffed and the implementation of the continuous improvement program in the business office is facilitating better communication and more timely reports concerning faculty spending.

Update: 2015-2016 Biennium Budget Signed by Governor Mead

Business Manager McClenahan presented the signed budget for the next biennium. The only change made from the original submission was the removal of funding for compensation increases. All State employee compensation increases were approved by the Legislature in a separate bill.

VII. New Business

Updated Strategic Plan

Director Mohrbacher briefed the Commission on the annual strategic plan update. Strategic objective categories include:

- Organizational
- Staff
- Outreach
- Infrastructure
- Technical

Director Mohrbacher presented a table that summarized the progress for areas within each strategic objective. He noted that strategic planning is focused on defining where EORI wants to be in 3 to 5 years. Good progress has been demonstrated toward achieving most of the strategic objectives presented in April 2013. Little to no progress was achieved on a few of the define objectives. EORI's plan to address these objectives will be presented during the next quarterly (June) EORC meeting. Director Mohrbacher indicated that EORI constantly reprioritizes objectives and reallocates resources based on direction from the EORC. Allocation of EORI resources is updated quarterly, while revision of strategic objectives is completed annually.

The objective to "Complete the systematic evaluation of major Wyoming petroleum-containing reservoirs to target best opportunities for implementation of EOR (enhanced oil recovery). Focus initial efforts primarily on the Tensleep and Minnelusa formations. Carbonate reservoirs including the Madison and Phosphoria will be prioritized for completion thereafter," was not currently assigned and no progress had been made.

Chairman Fitzsimmons inquired if assigning this objective to a staff member was the best approach, or if a graduate student could be tasked with completing the evaluation. Commissioner Dreaan asked why this strategic objective was not completed in years prior. Director Mohrbacher explained that the evaluation had been completed in relation to CO₂, but has not been completed for ASP flooding. Director Mohrbacher indicated that these objectives would be discussed as part of the ASP Team implementation meetings

scheduled within two weeks. It was noted by Chairman Fitzsimmons that once the evaluations were complete, they should be made publically accessible and transparent to industry. Director Mohrbacher agreed.

Action Item: Director Mohrbacher was tasked with developing a plan to complete strategic objectives within the current staff constraints.

Commissioner Otteman noted that due to the physical constraints in the Enhanced Oil Recovery setting in Wyoming, it might be important to recognize the time frame for the development of infrastructure and volumes of CO₂ or sources of enriched gas injection when evaluating the best opportunities of EOR. A practical view must be taken. The economics of each project needs to be evaluated before too much of the Institute's time is invested.

Director Mohrbacher indicated that consultant Steve Fryberger would be used to convert data into practical use. EORI technical staff may have limited knowledge of business applications and may need sensitization to economic aspects of the industry.

Chairman Fitzsimmons asked each of the Commissioners to review the strategic objectives update and provide comments directly to Director Mohrbacher as soon as possible.

Action Item: EORC Members will review the strategic plan and provide comments to Director Mohrbacher.

2014 EORI Outreach Plans and Update

Interim Outreach Manager Laura Dalles presented the outreach update to the Commission:

- The Minnelusa Workshops are scheduled for June. Based on past feedback of attendees, fieldtrips will be offered. Three outcrops in the Sundance area will be visited.

**** Commissioner Hurless left the meeting 11:29 AM, a quorum was still present****

- Immediately following the Sundance field trip, the Minnelusa I and II workshops will take place in Gillette, Wyoming.
- The 8th Annual Wyoming CO₂ Conference will be held during July in Casper, Wyoming. \$36,000 of the needed \$50,000 required to host the conference has already been raised through sponsorships.
- The second conference of 2014 will be the IOR/EOR Unconventional Conference. An agenda for this conference has not been created yet. Planning is still in the very early stages.
- New in 2014 is the offering of forums. The purpose of forums is to educate stakeholders about policies and regulations relevant to the industry and present new and

emerging ideas in the industry. EORI's first forum had 25 local participants and 90 participants via web conferencing.

- To support technology transfer, the EORI Speaker Series will offer a venue for UW faculty, Research Scientists or industry professionals to present on topics relevant to the industry.

The first EORI forum was presented by TriHydro Corporation and addressed air permitting and other environmental issues related to redevelopment of mature oil fields.

Commissioner Dreaan encouraged EORI to "showcase" EORI work and staff in forums, rather than inviting outside organization to present. Director Mohrbacher indicated that a greater investment of EORI staff time would be required to prepare forums, and agreed it would provide more relevant information to industry.

Review of Staff Development Training

Ms. Dalles updated the Commission on the results of staff development training.

The first staff development training was conducted in November. Training covered:

- Understanding Communication Styles
- Effective Communications
- Conflict Management
- Critical Thinking and Decision Making

The intent was to give the group a better understanding of the importance of communication in the workplace. One result of the training was the discussion of issues with trust, respect, communication, and the feeling that favoritism takes place.

In order to facilitate communication, an electronic "suggestion box" will be created. Staff will be able to post anonymously to provide feedback about what is working within the Institute and opportunities for improvement.

The second staff development training took place in February. An update on the second session will be provided at the June meeting.

VIII. Review EORI Calendar

Business Manager McClenahan reviewed the EORI meetings calendar. The next meeting will be held in conjunction with the Institute's Technical Advisory Board meeting on June 19, 2014 in Laramie, Wyoming. The meeting was moved from the historic July date to avoid conflicting with other events taking place in July.

The fall quarterly EORC meeting is scheduled for September 11, 2014 during the EOR/IOR Conference in Casper, Wyoming.

IX. Review Action Items

- It is the highest priority to complete contracts for the academic professional employees as soon as possible. (Director Mohrbacher, Business Manager McClenahan, UW Legal Department, UW Academic Affairs)
- EORC Members will review the strategic plan and provide comments to Director Mohrbacher. (EORC)
- Develop a plan to progress with strategic objectives within the current staff constraints. (Director Mohrbacher)

Chairman Fitzsimmons called for a review of an action item discussed in executive session: the term “chemical flooding” should be replaced with “ASP flooding.”

Motion: Chairman Fitzsimmons motioned to adjourn the meeting. Commissioner MacPherson seconded the motion. **Motion passed unanimously.**

**** Meeting Adjourned at 11:52 AM****

 JUNE 19, 2014

Tom Fitzsimmons, Chairman

