

**STATE OF MINNESOTA
DEPARTMENT OF NATURAL RESOURCES
EIS SCOPING PROCEDURES**

Minnesota Steel Industries Taconite Mine, Concentrator, Pellet Plant,
Direct Reduced Iron Plant, and Steel Mill Project
Itasca County, Minnesota

1. Minnesota Steel proposes to reactivate the former Butler Taconite mine and tailings basin near Nashwauk, Minnesota. The proposed project includes the dewatering of existing mine pits in the area and open pit mining operations to remove ore and waste rock. Waste rock would be stockpiled near the mine pit and ore would be hauled to the proposed crusher, concentrator, and pellet plant. Tailings from the concentrator are proposed to be discharged to the existing Butler Taconite Stage I Tailings Basin. Taconite pellets would be delivered to the DRI plant and the DRI product would be delivered to the proposed steel mill that would consist of two electric arc furnaces, two ladle furnaces, two thin slab casters, and a hot strip rolling mill to produce sheet steel.
2. The Minnesota Department of Natural Resources (DNR) is the designated Responsible Government Unit (RGU) for construction of a new metallic mineral processing facility according to Minnesota Rules part 4410.4400, subpart 8C.
3. The United States Army Corps of Engineers (USACE) is serving as co-lead agency in preparation of the EIS with the DNR. The USACE received an application from Minnesota Steel to discharge fill material in waters of the U.S., including wetlands, to develop the Minnesota Steel project. The USACE has determined that its action on the permit would be a major federal action that could significantly affect the quality of the human environment, requiring the preparation of a Federal EIS pursuant to the National Environmental Policy Act (NEPA) (42 U.S.C. §§ 4321-4347) and its implementing regulations (40 C.F.R. parts 1500-1508).
4. An EIS is mandatory for this project pursuant to Minnesota Rules part 4410.2000, subpart 2; the rule directs that an EIS shall be prepared if the project meets or exceeds the thresholds of any of the EIS categories listed in part 4410.4400. Minnesota Rules part 4410.4400, subparts 8B and 8C (Metallic Mineral Mining and Processing) indicate mandatory preparation of an EIS for construction of a new facility for mining metallic minerals or for the disposal of tailings from a metallic mineral mine and construction of a new metallic mineral processing facility, respectively.
5. As required by Minnesota Rules part 4410.2000, subpart 2, the DNR will prepare an EIS for the project. The EIS will meet all the applicable requirements of Minnesota Rules parts 4410.0200 to 4410.6500 (EQB rules) that regulate the Minnesota Environmental Review Program. The DNR will obtain the services of a consultant to assist in EIS preparation but will retain control of and responsibility for the content and analysis contained in the EIS.

6. The EQB rules require a thorough but succinct discussion of potentially significant direct or indirect, adverse, or beneficial effects generated. Data and analyses shall be commensurate with the importance of the impact and the relevance of the information to a reasoned choice among alternatives and to the consideration of the need for mitigation measures.
7. The EQB rules direct the RGU to consider the relationship between the cost of data and analyses and the relevance and importance of the information in determining the level of detail of information to be prepared for the EIS.
8. In 1997, the EQB amended its rules to emphasize that only potentially significant issues need to be addressed in the EIS. The amendment brought the rules into conformity with Minnesota Statutes Section 116D.04, Subdivision 2a, which states that an EIS analyzes the proposed project's significant environmental impacts. In addition, the amendment "*shifts the focus of scoping towards the purpose of the EIS (better decision making) and away from merely responding to public controversy,*" (March 6, 1995 Statement of Need and Reasonableness).
9. The DNR prepared and issued for public review and comment, a Scoping Environmental Assessment Worksheet (EAW) and Draft Scoping Decision Document, both prepared in accordance with Minnesota Rules part 4410.2100.
10. The Notice of Availability for review of the Scoping EAW and Draft Scoping Decision Document was published in the EQB Monitor (Vol. 29, No. 15) on July 18, 2005, thereby beginning a mandatory 30-day public review and comment period, which concluded August 17, 2005 per Minnesota Rules part 4410.2100, Subpart 3A.
11. The DNR supplied a press release to at least one newspaper in the vicinity of the proposed project announcing the availability of the Scoping EAW and Draft Scoping Decision Document, the opportunity for public comment, and the location of review copies.
12. The DNR provided public review copies of the scoping documents to one public library, as well as the DNR Library in St. Paul, the DNR Northeast Regional Office in Grand Rapids, Minnesota, and the Legislative Reference Library in St. Paul, Minnesota.
13. On Wednesday, August 17, 2005, the DNR held a public scoping meeting, as required by Minnesota Rules Part 4410.2100, subpart 3B, at the Nashwauk High School in Nashwauk, Minnesota from 6:30 PM to 8:30 PM. Approximately 170 people attended the meeting. The attendees received information about the Minnesota Environmental Review Program, the project, the proposed EIS contents, and were given an opportunity to ask questions about the project and the EIS process. The DNR provided a comment form for submitting written comments on the proposed EIS scope.
14. The DNR received 45 comment letters and 10 verbal comments (transcribed by a stenographer during the scoping meeting) on the Scoping EAW and Draft Scoping Decision Document during the 30-day review and comment period. Written comments were received from:

