EXCELSIOR ENERGY INC.

Robert S. Evans II
Excelsior Energy Inc.
11100 Wayzata Blvd, Suite 305
Minnetonka, MN 55305

November 7, 2006

Mr. William C. Storm
Department of Commerce
85 7th Place East, Suite 500
St. Paul, MN 55101-2198

RE: MPUC Docket No. GS06-668
Public comments on scope of Environmental Impact Statement ("EIS")

Dear Mr. Storm:

I have enclosed Excelsior Energy Inc.'s responses to public input recorded during i) the EIS scoping meetings held August 22nd and 23rd in support of the Mesaba Energy Project ("Project") and ii) the time the record remained open thereafter to receive additional written comments. We have divided the public's input into questions and comments and have grouped the items within each such category according to our best judgment of divisions in subject matter. In our responses to each question/comment we have generally tried to reference i) pertinent sections of applications Excelsior has submitted in support of the Project, ii) testimony submitted in support of MPUC Docket No. E-6472/M-05-1993, and/or iii) other helpful documents.

Please call me if you have any questions or comments with respect to the attached document.

Thank you.

Sincerely,

Robert S. Evans II

enclosure
cc Matthew Seltzer, Esq.

Excelsior Energy has prepared responses to the public comments filed on Sept. 6, 2006 during the scoping phase of the environmental review process for the Mesaba Energy Project. The questions and comments included below are those most commonly raised, each of which is followed by Excelsior's response.

Questions/Requests

Question 1: ***How will hazardous wastes (specifically the "salts" produced by the Mesaba Energy Project's zero liquid discharge ["ZLD"] system) be transported and disposed?***

Excelsior Response: The ZLD salts produced as a result of eliminating process water discharges produced in the gasification island are expected to be regulated as hazardous waste under RCRA Subtitle C. This is due to the presence of leachable toxic metals that may exceed the Toxicity Characteristics established under 40 CFR 261.24(a).[1] As a result of exceeding such thresholds, ZLD salts produced in the gasification island will be disposed of at an EPA-certified hazardous waste landfill.[2]

Due to the small quantity of hazardous wastes produced (estimated at about 2,200 tons/yr for each phase), transportation is most likely to occur by truck. Transportation will be carried out in accordance with all applicable regulations governing hazardous wastes. Note that the additional ZLD salts that will be produced from cooling water at the East Range site are expected to be classified as non-hazardous waste that can be disposed of in a licensed industrial solid waste landfill.

Question 2: ***What will be the cumulative effects with other local industries?***

Excelsior Response: This analysis is currently being performed and will appear in the Draft EIS to be released to the public early next year.

Question 3: ***Please provide a safety program and emergency action plan.***

Excelsior Response: The design of the Project will comply with all applicable Occupational Safety and Health Administration (OSHA) regulations established for the protection and safety of workers and with regulations applying to the Emergency Planning and Community Right-to-Know Act. Emergency response plans will be developed in coordination with state and local responders. See Environmental Supplement, Sec. 1.8.10.

---

[1] The regulatory thresholds established at 40 CFR 261.24(a) are used to differentiate solid wastes from hazardous wastes. Such thresholds include leachable concentrations that have been set for the following trace metals: arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver, Actual data obtained from use of the Toxicity Characteristic Leaching Procedure (TCLP) show that the ZLD salts produced as a result of gasifying petroleum coke have concentrations of arsenic and selenium that slightly exceed the regulatory thresholds.

[2] One of the closest hazardous waste landfills is located in Peoria, Illinois.

Question 4: What will be the impacts to recreational land use and tourism revenue?

Excelsior Response: Land use impacts will be largely limited to the IGCC Power Station Footprint and Buffer Land, where hunting, snowmobiling, etc., will no longer be allowed. At the West Range site, Excelsior has requested that the Canisteo Mine Pit be closed to recreational activities for safety, security and operational considerations.

