

MEETING MINUTES
LIGNITE RESEARCH COUNCIL
August 10, 2005
Kelly Inn, Bismarck, ND

MEMBERS (or their authorized alternates) PRESENT:

Michael Altavilla, Dakota Westmoreland Corporation / Westmoreland Coal Company
Steve Benson, Energy & Environmental Research Center
Warren Candy, Minnesota Power
Randel Christmann, North Dakota Senate (Dist. 33)
Kevin Cramer, North Dakota Public Service Commission
John Dwyer, Lignite Research Council
Layton Freborg, North Dakota Senate (Dist. 8)
Paul Govig, North Dakota Department of Commerce
Dan Hagemeister, Coal Conversion Counties Association
Carlyle Hillstrom, North Dakota Farm Bureau
Mike Hummel, BNI Coal
Luther Kvernen, Minnkota Power Cooperative, Inc.
Al Lukes, Dakota Gasification Company
Ed Murphy, North Dakota Geological Survey
Millie Perry, U. S. Department of Energy / National Energy Technology Laboratory
Dean Peterson, The North American Coal Corporation
Jan Rudolf, Otter Tail Power Company
Dave Smith, SaskPower
John Weeda, Great River Energy

OTHERS PRESENT:

Dave Allard, Lignite Energy Council
Jeff Burgess, Lignite Vision 21 Program
Jim Deutsch, North Dakota Public Service Commission – Reclamation Division
Mike Eggl, Basin Electric Power Cooperative
Karlene Fine, North Dakota Industrial Commission
Vicki Gilmore, Lignite Energy Council
Curtis Jabs, Basin Electric Power Cooperative
Wayne Kern, ND Department of Health
Harvey Ness, Lignite Research Council
Mike Paul, Basin Electric Power Cooperative
Carla Ralston, wife of Nick Ralston
Nick Ralston, Energy & Environmental Research Center
Vicky Steiner, Coal Conversion Counties Association

Lignite Research Council (LRC) chairman John Dwyer called the LRC meeting to order on August 10, 2005 at the Kelly Inn, Bismarck, North Dakota.

Approval of May 19, 2005 LRC Meeting Minutes

Dwyer asked for a motion to approve the minutes of the May 19, 2005 LRC meeting. Warren Candy so moved; seconded by Dean Peterson. Motion carried.

Financial Summary as of June 30, 2005

Harvey Ness, technical advisor for the North Dakota Industrial Commission (NDIC) and the LRC, summarized the Lignite Research, Development and Marketing Program (Program) financial information that is available on the NDIC web site. As of June 30, 2005, available funding balances from the Lignite Research Fund (LRF) for the 2003-2005 biennium were as follows: \$67,697 for administration of the Program; \$268,000 for non-matching funds for lignite marketing feasibility studies (LMFS); \$29,409 in uncommitted funds for small research projects; a balance of \$0 for the joint programs with the U. S. Department of Energy, Electric Power Research Institute and other entities; and \$7,689,802 for demonstration projects. Construction commitments for the Lignite Vision 21 projects will be funded from the demonstration projects line item.

Lignite Research, Development and Marketing Program Updates

Ness said that there are currently 27 Lignite Research, Development and Marketing Program projects: two lignite marketing feasibility studies (LMFS), 19 small research projects and six demonstration projects. He said that in year nine (2005), Partners for Affordable Energy's (PAE) marketing efforts have included image advertising on television in Minnesota and North Dakota. PAE web site visits from January through June 2005 have shown an 80% increase over the number of visits in 2004.

Ness said that from 1987 to the present, there have been 116 small research projects totaling \$12.4 million in NDIC funds, 11 demonstration projects (excluding Lignite Vision 21 Program projects) totaling \$13.6 million in NDIC funds, and two Lignite Vision 21 Program projects totaling \$11.6 million in NDIC funds. The two Lignite Vision 21 Program projects under contract with the ND Industrial Commission are the Montana-Dakota Utilities Co./Westmoreland (Gascoyne) project and the Great Northern Power Development (South Heart) project.

Grant Round LIV (54) Grant Application LRC-LIV-A: "Lignite Coal Test at a Circulating Fluid Bed Facility"; Submitted by: Basin Electric Power Cooperative; Principal Investigator: Mike Paul; Request for: \$275,000; Total Project Costs: \$550,000; Project Duration: 7 months.

