

MPUC Docket No. E-6472/GS-06-668
OAH Docket No. 12-2500-17512-2

BEFORE THE
MINNESOTA OFFICE OF ADMINISTRATIVE HEARINGS
100 Washington Square, Suite 1700
Minneapolis, Minnesota 55401-2138

FOR THE
MINNESOTA PUBLIC UTILITIES COMMISSION
127 7th Place East, Suite 350
St. Paul, Minnesota 55101-2147

In the Matter of a Joint LEPGP Site Permit,
HVTL Route Permit and Pipeline (Partial Exemption)
Route Permit Application for the Mesaba Energy Project

PREPARED DIRECT TESTIMONY AND EXHIBITS OF
EXCELSIOR ENERGY INC., MEP-I LLC, AND MEP-II LLC

DAVID M. MCKENZIE

JANUARY 16, 2007

1 **EXCELSIOR ENERGY, INC.**

2 **BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION**

3 **PREPARED DIRECT TESTIMONY OF**

4 **DAVID M. MCKENZIE**

5 **Q Please state your name, current employment position and business address.**

6 A David M. McKenzie. I am a Professional Engineer with Short Elliott
7 Hendrickson Inc. (“SEH”), a consulting firm of engineers, architects, planners, and
8 scientists with offices in 10 states throughout the Upper Midwest and Rocky Mountain
9 regions. In my current position, I am Project Manager for railroad and track related
10 projects. My business address is 3535 Vadnais Center Drive, St. Paul, Minnesota 55110.

11 **Q Would you please describe your educational and professional background.**

12 A I hold a Bachelor of Civil Engineering degree from the University of Minnesota.
13 I have completed graduate work in Transportation Planning from the University of
14 Minnesota. I have more than 25 years of experience in the railroad industry and have
15 extensive experience in track design, estimating and operations. Previous to SEH, I was
16 a Project Manager at the Minnesota Department of Transportation responsible for
17 railroad grade crossing safety and railroad track rehabilitation projects. My resume is
18 appended as Exhibit ___ (DMM-1).

19 **Q On whose behalf are you testifying?**

20 A I am testifying on behalf of MEP-I LLC, MEP-II LLC, and Excelsior Energy Inc.
21 (collectively “Excelsior”), the developers of the Mesaba Energy Project (the “Project”).

1 Scope and Summary

2 **Q What is the scope of your testimony in this proceeding?**

3 A The purpose of my testimony is to sponsor several sections of Excelsior’s Joint
4 Application and Environmental Supplement. The subject of my testimony is railroad
5 alignment.

6 In particular, I am sponsoring the following sections:

7 **Joint Application**

8 Section 3.5.2 (Rail)

9 Section 7.10.3 (Railroad – West Range)

10 Section 8.10.2 (Railroad – East Range)

11 **Environmental Supplement**

12 Section 1.12.3.1 (Rail)

13 Section 2.12.1.1.3 (Rail Line)

14 During the preparation of the Joint Application and the Environmental
15 Supplement, I worked closely with Excelsior in drafting and reviewing these sections.
16 The sections incorporate field reports and analysis that I prepared or that SEH personnel
17 under my supervision prepared.

18 Joint Application and Environmental Supplement

19 **Q Please briefly describe the information contained in the sponsored Sections of the**
20 **Joint Application and Environmental Supplement?**

21 A The sections discuss the necessity of rail service to the Project and provide much
22 detail regarding the issues involved with connecting the project to existing rail lines.

1 As an initial matter, because coal delivery is necessary to the Project, access to
2 rail service was an important consideration in the site selection process. In addition,
3 access to more than one railroad company is an important consideration in an effort to
4 reduce costs for electric ratepayers. The West Range IGCC Power Station location
5 provides the best access to two competitive rail carriers.

6 Three major design criteria are used to site a unit coal train unloading facility.
7 First, the train must be safely clear from the mainline track during unloading operations.
8 Second, coal trains can move most efficiently over track that has a minimal degree of
9 curvature. Third, the weight of coal trains makes track profile grade important.
10 Excelsior took these three factors, among others, into consideration during the site
11 selection process.

12 Finally, to account for these considerations and to reduce environmental and
13 engineering burdens, Excelsior considered a number of railroad alignment alternatives.

14 **Q What are some considerations on railroad alignment that Excelsior has identified to**
15 **reduce environmental impacts?**

16 A Excelsior wanted to utilize existing lines that could accommodate shipments of
17 coal. This reduces the need for new track construction. The proposed alignment
18 minimizes the impacts to wetlands and water bodies but maintains the critical
19 engineering criteria necessary to accommodate unit coal trains.

20 **Q Has Excelsior identified an alternative that meets acceptable alignment, grade and**
21 **rail operations criteria?**

22 A. Yes. For the proposed West Range IGCC Power Station location, Alternative
23 1-A, as described in Section 3.5.2.2.4 of the Joint Application and 1.12.3.1 of the

1 Environmental Supplement, meets acceptable alignment, grade, and rail operations
2 criteria as well as being the best alternative to reduce environmental impacts. For the
3 proposed East Range IGCC Power Station location, Excelsior has identified two
4 alternatives; Alternative 2 has certain environmental advantages while Alternative 1 has
5 certain operational advantages, as described in Section 1.12.3.1.3A(1)(c) of the
6 Environmental Supplement.

