



government. Resources must be available and safe to utilize for the exercise of these rights. Protection of the Reservation's environment and trust resources is

crucial for the health and welfare of the Reservation population and the traditional, cultural and spiritual well being of the Band.

While the Band is not opposed to pursuing energy and economic development opportunities, we believe that such development should only proceed when all safeguards to protect the environment are ensured. The project has been exempted from demonstrating need because it has qualified as an "innovative energy project" under Minnesota statute. The DEIS states that issues such as need, size, or type of facility are excluded from the scope of the process. However, we find such a determination troubling considering potential impacts, location, and cumulative impact to the resources.

#### Best Achievable Control Technology - BACT

In a letter dated July 2006, the Minnesota Pollution Control Agency (MPCA) explained that it does not consider Excelsior's BACT analysis to be complete for a variety of reasons. We understand that Region V EPA has been requested to review and provide a determination as to what constitutes BACT for the gas turbine sulfur dioxide (SO<sub>2</sub>) and nitrogen oxide (NO<sub>x</sub>) emissions. The Band would like to add our support to the MPCA's arguments that Selexol constitutes BACT for SO<sub>2</sub> and that Selective Catalytic Reduction (SCR) constitutes BACT for NO<sub>x</sub>. The following support our position and the position of other governments commenting on the permit.

Leech Lake agrees with the MPCA's position in its October 18, 2007 letter to Excelsior that it is inappropriate to compare BACT for pulverized coal boilers to BACT for an IGCC plant since the two technologies are different. According to the EPA's October 1990 New Source Review (NSR) Workshop Manual, this does not follow the approved procedure for determining BACT. Page B.31 of the NSR Manual states "Cost effectiveness (dollars per ton of pollutant reduced) above the levels experienced *by other sources of the same type* and pollutant, are taken as an indication that unusual and persuasive differences exist with respect to the source under review". This indicates that cost comparisons between dissimilar sources are not to be considered in the BACT analysis.

Through our participation with the Central Regional Air Planning Association Policy Oversight Group, the cost to remove these haze-causing pollutants does not seem unreasonable or extraordinary. The Band does not believe the estimate control costs to remove SO<sub>2</sub> by Selexol (\$7,663/ton removed) to be excessive and supports the MPCA's assertion that BACT for SO<sub>2</sub> from Mesaba is Selexol with an emission limit of 0.010 lb/mmBtu. These costs are further justified as MPCA has proposed a Concept Plan to address regional haze in Northern Minnesota that calls for a cap on SO<sub>2</sub> and NO<sub>x</sub> emissions to position Minnesota on the "glide path" for meeting regional haze requirements. The cost

is justified and may avoid the potential for Excelsior to take regional haze mitigation measures in the near future.

We further echo the MPCA's analysis that because this technology has not been installed on another IGCC sources does not mean that it is technically infeasible for Mesaba. Excelsior's claim that SCR technology should be classified "unavailable" simply because it has yet not been applied to an IGCC plant is a stretch of logic. Although the gas stream from an IGCC unit has more sulfur than the gas stream from a natural gas unit, Excelsior has not presented a case that this makes SCR technically infeasible for use at an IGCC plant. This technology has been used extensively to control SO<sub>2</sub> from coal-fired units, which also have emissions of sulfur far more concentrated than emissions from natural gas plants. This technology has been proposed in permits for at least two other plants.

### Regional Haze

The Band has concerns regarding visibility the close Class I areas of the Boundary Waters Canoe Area (BWCA) and Voyageurs National Park (VNP). Keep in mind that the Class I areas should be the center of the analysis, not Mesaba. Table 5.2.2-4 shows that there could be noticeable effects (a change in visibility of exceeding 0.5 deciviews) at these Class I areas on numerous days per year. The DEIS tries to account for this by stating that: 1) the modeling analysis is overly conservative; and 2) that the days that potential impacts occur are days where natural visibility is poor.

The reason that maximum allowable emissions are used in visibility modeling is to provide a safety factor. In some sectors, particularly the energy sector, average actual emissions and maximum actual emissions can vary by as much as 20% over the course of a year. Allowing the use of actual emissions could underestimate reality by a large degree. It is also perfectly possible that all sources affecting visibility of the Class I areas could potentially be operating at maximum capacity at the same time. Conservative assumptions need to be made as there is no practical way to ensure that this scenario won't occur. Therefore, we do not believe it is true that the modeling analysis is too conservative.

Second, the Band believes the visibility analysis performed in Section 5.2 of the DEIS is incomplete. While tables showing analyses for increment (Table 5.2.2-2, page 5.2-4) and Minnesota Ambient Air Quality Standards/National Ambient Air Quality Standards (Table 5.2.2-3, page 5.2-5) concentrations are included, and Table 5.2.2-4 (page 5.2-6) shows some visibility impacts data, there is no information on the expected maximum changes in the daily extinction coefficient resulting from the construction of this source for the BWCA or VNP. We believe this information is required in order for the Federal Land Managers (FLM's) of these Class I areas to complete their analysis. The Federal Land Managers' Air Quality Related Values Workgroup (FLAG) Phase I Report (December 2000)

states in Section A.1.that a single-source contribution to a change in extinction of greater than 10% will likely lead to FLM objections to the source's air permit as a predicted change that falls into the range of 2-10% prompts FLM interest. While

no data as to the expected maximum changes in the daily extinction coefficient due to the construction of this project is shown, the fact that Table 5.2.2-4 shows that this project is predicted to have potentially noticeable visibility impacts on *at least* 189 days per year leads us to believe that the daily extinction coefficient could be affected often enough to cause FLM objections.