Ness said that the objective of the proposed project is to conduct a continuous 10-day test using a vendor circulating fluid bed combustion (CFBC) and a high sodium (8% or more) to identify potential agglomeration or steam tube fouling. Operational and design parameters will be identified to define information needed for a full-scale CFBC unit that can be used to repower an existing lignite-fired power plant.

Ness said that the three technical peer reviewers gave the proposal an average weighted score of 174 out of 250 points. (The weighted scores were 180 out of 250 points from reviewer 05-10, 175 out of 250 points from reviewer 05-11, and 167 out of 250 points from reviewer 05-12.) Technical peer reviewers 05-10 and 05-11 recommended that the project be funded; technical peer reviewer 05-12 recommended that funding be considered.

As technical advisor, Ness said that his recommendation is that the proposal be funded at a level not to exceed \$275,000, and that the contingency be confirmation of industrial cost share.

Ness said that the conflict-of-interest parties for this proposal are Basin Electric Power Cooperative, Great Northern Power Development and Minnkota Power Cooperative.

Mike Paul of Basin Electric Power Cooperative gave a presentation in support of the proposal.

Grant Round LIV (54) Grant Application LRC-LIV-B: "Investigating the Importance of the Mercury and Selenium Interaction"; Submitted by: Energy & Environmental Research Center; Principal Investigator: Nicholas V. C. Ralston; Request for: \$55,000; Total Project Costs: \$385,000; Project Duration: 24 months.

Ness said that the proposed project describes an effort to demonstrate that selenium levels must be considered when evaluating the toxic effects of mercury. The project will determine the interactions between mercury and selenium in animal models, comparing results to an ongoing Seychelles study that is being done by others. The proposed studies will examine the effects of dietary intakes of methylmercury and the protective effects of dietary selenium in order to resolve important questions regarding the significance of mercury-selenium interactions in human health. The technical peer reviewers gave the proposal an average weighted score of 162.7 out of 250 points. (The weighted scores were 151 out of 250 points from reviewer 05-13, 167 out of 250 points from reviewer 05-14, and 170 out of 250 points from reviewer 05-15.) Reviewer 05-14 and reviewer 05-15 recommended that funding be considered. Reviewer 05-13 recommended that the project not be funded.

As technical advisor, Ness said that his recommendation is that the proposal not be funded. There are no lignite industry funding participants.

Ness said that there are no conflict-of-interest parties for this proposal.

Nicholas V. C. Ralston, of the Energy & Environmental Research Center (EERC), gave a presentation in support of the proposal.

Mercury Research Update

Steve Benson of EERC gave a presentation concerning NDIC-funded mercury R&D projects and tests being done at North Dakota power plants.

2005 National Energy Policy Act Signed 8/8/05; Projects Announced 8/9/05 at Coal Creek Station

While the LRC members' ballots were being tabulated, Dwyer said that the 2005 National Energy Policy Act was signed into law by President George W. Bush on August 8th. Lignite will have the same opportunities as subbituminous and bituminous coals for clean coal technology funding, and there is a provision in the bill for North Dakota lignite-based mercury research.

John Weeda said that Great River Energy's Coal Creek Station held a ceremony on August 9th to announce three major projects for Coal Creek Station. They are an ethanol plant, a coal-to-diesel fuel plant and a coal-drier project.

Ballot Results

Dwyer announced that the LRC members voted as follows to recommend that the NDIC approve funding of the two Grant Round LIV (54) requests:

Grant Round LIV (54) Grant Application LRC-LIV-A: "Lignite Coal Test at a Circulating Fluid Bed Facility":

- Fund: 19 votes.
- Do not fund: 0 votes.

Grant Round LIV (54) Grant Application LRC-LIV-B: "Investigating the Importance of the Mercury and Selenium Interaction":

- Fund: 11 votes.
- Do not fund: 8 votes.

NDIC Meeting – August 23, 2005

The LRC's recommendations for the two Grant Round LIV (54) requests will be considered by the NDIC at its meeting on August 23, 2005.

Remaining Grant Round Deadline for 2005; Next Lignite Research Council Meeting

Dwyer said that October 1st is the remaining grant round deadline date for 2005. The next LRC meeting is scheduled for 12:00 p.m. November 17, 2005 at the Doublewood Inn, Bismarck, ND.

Adjournment

There being no further business, Dwyer requested a motion to adjourn the LRC meeting. Dean Peterson so moved; seconded by Mike Hummel. Motion carried.

Vicki Gilmore, Recording Secretary