7 Supplements and Clarifications

8 **Q Are there any parts of the sections that you have sponsored that you would like to**
9 **supplement or clarify at this time?**

10 A Not at this time. However, I am available to answer questions regarding the
11 sponsored sections of the Joint Application and Environmental Supplement.

12 Conclusion

13 **Q Does this conclude your testimony?**

14 A Yes.

EXHIBITS

EXHIBIT ___ (DMM-1)

Education
*Bachelor of Science
Civil Engineering
University of Minnesota (1975)*
*Transportation Planning Graduate
School
University of Minnesota (1976)*
*Systematic Development of
Informed Consent (SDIC) 1993*

Professional Associations
*Professional Engineer in
Minnesota
Northwest Maintenance of Way*

David McKenzie, PE
Professional Engineer

General Background

Mr. McKenzie is a Project Manager for railroad-track related projects. His duties include track design, grade crossing safety, permits, train operation analysis, and railroad negotiations. Dave has extensive knowledge of track design, construction, estimating, operations and negotiations. With more than 25 years of experience in the railroad industry, Dave has gained an understanding of how railroads operate and has developed relationships with most of the railroads in the Upper Midwest. He was previously employed by Mn/DOT and Railroad Service Inc.

Mr. McKenzie was the task leader for all railroad track design issues. His responsibilities included evaluating potential sites for compatibility for railroad access. This included track layouts, track profiles, railroad connections and coal dumper locations. Meetings were held with both the BNSF Railway and the Canadian National Railroad.

Experience

Mesaba Energy IGCC Project – Taconite, Minnesota. Project Manager for the feasibility and alternative analysis of a railroad track alignment to serve a 1,212 MW integrated gasification combined cycle coal gasification facility. The 3 mile layout included a loop track to accommodate a 135 car unit coal train. The alignment provided access from two different railroads.

Mesaba Energy IGCC Project – Northern, Minnesota. Project Manager for the evaluation of railroad options at 5 different locations in northern Minnesota for an integrated gasification combine cycle coal gasification facility. Railroad access is critical for the delivery of coal into this facility and as potential sites were identified, rail access options were developed to determine if these sites were viable from a railroad point of view.

Itasca County – Public Support Infrastructure for MSI – Nashwauk, Minnesota. Conduct an investigation for the public support infrastructure including preliminary engineering and site evaluation, for railroad access to the first U.S. fully integrated sheet mini-mill that incorporates a new taconite iron ore mine, concentrator, pelletization plant, direct reduction iron (DRI) facility, melting furnace, and hot strip mill to produce high quality steel slab. The study included an alternatives analysis of six different alignments. The preferred option includes 8 miles of new lead track and 12 miles of yard support track.. the study also evaluated options to operate the new railroad facility.

Duluth Seaway Port Authority – Railroad Track Design – Duluth Minnesota. Project Manager for the preliminary and final design of 4 miles of new track construction and relocation to accommodate a new



access road. The work involved negotiated agreements with 2 railroads, 5 shippers and 3 government agencies.

Railroad Track Design, Twin Cities & Western Railroad – Glencoe, Minnesota. Assisted the Twin Cities & Western Railroad with preliminary plans for construction of a new six track switching yard in Glencoe to enable the consolidation of their switching activities.

Railroad Track Design, Marna, Minnesota – Cargill Inc. Railroad track design for a track expansion at a Cargill grain elevator. Work included field evaluation of existing track, review of switching operations, design of 10,000 feet of track and discussions with the Union Pacific Railroad regarding operations.

Railroad Track Design, Duluth Minnesota – Duluth-Superior Metropolitan Interstate Committee. This planning study was to determine the feasibility of adding a second access roadway into the Port of Duluth. Every alternative would include the relocation and disruption of railroad service in the Port area. The study evaluated these impacts and suggests ways to improve rail for access into several existing railroad customers.

Track Rehabilitation Specification, Minneapolis, Minnesota – Mn/DOT. Project Manager for evaluation of 2.5 miles of abandoned track and author of a rehabilitation specification for a construction contract. Work included meeting with three railroads to develop an acceptable level of reconditioning.

Experience prior to joining SEH

Mn/DOT

Minneapolis, Minnesota. Project Manager for railroad negotiations between the City, Mn/DOT, and the Railroad for the relocation of major yard facilities to allow for reconstruction of Highway 55. Work included redesign of existing railroad operations, defining environmental concerns, understanding community sensitive to railroads, and railroad crossing safety issues.

St. Paul, Minnesota. Technical Representative for the Minnesota Intermodal Railroad Terminal Study Steering Committee, Phase 2. The study determined the feasibility to construct a multi-user intermodal facility in the Twin Cities area.

Other Employment

Prior to Mn/DOT, Dave worked for two construction companies that specialized in track construction and rehabilitation. His roles included construction management, design, cost estimating and scheduling. During these 15 years, he was involved in constructing track into 6 coal fired power plants, 2 coal mines, several industrial parks and military bases.

