

**MEETING MINUTES  
LIGNITE RESEARCH COUNCIL  
December 19, 1996  
Kelly Inn, Bismarck, ND**

**LIGNITE RESEARCH COUNCIL MEMBERS (or alternates) PRESENT:**

John W. Dwyer, Chairman, Lignite Research Council  
Gordon Westerlind, United Power Association  
Dick Bergstad, I.B.E.W. # 714  
Jeff Reinke, Dakota Resource Council  
Ken Zagzebski, Northern States Power  
Marlowe Johnson, Otter Tail Power Company  
Bruce Hagen, North Dakota Public Service Commission  
Curt Blohm, Knife River Coal Mining Company  
Mike Hummel, BNI Coal, Ltd.  
August Keller, The North American Coal Corporation  
Doug Kane, MDU Resources Group  
John Bluemle, North Dakota Geological Survey  
Valdon Swanson, North Dakota Farm Bureau  
Russ Nelson, Cooperative Power  
Rich Fockler, Basin Electric Power Cooperative  
David Sogard, Minnkota Power Cooperative

**OTHERS PRESENT:**

Ed Englerth, Public Service Commission  
Warren Enyart, Technology Transfer  
Karlene Fine, Industrial Commission of North Dakota  
Clifford R. Porter, Lignite Research Council Director and Technical Advisor  
Vicki Gilmore, Lignite Energy Council

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Lignite Research Council Chairman John W. Dwyer called the Lignite Research Council meeting to order at 9:00 a.m. December 19, 1996.

Bruce Hagen and Dwyer praised Ed Englerth, who is retiring as director of the reclamation division of the Public Service Commission.

**Approval of Minutes**

Dwyer called for a motion to approve the minutes of the October 15, 1996 Lignite Research Council meeting. Hagen moved to approve the minutes and Rich Fockler seconded the motion. Motion carried.

**Financial Update**

Karlene Fine summarized the financial update in Section II of the LRC meeting book. Funding available for Demonstration Projects is \$3,148,410. Fine said \$125,000 of this may be committed to some of the other ongoing projects, but there is currently no contract in place, nor have cooperative agreements been made with EERC, EPRI or DOE. Therefore, the \$125,000 was not subtracted from the funding available. For Marketing Feasibility Studies, there is \$64,719 available for this biennium for non-matching marketing feasibility studies. \$715,148 is available this biennium for Small Research Projects. \$825,000, if needed (from Research Project funds or Demonstration Projects funds) has been committed by the Lignite Research Council and the Industrial Commission to the Regional Lignite Energy Marketing Plan. Fine said the \$825,000 is not reflected in her report.

Fine said a transfer of funds to the 1995-1997 Lignite Research Program administrative budget may be required at the next Lignite Research Council meeting in March 1997.

## **Program Updates**

Dwyer asked Clifford R. Porter to present updates on the programs. Porter said the DGC Anhydrous Ammonia Project, a Demonstration Project, is in its shakedown stages now and is nearing completion. The most recent estimated total project cost for this project is in the neighborhood of \$112 million. Concerning the other Demonstration Project, the SynCoal Transloading System project, Mike Hummel reported the project is moving forward, engineering and financing are moving on parallel paths now, and initial production is planned for June 1998.

Porter discussed two Lignite Marketing Feasibility Studies. The first is by ENSR Consulting and Engineering: LMFS-96-22 – “A Survey: Mercury Emissions from North Dakota Lignite-Fired Power Plants”. The project has been extended and ENSR is starting to complete its review of the Science Advisory Board documents. The second study, by Roth Associates, is LMFS-96-23: “A Survey of Health Effects: Mercury Emissions from North Dakota Lignite-Fired Power Plants”. Dr. H. Daniel (Neil) Roth has made arrangements to present his information before the Science Advisory Board and is in close contact with them. He recently presented his findings to the Society for Risk Analysis. Porter said Roth’s findings drew interest from various parties, including the EPA.

Porter said information concerning mercury and human health effects from mercury is geared around two key, ongoing studies - the Seychelles Islands study and the Faroe Islands study. In the Seychelles Islands study, he said no clear relationship has been found between the mercury levels from fish consumption and any discernible health effect. In the case of the Faroe Islands, studies show a relationship between umbilical cord mercury content and child response behavior at age 18 months or 19 months. Porter said there is quite a lot of difference between the Seychelles and Faroe societies’ habits and diets. The studies are continuing.

Concerning Research Program Activities (Small Projects), Porter said he did some adjusting of which category some of the projects fall under, because some projects fit into more than one category. Funding is available in most areas. Areas in which additional projects are encouraged are the Environmental, Combustion and Beneficiation areas. Porter said there is not a great deal of money left over in the Byproducts area.