Lori Andresen, Tarry Edington, Jim Fetzik, David & Kelli Hardy, Noreen Hautala, Bill Heig, Randall Jacobson, Robert Johnson, Bob Kimmes, Tom Larson, Eddie LeBar, David Lick, LeRoger Lind, Beatrice Milinovich, Elanne Palich, Drew Prochazka, William & Marjorie Ress, Ronald Rich, Ken Ricker, Mary Lou Roskoski, Steve & Sharon Ross, Christel Rowe, Richard Savolainen, Warren Schaffer, Jan Seal Smith, Betty Toronto, Kathy Traczyk, William Tuominen, David Van Reese, Donald Vizenor, Barb Walker, Shawne Wright, Christopher Wright, (1) Anonymous, Blandin Foundation, Duluth Seaway Port Authority, Grand Rapids Area Chamber of Commerce, Itasca Development Corporation, Minnesota Department of Transportation, Minnesota Historical Society, Sierra Club, Swan Lake Association, United States Environmental Protection Agency, State Representative Loren Solberg, and State Senator Tom Saxhaug

Verbal comments from: Vincent Austad, Carol Carlson, Anneliese Hayne, Maria Kautto, Bonita Labar, David Lotti, Jack Milinovich, Craig Nelson, Walt Petrusic, and Gregory Walker

15. The EQB rules do not require the RGU to respond to comments received on the Scoping EAW and Draft Scoping Decision Document, but require the RGU to consider the comments received in developing the Final Scoping Decision.
16. The EQB rules require the RGU to issue a Final Scoping Decision within 15 days after the close of the 30-day scoping period. Due to the number of comments received and the complexity of the issues; the date to issue the Final Scoping Decision was extended.
17. The DNR considered the comments received during the scoping period made revisions to the Draft Scoping Decision Document as warranted, and issued the Final Scoping Decision on October 13, 2005.
18. The Scoping Decision will be sent, within 5 days of completion, to all parties on the EQB Distribution List, to all parties submitting comments on the draft EIS scope, and to all parties requesting copies.
19. Comments received, and responses or discussion of their consideration, are attached to this document.

RESPONSES TO EIS SCOPING COMMENTS

MINNESOTA STEEL INDUSTRIES TACONITE MINE, CONCENTRATOR, PELLET PLANT, DIRECT REDUCED IRON PLANT, AND STEEL MILL PROJECT ITASCA COUNTY, MINNESOTA

The Department of Natural Resources (DNR) received 45 comment letters on the Scoping Environmental Assessment Worksheet (EAW) and Draft Scoping Decision Document during the 30-day review and comment period.