The effects on regional tourism revenue are expected to be negligible. See Environmental Supplement, Sec. 3.7.

Question 5: What will the impacts of coal dust be?

Excelsior Response: Coal dust will be controlled during its transport, storage, and handling. Coal dust is of greatest concern during handling operations, especially loading and unloading train cars. Mesaba One and Mesaba Two will feature a partially enclosed rotary car dumper building designed with dust suppression sprays to mitigate releases of coal dust during the unloading process. Coal dust emissions may occur to a lesser degree during transport and storage. To mitigate this risk, a coal dust suppressant is applied to loaded coal train cars prior to transport and to the coal pile storage at the IGCC Power Station.

Material handling systems that generate particulate matter emissions on the IGCC Power Station footprint are described in Section 4.1.5 of Excelsior's application to the Minnesota Pollution Control Agency ("MPCA") for a New Source Review Construction Authorization Permit (the "Air Permit Application"). A similar discussion is included in Section 3.4.1.1.5 of Excelsior's Joint Application to the Minnesota Public Utilities' Commission.

The impacts of fugitive coal dust emissions on ambient air quality are minimal, and are described in Section 7 of Excelsior's Air Permit Application.

Question 6: What is the impact of increased mineralization of receiving waters? Will local groundwater be contaminated?

Excelsior Response: Excelsior has submitted to the MPCA a National Pollution Discharge Elimination System ("NPDES") permit application (please refer to that document for in-depth coverage of this issue). This permitting program is designed to prevent degradation of local surface and groundwater that could occur as a result of wastewater discharges.

Virtually no new minerals will be added to area waters by discharging cooling tower blowdown from the IGCC Power Station; however, since cooling towers evaporate water, the mineral concentration in such discharges will be higher than the concentrations of minerals in receiving waters. The only potentially affected water bodies include the Canisteo Mine Pit ("CMP"), Holman Lake, and, theoretically, the Swan River. As the CMP has no existing surface outlet, mineral concentrations and water hardness would

gradually increase over 30 years. The extent to which such increases will be allowed will be addressed as part of the permitting process.

The link between the CMP and local municipal water supplies appears limited based on anecdotal evidence obtained during times when the CMP was being dewatered (such evidence fails to show any adverse impact on existing municipal wells nearby the CMP).

During operation of the Mesaba Energy Project, water levels in the CMP will be kept below levels believed to contain major bedrock fractures. This is expected to preclude local impacts that are now being reported and tied to rising CMP water levels.

As a result of the information presented above, the Project's use of CMP waters will not significantly impact nearby municipal wells.

Question 7: Please evaluate carbon capture, transport, and sequestration in the EIS.

Excelsior Response: Excelsior has recently submitted its "Plan for Carbon Capture and Sequestration" as part of its testimony in MPUC Docket No.E-6472/M-05-1993. This information has been provided to the Department of Commerce and the U.S. Department of Energy for purposes of being included in the Draft EIS to be released to the public early next year.

Question 8: How will the process water be treated so that it will not 'routinely violate' its wastewater discharge permits, as did the Wabash River Coal Gasification Repowering Project ("Wabash River")?

Excelsior Response: Before installing a ZLD system to treat process water produced by the gasification island (the gasification island is where water comes into direct contact with feedstocks and syngas fuel), the Wabash River plant did have some initial wastewater discharge permit violations. However, since installing a ZLD system to eliminate discharge of such process waters, the Wabash River plant's wastewater discharges have been in compliance with permit conditions. By its very nature, a ZLD system ensures no release of process waters from the gasification island. Excelsior will initially engineer and subsequently install a ZLD system for treating process waters produced in the gasification island.

Question 9: How will impacts on wetlands be mitigated?

Excelsior Response: Excelsior is preparing a wetlands permit application to the U.S. Army Corps of Engineers wherein the Company will describe the steps it has taken to avoid and minimize wetland impacts associated with the layout of the Project's facilities and its options for mitigating such unavoidable impacts.