## **Minnesota PUC Externality Decision**

Dwyer said that on December 18, 1996, the Minnesota Public Utilities Commission handed down its externality decision. He said initial indications are that North Dakota lignite plants are exempt from all criteria pollutants. More significantly, the CO<sub>2</sub> penalty will not apply to plants that are 200 miles or farther from the Minnesota border. The Minnesota PUC has provided an exemption for North Dakota facilities, or all facilities planning additions in the coal fields in North Dakota. This provides a competitive advantage for facilities in North Dakota because facilities in Minnesota will be subjected to the CO<sub>2</sub> penalties, whereas the facilities in North Dakota will not. Dwyer asked Lignite Research Council members to thank Attorney General Heidi Heitkamp for her efforts on the externality case. August Keller said Heitkamp, the Industrial Commission and the Attorney General’s office did a good job in this effort, and he also thanked the Lignite Energy Council for coordinating the effort.

## **Future Grant Rounds; 1997 LRC Meetings**

Porter asked Lignite Research Council members to remind their research people about deadlines for 1997 grant rounds that have been scheduled to date: February 1 (Grant Round XXVII), June 1 (Grant Round XXVIII), and October 1 (Grant Round XXIX). He said grant applications are especially encouraged in the areas where funds are available.

Dwyer said the Lignite Research Council will meet jointly in noon luncheon meetings with the Lignite Energy Council Executive Committee in 1997 as follows: March 20, July 24 and December 4. Each of the three joint luncheon meetings will be followed at 1 p.m. by a meeting of the Lignite Research

Council only.

### **1997 Legislative Items**

Karlene Fine said Governor Schafer included in the Executive Budget for the 1997-1999 biennium the proposed budget amount (\$13,430,280) for the Lignite Research, Development and Marketing Program. She said there had been updates on additional production, so there may be more carryover dollars. She may be amending the proposed budget figure during the 1997 Legislative Assembly process because there were more additional carryover dollars than anticipated. At this time the Governor has included the entire amount in the Executive Budget, and he did not include anything that we had not anticipated, she said. Fine mentioned that at the time of the 1995-1997 Executive Budget there was a change because of the Land Reclamation Research Center, but that has not been done this time.

In addition, Fine said the breakdown of the Lignite Research, Development and Marketing Program administrative budget is listed in the LRC meeting books. She said there is no need to act on it since the LRC already did so.

Dwyer said that for the 1997 Legislative Session, in addition to the appropriation bill that includes funding for the Lignite Research, Development and Marketing Program, there also will be an Industrial Commission bill that is basically an amendment to extend the Lignite Research, Development and Marketing Program beyond the year 2000.

### **Grant Round XXVI Grant Application**

**LRC-XXVI-A: “Market Assessment and Demonstration of Lignite FBC Ash in Flowable Fill Applications”; Submitted by Montana-Dakota Utilities; Request for \$37,319; Total Project Costs: \$152,633; Principal Investigator: Duane O. Steen.**

Porter said the purpose of the 2-year project is to assess and develop the market for use of fluidized bed combustion ashes in the construction industry. This project is one of a series of byproducts studies. It is a continuation of the previous MDU/Western Research Institute work on the use of fluidized bed combustion ash in a controlled low strength flowable fill construction material. Porter, as Technical Advisor, recommended the project be funded. Two of the three Technical Reviewers recommended funding, and one recommended that funding be considered. Porter said potential conflict-of-interest parties are MDU Resources Group, Inc. and Knife River Coal Mining Company.

Hagen said the PSC’s abandoned mine land division has been using lignite ash in mixtures with cement to fill underground mines. He said it works well, is low in cost and has benefited that whole program.

### **Balloting on LRC-XXVI-A - “Market Assessment and Demonstration of Lignite FBC Ash in Flowable Fill Applications”**

The Lignite Research Council vote on grant application LRC-XXVI-A was 16 to 0 (16 Fund and 0 Do Not Fund). The recommendation to fund the project will be presented to the December 16, 1996 meeting of the Industrial Commission.

### **Other Matters**

Dwyer said Chuck Reichert of BNI Coal, Ltd. had contacted him on December 18, 1996 to arrange a conference call for December 20, 1996 between Reichert, Dwyer, Porter and some of the SynCoal partners concerning funding for the Center SynCoal project (LRC-XVII-C: □SynCoal Truck to Rail Transloading System□.) Dwyer said he will arrange a conference call with the Lignite Research Council Executive Committee so they may make a recommendation, then take that recommendation to the Industrial Commission meeting on December 31, 1996. He said the funding proposed in the amended grant application would not change the amount of the commitment, but it might change the

specific areas to help the economics of the project in Phase I as opposed to Phase II. Keller said there were some caveats on the original grant proposal. Dwyer said those caveats will be considered by the LRC Executive Committee before they vote.

**Adjournment**

There being no further discussion, the meeting was adjourned. Motion by Keller; seconded by Doug Kane. Motion carried.

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Vicki Gilmore, Recording Secretary