Comments were received from:

Lori Andresen	Ronald Rich	Blandin Foundation
Tarry Edington	Ken Ricker	Duluth Seaway Port Authority
Jim Fetzik	Mary Lou Roskoski	Grand Rapids Area Chamber of Commerce
David & Kelli Hardy	Steve & Sharon Ross	Itasca Development Corporation
Noreen Hautala	Christel Rowe	Minnesota Department of Transportation
Bill Heig	Richard Savolainen	Minnesota Historical Society
Randall Jacobson	Warren Schaffer	Sierra Club
Robert Johnson	Jan Seal Smith	Swan Lake Association
Bob Kimmes	Betty Toronto	United States Environmental Protection Agency
Tom Larson	Kathy Traczyk	State Representative Loren Solberg
Eddie LeBar	William Tuominen	State Senator Tom Saxhaug
David Lick	David Van Reese	
LeRoger Lind	Donald Vizenor	
Beatrice Milinovich	Barb Walker	
Elanne Palich	Shawne Wright	
Drew Prochazka	Christopher Wright	
William & Marjorie Ress	(1) Anonymous	

Verbal comments from the following were recorded by a stenographer at the August 10, 2005, Public Scoping Meeting: Vincent Austad, Carol Carlson, Anneliese Hayne, Maria Kautto, Bonita Labar, David Lotti, Jack Milinovich, Craig Nelson, Walt Petrusic, and Gregory Walker

The comments relating to the EIS scope are condensed and summarized below. In some cases, similar comments were submitted in multiple letters; these are treated as one. Copies of the comment letters are attached for reference. The comments primarily address issues already proposed for some degree of EIS inclusion in the Draft Scoping Decision. Other comments necessitated additions to, or clarification of, information in the both scoping documents. The responses identify substantive comment-based revisions to the Draft Scoping Decision Document.

COMMENTS RELATING TO THE SCOPING EAW

A number of comments on the Scoping EAW indicated it lacked information in some areas. The EQB's *Guide to Minnesota Environmental Review Rules* advise RGUs that for significant EIS topics, little factual information should be included in the EAW. Instead, the EAW may simply state that the EIS will include a major discussion of the topic and provide a description of its intended scope and study methods. Consequently the EAW contains the least detailed information about issues that will be discussed extensively in the EIS, and more complete information regarding issues that will not be covered in the EIS.

1. **Comment: (AQ-16)** Comment suggests that steel mill process drawings in the EAW leave out emission control systems and are incomplete.

Consideration/Response: The EIS and the air emissions permit application will include analyses of the pollution control technologies appropriate for control of air emissions from the proposed project. All potential control technologies and the expected emission reductions from the use of those technologies will be evaluated for purposes of complying with the requirements of the federal PSD (Prevention of Significant Deterioration) and NESHAP (National Emissions Standards for Hazardous Air Pollutants) programs. The entire facility will be subject to the PSD program which requires the installation of Best Available Control Technology (BACT). The BACT analysis evaluates the available technologies and requires the installation of the best performing equipment taking into consideration several issues including cost.

Portions of the plant will be subject to the NESHAP program (the taconite processing and possibly the iron and steel making portions). The NESHAP program requires installation of Maximum Achievable Control Technology (MACT). The MACT standards require the installation of control equipment that will result in the emissions unit performing at least as well as the top performing twelve percent of similar emissions units.

These analyses will be completed in accordance with federal rules and guidance.

Changes in Scope: No changes in scope.

2. **Comment: (EAW-1)** Comment asserts that text describing impacted residences is not consistent with the tables on Pages 16-21 that identify only two residences.

Consideration/Response: The tables on pages on pages 16-21 of the EAW report the before and after results in number of acres rather than the number of impacted residences. Therefore, the table identifies two acres of residential areas that may be impacted. In addition, the proposed mine boundary is non-authoritative/administrative (planning purposes only) and does not imply ownership or proprietary rights for the operator/developer. Minnesota DNR regulations do not require an uninhabited permit to mine boundary around the facility and property; property owners are not required to sell if located within the boundary.

Changes in Scope: No changes in scope.

3. **Comment: (EAW-2)** Comment asserts that water quality tables 18-2 and 18-3 are unclear with respect to differences in parameters that have data values and why Pit 3 and Pit 6 do not have data for all sampling rounds.

Consideration/Response: The blanks in Table 18-2 are for parameters that were not analyzed (typically after initial sampling showed low concentrations). Additional water quality data are being gathered by Minnesota Steel in 2005 and will be available for use in the EIS.