Stating that the number of potential impact days is related heavily to the weather conditions is unreasonable as "potential impact days" were shown to occur *at least* 189 days per year or 52% of the time. The highest predicted number of "potential impact days" was 245 days per year, which is 67% of the time. The Band does not believe that the results shown in this table can be blamed on low temperatures, fog, or precipitation alone. The Forest Service also feels this is irrational analysis as stated in their December 17<sup>th</sup>, 2007 letter to the Department of Energy.

Finally, DEIS is incomplete with regard to regional haze in that it does not take responsibility for Mesaba's potential effects on visibility in local Class I areas and offers no design for mitigating these effects. In a recent air quality permitting action, Minnesota Steel accepted permit requirements from the State of Minnesota for pursuing control technology, purchasing emissions credits, and using green power in the scenario that the control technology alone did not work to be an effective enough control for its haze-causing pollutants. We suggest that Mesaba take a similar approach, along with re-examining BACT requirements.

We are very perplexed regarding page 5.2-2 of the DEIS where the document states that "...mining sources that emit primary particulate matter less than 10 microns (PM<sub>10</sub>) were not included in the cumulative modeling" for purposes of regional haze. The DEIS states that "Nearly all such sources are at ground level and far from Class I areas, and would not likely cause significant air quality impacts in the Class I areas". We do not see the rationale for this bold statement and request further explanations as to why PM mining emissions were not included and what supports their exclusion from this modeling. Larger particles do have a tendency to settle out near the emission point. However, smaller particles and massive disturbance of particles from mining operations, along with the amount of mining facilities in the northeastern region of Minnesota create a unique situation we feel must be properly and wholly modeled.

Furthermore, we believe that the cumulative modeling results are incomplete as detailed in Table 5.2.2-1 (Page 5.2-3). This table is setup to show existing and future emissions from various facilities that were used in modeling for cumulative air quality impacts. However, existing emissions for several sources that are currently in operation and continued future operations appear to have been left

out with no reasoning. One such example was SO<sub>2</sub>, PM<sub>10</sub> and mercury emissions from US Steel – Minntac, both existing and future, which are shown as

blanks in the table. These emissions need to be included in the cumulative modeling and the modeling redone to include the missing facilities.

Table 5.2.2-5 on page 5.2-7 shows that maximum total cumulative deposition rates from all sources. Results show that deposition rates for nitrogen and sulfur in the BWCA and the VNP exceed the deposition analysis threshold of 0.01 kg/ha-year established for United States Forest Service Class I areas, specifically for the BWCA. No deposition values have been set for United States Park Service areas, such as VNP. The DEIS does not go on to explain what this means or what changes will need to be made to emissions of these pollutants to ensure that the BWCA will not be adversely affected. Based up this reason alone, the DEIS is insufficient as the deposition values in the table are several orders of magnitude greater than the deposition analysis threshold.

#### Mercury

Mesaba is projected to emit 54 pounds of mercury per year. As a new source, the project is inconsistent with Minnesota's total maximum daily load (TMDL) goal of reductions in mercury releases. Minnesota has a goal to reduce anthropogenic sources of mercury 93% from 1990 levels to a total of annual emissions of 789 pounds per year. An increase of 54 pounds per year would equate to 7% of the total statewide emissions alone coming from this source. A number we do not think that can be adsorbed into the TMDL.

The Band greatly concerned about any additional mercury in our waters, fish, and other resources. Tribal members are an at risk population due to increased levels consumption. A human health risk assessment to estimate risk to subsistence fishers was conducted and referenced in the DEIS. Results of that assessment by the Excelsior indicated an incremental increase in health risks from ingestion of fish due to mercury from plant emissions. Although the document states that such a risk would be within the acceptable risk quotient we question aspects of the assessment and what they determined acceptable.

#### Water Quality

Though this letter mainly covers aspects of air quality we do not want to disregard the important aspects and interplay with water quality. Water discharges would primarily consist of cooling tower blowdown blended with additional wastewater from other plant systems. Constituents in the discharge would essentially be the same as those in the water supply but more concentrated as a result of repeated cycles through the process. The number of cycles of concentration would be determined by mercury concentrations and conditions of NPDES permits. More stringent requirements would be required on the East Range Site to comply with regulations for discharges within the Lake

Superior Basin (mercury in particular). Anticipated discharges are expected to exceed water quality standards for hardness, total dissolved solids, sulfate, and

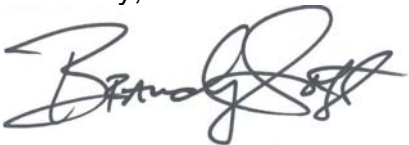
conductivity. The DEIS states that Excelsior would have to apply for a waiver if parameters are expected to exceed water quality standards. This approach is troubling. Water quality standards must be met, and in a situation of a variance, a specific plan and timeline to meet standards must be developed.

#### Consultation

Finally, we want to remind all parties involved in the Mesaba Energy Project that federal and state governments have the responsibility to work with Tribes on a government-to-government basis. Tribes are sovereign governments and must be treated as such. Notification and proper consultation activities must be completed directly with all Tribes potentially affected by the proposed project. The planning process and project implementation must recognize the sovereign status of the Tribes and the rights retained by treaties with the United States government. This must be more clearly addressed in the DEIS, in future dealings regarding the Mesaba Energy Project, and other future projects.

Thank you for your consideration of the Leech Lake Band of Ojibwe's comments. The Leech Lake Band requests to remain informed on this project if or when the process moves forward. If you have any questions or comments please contact me at 218-335-7429 or by email at [air@lldrm.org](mailto:air@lldrm.org).

Sincerely,



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