Steps already taken by Excelsior to avoid wetland impacts include locating the Mesaba One and Mesaba Two footprints in a manner that minimized the number of wetland acres

affected and routing transmission lines and other infrastructure away from wetlands where feasible.

The impacts of HVTL routes to wetlands are mostly temporary and minimal because the lines are suspended between towers. Likewise, pipelines will be buried and will be directionally drilled under wetlands when feasible. Temporarily affected wetlands will be restored as quickly as possible.

For permanently affected wetlands, offsets will be achieved through restoring nearby wetlands or the purchase of wetland banking credits through an approved wetlands bank. See Environmental Supplement, Sec. 3.6.4 and 3.6.5.

Question 10: Do the proposed sites have adequate infrastructure?

Excelsior Response: Both sites are excellent candidates from the standpoint of existing infrastructure. See Environmental Supplement, Sec. 1.11-1.14 for detailed descriptions of the preferred and alternate sites, their associated infrastructure, and the criteria used in narrowing the number of sites considered.

Question 11: What effect will lights from the IGCC Power Station have on night skies?

Excelsior Response: FAA regulations may require the tank vent boiler stack to be lighted to avoid being a hazard to air navigation; other structures will be lighted for security reasons. This is likely to minimally impact the night sky visibility for nearby residents and drivers. Excelsior will develop a Power Station lighting plan during the Front-End Engineering and Design (FEED) process, and will consult with local municipalities (City of Hoyt Lakes/Taconite) while developing that plan. See Environmental Supplement, Sec. 3.1.2.1.2-3 and 3.1.3.1.2-3.

Question 12: What will be the effects of increased rail traffic on emergency vehicle response?

Excelsior Response: The IGCC Power Station will be supplied by unit coal trains which would take between 3 and 4 minutes to clear a city road crossing. Mesaba One and Two will require 1-2 unit trains of coal per day, resulting in a maximum of four unit train crossings per day. On average, if an emergency vehicle must cross the tracks, the chances of a delayed response would be about 1%; when a delay does occur, the average duration would be approximately 2 minutes.[3] For each site one nearby city would be affected: Grand Rapids at the West Range and Aurora at the East Range.

---

[3] An 8,000 ft unit train traveling at 25 mph would require about 3 min, 38 seconds to clear a highway crossing. A typical 'thumb wheel' setting – the warning period where the arms drop before the train begins to cross – is about 25 sec. Thus the maximum delay would be about 4 minutes, with an average delay of 2 minutes. This corresponds to half of the average crossing time. Given that up to 4 unit train crossings (2 loaded trains and 2 unloaded trains) could occur in one day, the chance of being delayed is as follows:

(4unit train crossings*4 minutes/crossing)÷1440 minutes/day= 0.011 or 1.1%

Question 13: It would be helpful to see the emissions of Mesaba One and Mesaba Two compared to an existing taconite plant.

Excelsior Response: The following table shows a comparison for several existing taconite plants in the region. In most cases, Mesaba's emissions are less than those of the taconite plants. Criteria emissions are from EPA's 2004 Air Data National Emissions Inventory (http://www.epa.gov/oar/data/neidb.html) and mercury data is from the MN Dept. of Natural Resources report entitled "Mercury and Mining in Minnesota," revised in October 2003.

Facility Name	NO_X (tpy)	PM_{10} (tpy)	SO_2 (tpy)	Hg (lb/yr)
Hibbing Taconite Co	6,190	1,250	518	96.7
United Taconite LLC - Fairlane Plant	2,200	658	2,500	47.8
US Steel - Keewatin Taconite	5,930	1,520	690	54.7
US Steel Corp - Minntac	12,500	8,870	1,980	78.0
Northshore Mining Co - Silver Bay	4,080	706	2,880	7.5
Mesaba One	1,280	180	561	27.0
Mesaba One & Two	2,560	360	1,120	54.0

Question 14: The following issues were not adequately covered in the permit applications:

a. Flare emissions

b. Cooling tower emissions

Excelsior Response: Detailed explanations of these issues can be found in Sections 4.1.3 and 4.1.6 of Excelsior's Air Permit Application.