The commenter requested information on whether Pits 3 and 6 were ever sampled. Pits 3 and 6 do not exist. Pit 3 was to be north of Pit 1 and is not part of the proposed project. Pit 6 will be mined as part of the proposed project but does not exist now.

Changes in Scope: No changes in scope.

4. **Comment: (EAW-4)** Comment suggests clarification of term “unlisted” with respect to the status of Snowball Lake and Snowball Creek.

Consideration/Response: The term “unlisted” refers to the status of these waters as not being identified on the 303d impaired water body list.

Changes in Scope: No changes in scope.

5. **Comment: (EAW-5)** Comment suggests that sewage waste and paint shop waste should be included in Table 20-1.

Consideration/Response: Comment acknowledged. The EIS will include information about management of these wastes.

Changes in Scope: Section 3.3.5 to read: The EIS will discuss process wastes and solid wastes (emission control dust and slag) generated from the entire project including characterization, quantity, storage, handling, treatment & disposal, and best management practices.

6. **Comment: (MISC-13)** EIS should include a figure showing watersheds discussed in EAW (Water Use), including a baseline watershed acreage and percentage impacted.

Consideration/Response: A watershed yield model will be included as part of the EIS. In addition, a water balance is to be conducted for the project and will be used to model how affected watersheds and lake water levels would change both during and after mining.

Changes in Scope: No changes in scope.

7. **Comment: (MISC-16)** The EAW states water quality impacts to Swan Lake will be “small” – define small.

Consideration/Response: Comment noted, the statement was incorrect, as the degree of impact has yet to be determined. Impacts to Swan Lake will be addressed through information obtained during the nutrient budget study and water balance.

Changes in Scope: No changes in scope.

COMMENTS RELATING TO PROPOSED EIS SCOPE

Comments and issues regarding the proposed EIS scope are organized below. The Final Scoping Decision Document was renumbered to reflect changes and the sections where substantive changes were made in the Final Scoping Decision Document are identified.

1. **Comment: (ALT-1)** Comments requested evaluation of a different tailings basin location, although no additional locations were proposed.

Consideration/Response: An alternative tailings basin is proposed for evaluation as part of the EIS. This alternative will not have impacts on the Swan Lake watershed, and is a truly viable alternative with different environmental impacts. No additional alternative tailings basin sites have been identified that could be evaluated for meeting the purpose of the project and significant environmental benefits.

Changes in Scope: No changes in scope.

2. **Comment: (ALT-2)** Comments requested evaluation of different power line alignments. Suggestions were made to evaluate alignments that followed existing public utility right-of-ways, such as roads.

Consideration/Response: One or more transmission lines will be required to supply power to the project. Conceptual plans for connecting to the power grid have been submitted by Minnesota Steel; however these power line routes as displayed on figures in the EAW are preliminary.

Changes in Scope: Section 3.2.11 will indicate that the EIS will include information on conceptual design and the technical and regulatory processes for routing of electric transmission lines. Final design and location of the transmission line will be determined by the Minnesota Public Utilities Commission's site selection process. This process will be described in the EIS as well as potential impacts from the currently proposed location and design.

3. **Comment: (ALT-3)** Comments questioned the reasoning behind the proposed mine boundary, although the comments were not consistent as far as suggestions for relocation of the boundary. The following issues were identified:

- Too much area to the north being included within boundary, preventing public access.
- Boundary should include all of Snowball Lake
- Concern about being just outside of the boundary (i.e. Big Sucker Lake)
- Concern about property ownership within the mine boundary.

Consideration/Response: The proposed mine boundary is non-authoritative/administrative (planning purposes only) and does not imply ownership or proprietary rights for the operator/developer.

Changes in Scope: No changes in scope.

4. **Comment: (ALT-4)** Comment proposed development of on-site treatment for sanitary wastewater.

Consideration/Response: The development of onsite sanitary wastewater treatment will be assessed for the feasibility and potential environmental benefits in reducing nutrient additions to Swan Lake.

Changes in Scope: Onsite sanitary wastewater treatment will be added to Section 2.5 of the scoping decision document as a modified design or layout alternative.

5. **Comment: (ALT-5)** Comments suggest evaluation of alternative plant site. One comment suggested evaluation of a plant site further to the south.

Consideration/Response: A different location for the plant site would only change the location of the environmental impacts, and not provide any additional significant environmental benefit. A different location would also be detrimental to the purpose of the project to develop the value added steel mill as part of the mining project. Evaluation of an alternative layout of the plant site is proposed in Section 2.5.1 of the scoping decision document, and may provide for some environmental benefits such as minimizing wetland impacts.

Changes in Scope: No changes in scope.

6. **Comment: (ALT-6)** Comments request evaluation of alternative mine site.

Consideration/Response: Most properties containing magnetic taconite ore across the Mesabi are either owned by or leased by the mining companies which plan to develop (mine) these ore bodies in the future. Alternative mine sites available for development by Minnesota Steel require a very large magnetic taconite deposit not currently under lease or ownership by other companies. Additionally, the ores of the Butler area are known to contain very little silica relative to other Mesabi ores. This low silica content provides a much more favorable ore for the specific processes planned by Minnesota Steel.

Changes in Scope: No changes in scope.

7. **Comment: (ALT-7)** Comment suggests evaluation of in-pit waste rock disposal and use of horizontal reduction technology to avoid impacts from tall stacks.

Consideration/Response: Section 2.5.2 of the scoping decision document indicates that the prospect of in-pit stockpiling of waste rock will be evaluated in the EIS.

There are two types of horizontal technologies for Direct Reduction Iron (DRI) furnaces – rotary kilns and rotary hearths. The direct reduction processes for rotary kilns and rotary hearths use coal as the primary reductant to convert iron oxide into metallic iron. The use of coal reduction processes results in higher mercury, sulfur dioxide, carbon dioxide, and carbon monoxide air emissions than do natural gas reduction processes such as the Midrex DRI process that is being proposed for use by Minnesota Steel Industries. Natural gas reduction furnaces are vertical because hot gases rise (move upward) naturally. Movement of hot gases horizontally is difficult and requires movement by fans, which increases energy consumption. Fans are also very difficult to seal, which is a safety concern because the primary reducing gas used by reduction furnaces to convert iron oxide to metallic iron is carbon monoxide. The utilization of horizontal reduction technology will not be considered in the EIS, as it would not likely have any significant environmental benefit compared to the project as proposed.

Changes in Scope: No changes in scope.

8. **Comment: (ALT-8)** Comments suggest evaluation of alternative mining technology and processing technology, with emphasis on preventing air emission impacts.

Consideration/Response: The only alternative mining technology that could be evaluated is the use of underground mining technology. The use of this technology would not meet the purpose of the project, as the proposer could not feasibly develop the project in such a way.

There are several types of commercially available taconite-concentrate grinding technologies that can be used in the concentration process. Wet and dry grinding technologies include roller mills, autogenous mills, sag mills, rod mills, vertical ball mills, and standard ball mills. Minnesota Steel Industries is proposing using wet grinding, which will result in lower dust emissions than dry grinding. The impact on the environment will be similar for each type of wet grinding technology. The only commercially available technologies for separating magnetite from gangue minerals after grinding are magnetic separation and flotation.

There are currently two available pellet induration processes that are commercially available – straight grate furnaces and grate kiln furnaces. The EIS will thoroughly evaluate both types of indurating furnaces to determine which type will have the least impact on the environment.

Direct Reduction technologies currently use natural gas or coal as the reductant to convert iron oxide into metallic iron. Natural gas reduction technologies such as the Midrex technology use gas reformers and vertical shaft furnaces.

There are generally two types of steelmaking furnaces, electric furnaces and oxygen furnaces. Oxygen furnaces require a melted iron feed such as melted pig iron from a blast furnace. Oxygen furnaces cannot make a steel melt from cold iron feed because there is no means to introduce external heat into the process. Electric furnaces can make steel melts from cold iron feed by introducing enough electrical energy into the cold iron feed to melt the iron. Once the iron is melted, steel can then be produced. Electric furnace steelmaking technology is currently the only commercially available technology that Minnesota Steel can use.