Comments

Comment 1: There is no such thing as 'clean coal.'

Excelsior Response: Clean coal is a term of art, referring to technologies that substantially reduce emissions compared to conventional coal plants. As the Mesaba Energy Project will be among the cleanest coal-fueled plants in the world, it is an outstanding example of clean coal technology.

Comment 2: The financial burden being placed on local government is too great.

Excelsior Response: The financial outlook for local government with regards to this project is strongly positive. The jobs and derivative economic activity generated by Mesaba One and Mesaba Two will increase local government revenues[4] and provide needed job creation throughout the Arrowhead Region.

The claimed 'burden' on local governments from bonds issued in support of the Itasca County Infrastructure Project ("ICIP") is non-existent. The monies allocated for the ICIP represent a grant from the State in the form of general obligation bonds issued under authority of Article XI , § 5(a) of the Minnesota Constitution. Such bonds are not direct obligation bonds imposed of Itasca County or local units of government. Rather, these bonds are secured by the taxing power of the entire State.

Comment 3: Building a power plant on the Iron Range is not consistent with the abundance of pristine lakes and forests in the area.

Excelsior Response: Although the Iron Range is blessed with a wealth of natural beauty, it is a region in which heavy industrial operations have been conducted for a long time period. Both proposed IGCC Power Station sites are presently zoned to support heavy industrial operations.

Excelsior has proposed the cleanest coal-fired technology in the world and believes this choice for Mesaba One and Mesaba Two is consistent with the twin goals of environmental enhancement and job creation.

Of note, the Boswell Energy Center (located nearby the preferred West Range site) will be retrofitting its existing Unit 3 with new pollution control systems before Mesaba One is constructed. The combined emissions of the retrofitted Boswell Unit 3 and Mesaba One and Mesaba Two will be less than what Boswell Unit 3 currently emits today. This is true for SO_2, NO_X, and mercury as shown in the following table:

---

[4] *See* Executive Summary in "The Economic Impact of Constructing and Operating an Integrated Gasification Combined-Cycle Power Generation Facility on the Iron Range, UPDATE 2006: Mesaba One Impacts *Including Appendix A: Mesaba Two* Impacts," September 2006. University of Minnesota Duluth, Labovitz School of Business and Economics.

	Now: Boswell Unit 3 Pre-Retrofit	2009: Boswell Unit 3 Post-Retrofit	2010: Boswell Unit 3 & Mesaba One	2013: Boswell Unit 3 & Mesaba One & Two
Generation (MW)	350	350	950	1,550
SO2 (tons/yr)	12,100	1,160	1,720	2,280
NOx (tons/yr)	4,800	904	2,180	3,460
Mercury (lbs/yr)	100	10	37	64

Comment 4: CO2 capture is not possible at the proposed site.

Excelsior Response: As noted at Question 7, Excelsior has developed a Plan for Carbon Capture and Sequestration. The Plan indicates that the Mesaba Energy Project features a carbon capture adaptable plant design and that CO_2 capture is possible at either IGCC Power Station site. The captured CO_2 would be transported via pipeline to a location in North Dakota or Southeastern Manitoba for sequestering. Commercial demonstration of CO_2 sequestration is proven and is discussed in the testimony of Edward Steadman of the Energy & Environmental Research Center ("EERC"). (See Oct. 10, 2006 testimony of Edward N. Steadman, OAH Docket No 12-2500-17260-2, MPUC Docket No. E-6472/M-05-1993.) One such demonstration has occurred relatively close to the Iron Range at the Great Plains Synfuels gasification plant in Beulah, ND, which economically captures and transports CO_2 over 200 miles by pipeline for enhanced oil recovery in southeast Saskatchewan.