Changes in Scope: Section 2.4.1 of the scoping decision document will be revised to indicate the EIS will evaluate fuel use and air emissions for both types of indurating furnaces to determine which type will have the least impact on the environment.

9. **Comment: (ALT-9)** Comment suggested evaluation of alternative scale/magnitude of the project. A specific suggestion was made to evaluate magnitude beyond the 20 year proposal and mining at an increased rate within the 20 year time frame.

Consideration/Response: Connected or phased actions beyond the proposed 20 year project life or a production trigger of 55 million tons of steel, whichever comes first, will be addressed in accordance with MN Rules Ch. 4410.1000, Sub. 4 as follows, "In connected actions and phased actions where it is not possible to adequately address all the project components or stages at the time of the initial EAW, a new EAW must be completed before approval and construction of each subsequent project component or stage. Each EAW must briefly describe the past and future stages or components to which the subject of the present EAW is related."

Changes in Scope: Section 4.0 of the scoping decision document will be revised to include reference to Minnesota Rules as they pertain to connected or phased actions, specifically MN Rule Ch. 4410.1000, Sub. 4.

10. **Comment: (ALT-10)** Concern that purpose and need statement is being narrowly construed to prevent evaluation of alternatives. Suggests verification of product need in the EIS.

Consideration/Response: There is no intent to prevent evaluation of alternatives by narrowly construing the purpose statement. To avoid this perception, the purpose statement has been revised to read, "The purpose for the taconite mine and steel mill is to provide increased supplies of steel to the domestic and world market."

Changes in Scope: No changes in scope.

11. **Comment: (ALT-11)** Concern about evaluation of mitigation measures identified through public comment. Suggestion to include a member of the public on EIS review team.

Consideration/Response: All mitigation measures identified through public scoping will be considered during EIS preparation. If any mitigation measures are eliminated from consideration, the reason for elimination will be included in the EIS. The public is encouraged to participate and is given opportunity to participate as defined in the EQB rules.

Changes in Scope: No changes in scope.

12. **Comment: (AQ-1)** Comment asserted that wind direction data was inadequate because it was from 30 years ago.

Consideration/Response: Minnesota Steel is proposing to use the most recently approved meteorological data. Minnesota Steel is currently compiling a data set for Hibbing, 2001 through 2005. At this time, the data set is not approved; however, approval is expected.

Changes in Scope: No changes in scope.

13. **Comment: (AQ-2)** Comment suggests all dust (PM₁₀) needs to be accounted for, including fugitive dust from the tailings basin.

Consideration/Response: Minnesota Steel will prepare an emission inventory that is inclusive of criteria pollutants, hazardous air pollutants (HAPs), and chemicals of potential concern (COPC). The inventory will be inclusive of all sources (e.g., point and fugitive) that are a component of the proposed project. The inventory will differentiate between those emissions that are captured and controlled by air pollution control devices (APCD) and those that are fugitive and being controlled by the application of best management practices. The emission inventory calculations will be incorporated into the permit application and air dispersion and deposition modeling analyses as needed to demonstrate that the facility will: 1) be in compliance with the applicable emission standards and air quality related values (AQRV) and 2) not create an unacceptable level of risks and/or hazards for human health and the environment. The emission inventory and the modeling analyses will be used to complete: 1) Prevention of Significant Deterioration (PSD) review; 2) an evaluation of the Class II areas Significant Impact Levels (SIL) and associated Significant Impact Areas (SIA); 3) a Class I Areas visibility impact assessment; 4) a Human Health Risk Assessment; and 5) an Ecological Risk Assessment.

Air emissions and potential impacts will be a major topic in the EIS. The EIS will include a human health and ecological risk assessment of the project. Minnesota Pollution Control Agency (MPCA) anticipates that a fugitive emission control plan (best management work practices) will be prepared and implemented by Minnesota Steel and that compliance with the applicable standards will be enforced by the MPCA.

Changes in Scope: Revise Section 3.3.6 to include additional detail on approach to evaluation of air emission impacts.

14. **Comment: (AQ-3)** Comment suggests evaluation of potential for project to contribute to acid rain.

Consideration/Response: Section 3.3.6 indicates air emission impacts will be addressed. The Scoping Decision Document will be revised to include additional detail about how air emissions will be evaluated.

Changes in Scope: Revise Section 3.3.6 to include additional detail on approach to evaluation of air emission impacts.

15. **Comment: (AQ-4)** Comment suggests evaluation of mercury emissions.

Consideration/Response: Mercury will be evaluated as a COPC in the risk assessment. The emission inventory will quantify the amount of mercury being emitted from both point and fugitive sources. Available information indicates that mercury emissions, at other taconite ore processing facilities ranges from approximately 16 to 208 pounds per year. It is recognized that this facility will be sized differently and that Minnesota Steel will also include emissions that are derived from the steel making and shaping activities. The EIS evaluations will include review of estimated emissions of mercury from the proposed project as well as reasonably foreseeable projects. This analysis will include the best available estimates of mercury emissions from the proposed facility and an analysis of mercury control technologies for the proposed project.

Changes in Scope: The EIS will include an analysis of mercury control technologies. Section 3.3.6 of the scoping decision document will be revised to reflect this change.

16. **Comment: (AQ-5)** Comment suggests evaluation of fugitive emissions from portions of the processing plant (i.e. vertical shaft reactor).

Consideration/Response: A fugitive emission control plan (best management work practices) will be prepared and implemented for compliance with the applicable opacity standards and will be enforced by the MPCA. Compliance demonstrations and the risk assessment will include both the point source and fugitive emissions. In addition, Minnesota Steel will prepare an emission inventory that is inclusive of criteria pollutants, hazardous air pollutants (HAPs), and other chemicals of potential concern (COPC). The inventory will be inclusive of all sources (e.g., point and fugitive) that are a component of the proposed project. The inventory will differentiate between those emissions that are captured and controlled by air pollution control devices (APCD) and those that are fugitive and being controlled by the application of best management practices. The emission inventory calculations will be incorporated into permits applications and air dispersion and deposition modeling analyses as needed to demonstrate that the facility will: 1) be in compliance with the applicable emission standards and air quality related values (AQRV) and 2) not create an unacceptable level of risks and/or hazards for human health and the environment. The emission inventory and the modeling analyses will be used to complete: 1) Prevention of Significant Deterioration (PSD) review; 2) an evaluation of the Class II areas Significant Impact Levels (SIL) and associated Significant Impact Areas (SIA); 3) a Class I Areas visibility impact assessment; 4) a Human Health Risk Assessment; and 5) an Ecological Risk Assessment.

Changes in Scope: Revise Section 3.3.6 to include additional detail on approach to evaluation of air emission impacts.

17. **Comment: (AQ-6)** Comment suggests evaluation of (asbestos) fibers.

Consideration/Response: The proposed Minnesota Steel facility is to be located near Nashwauk, MN, on the west end of the Mesabi Range. The available information to date indicates that no asbestos fibers or amphibole minerals have been detected on the west end of the Mesabi Range. However, the presence of asbestos minerals in the ore body will be further investigated in the EIS.

Minnesota's environmental review process includes evaluation of potential risk to human health and the ecology that is represented by new projects. Minnesota Steel will prepare a human health and ecological risk assessment for the proposed facility for use in the EIS and air quality permit. The objectives of the risk assessment are:

1. To evaluate the potential human health and ecological risk associated with potential emissions to ambient air from the proposed Minnesota Steel facility under routine operating conditions; and

2. To characterize potential human health and ecological risks associated with tailings basin discharge to land, groundwater, and surface water.

Changes in Scope: Section 3.3.6 of the scoping decision document will be revised to indicate that the EIS will include a summary of existing mineralogical data and studies for the west end of the Mesabi Range from Minnesota state agencies, research institutions, and Butler Taconite files. The EIS will also present an analysis of the existing mineralogy and petrology data for the ore body to be mined and identify the presence/absence of amphibole minerals. In addition, samples will be obtained from Minnesota Steel's ore bulk sample and analyzed to confirm the presence/absence of asbestos minerals (Method for bulk sample analysis: EPA/600/R-93-116; Polarized Light Microscopy). Further evaluation will be required if deposits of asbestos or fine mineral fiber bearing materials are discovered.