Excelsior is working closely with the EERC to identify CO_2 management plan options for the Mesaba Energy Project. The EERC manages the Plains CO_2 Reduction Project, one of seven regional initiatives commissioned by the Department of Energy to examine and facilitate the development of carbon capture and sequestration in the Northern Plains.

Comment 5: Mesaba will displace wind in southwest MN from the grid, as transmission capacity cannot handle both. Also, we should build wind instead of IGCC.

Excelsior Response: Connecting the Mesaba Energy Project to the grid will neither reduce wind generation nor its transmission to intended markets; expert testimony has attested to this fact. See Oct. 10, 2006 testimony of Stephen D. Sherner, OAH Docket No.12-2500-17260-2, MPUC Docket No. E-6472/M-05-1993). This misconception arose from misinterpretation of reports (specifically G477 and G519) prepared by the Midwest Independent System Operator ("MISO"), the entity responsible for the nondiscriminatory operation of the bulk electric power transmission system across 15 Midwest states

(including all of Minnesota) and Manitoba[5]. The base case of MISO's analysis (without Mesaba) shows transient voltage limit violations caused by wind generation in southwest Minnesota, and MISO chose to model a reduced output from that source in order to provide a realistic assessment of Mesaba impacts. This reduction in wind generation was simply utilized for initial modeling purposes. Potential wind curtailments will be avoided by network upgrades, regardless of whether or not Mesaba connects to the grid.

Excelsior supports building both wind and IGCC. Because IGCC provides base-load power and wind does not, use of the two technologies are not in conflict.

Comment 6: Local waters and fish will be contaminated by mercury from the IGCC Power Station.

Excelsior Response: IGCC technology enables the use of a superior mercury collection process compared to that available for use with conventional coal power plants. The activated carbon bed removal process to be used for Mesaba One and Mesaba Two has been proven to remove more than 90% of the mercury found in the coal[6]. Actual removal rates could be significantly higher, so mercury emissions from Mesaba One and Mesaba Two could prove to be less than the 54 lb/yr estimate presented in Excelsior's Air Permit Application. Even using this conservative figure, the risk for a subsistence fisherman (which represents the worst case as estimated by MPCA methodology) would be extremely small (*see* Excelsior's Joint Application to the MPUC, Section 7.4.6.5 for more information):

	Mercury Concentration in Fish Tissue (ppm)	Hazard Quotient From Consumption
Current Level	0.56	12.2
Increase from Mesaba	0.003	0.06

Comment 7: There is no 'acceptable risk.'

Excelsior Response: The MPCA has established methods to calculate risk and has identified threshold levels below which risk is not considered a concern. Excelsior has conducted an Air Emissions Risk Analysis according to MPCA guidelines, and the hazard indices were shown to be below such threshold levels for all cases. See Appendix E of the Air Permit Application for more information.

---

[5] To obtain a fact sheet identifying the region over which MISO exerts its control, see the following web site: http://www.midwestmarket.org/publish/Document/3e2d0_106c60936d4_-7ba50a48324a/Factsheet_0610_2f.pdf?action=download&_property=Attachment

[6] *See* "The Cost of Mercury Removal in an IGCC Plant", Final Report, September 2002. Prepared for U.S. Department of Energy, National Energy Technology Laboratory, http://www.netl.doe.gov/technologies/coalpower/gasification/pubs/pdf/MercuryRemoval%20Final.pdf

Comment 8: IGCC technology is unreliable and fraught with problems. The Wabash River plant is not operating as it should.

Excelsior Response: The Wabash River plant is currently operating successfully, as confirmed by the testimony of Thomas Lynch from ConocoPhillips. The E-GAS™ technology is well proven, having gasified over 7 million tons of solid fuel, including bituminous coal, subbituminous coal, and petroleum coke. See Oct. 10, 2006 testimony of Thomas A. Lynch, OAH Docket No. 12-2500-17260-2, MPUC Docket No. E-6472/M-05-1993.