18. **Comment: (AQ-7)** Comments expressed general concern about air quality impacts.

Consideration/Response: Minnesota Steel will prepare a comprehensive emission inventory that is inclusive of all on site project related emission sources (e.g., stationary and fugitive) that have the potential to emit criteria pollutants, hazardous air pollutants (HAPs), and other chemicals of potential concern (COPC). Dust emissions will be evaluated as part of the facility's air permitting. Air emissions and potential impacts will be a major topic in the EIS. The EIS will include a human health and ecological risk assessment of the project. The EIS will also evaluate cross-media impacts from various air quality control devices that may be used at the processing plant.

As stated in the Scoping EAW, the entire facility is subject to the requirements to install and operate Best Available Control Technology (BACT). The taconite portion of the facility is subject to the National Emissions Standard for Hazardous Air Pollutants for Taconite Iron Ore Processing. The iron and steel making portion may be subject to the requirements of the National Emissions Standard for Hazardous Air Pollutants for Iron and Steel Foundries. The emission limits will be established in accordance with the state and federal processes established for setting limits.

Changes in Scope: Revise Section 3.3.6 to include additional detail on approach to evaluation of air emission impacts.

19. **Comment: (AQ-8)** Comment suggests evaluation of existing mercury levels in the local area human population.

Consideration/Response: The human health and ecological risk assessment proposed in Section 3.3.6. will include mercury. The comment implies that the EIS should include an epidemiological study, which is the study of disease in human populations. Epidemiology studies to determine existing levels of mercury and cancer rates in the area are beyond the scope and intent of this EIS.

Changes in Scope: No changes in scope.

20. **Comment: (AQ-9)** Comment suggests evaluation of electricity co-generation from heat recapture.

Consideration/Response: Co-generation requires a high-temperature, high volume gas stream. Potential gas streams include:

- Pellet plant,
- DRI reformer,
- EAFs and ladle furnaces, and
- Transfer table and tunnel furnaces.

The stacks on the pellet plant and DRI reformer will be equipped with wet scrubbers that will cool the waste gas to very low temperatures. The electric arc furnaces and ladle furnaces will not have steady exhaust streams and will not be suitable for cogeneration. The heated transfer table and tunnel furnaces in the steel mill will produce a relatively clean, high-temperature exhaust that could possibly be used for cogeneration using a heat recovery steam generator. The estimated gross heat value of the three exhaust streams is less than 20 megawatts (MW) and reasonable estimates of boiler, turbine and generator efficiency would indicate a generation capacity of less than 3 MW. This is a small portion of overall energy use and does not represent a significant design alternative.

Changes in Scope: No changes in scope.

21. **Comment: (AQ-10)** Comments suggest evaluation of air impacts to watershed and airshed.

Consideration/Response: Potential air impacts to the watershed and airshed will be evaluated in the EIS as provided by the Class I and II Analysis, the Human Health and Ecological Risk Assessment, the Emissions Inventory, and the cumulative effects analysis.

Changes in Scope: Revise Section 3.3.6 to include additional detail on approach to evaluation of air emission impacts.

22. **Comment: (AQ-11)** Comment suggests evaluation on vehicle related air emissions, including mining equipment.

Consideration/Response: Vehicle related air emissions will be intermittent and include emissions from a relatively small number of trucks, bulldozers, loaders and similar earth moving equipment. Such equipment is designed, engineered and must be in compliance with applicable federal emissions standards. Fuels, including sulfur content, must also comply with federal standards intended to limit engine emissions. The EIS will include a qualitative discussion of the effects of mine haul truck emissions on air quality at receptor sites near the mining operation, including carbon monoxide, nitrogen oxides and particulate emissions.

The EIS will discuss the effects of mitigation measures on the projected air quality impacts. If the qualitative analysis shows anything other than insignificant impacts, further evaluation will be required.

Changes in Scope: Vehicle related emissions will be added to the scoping decision document as Section 3.2.8 and will indicate that the EIS will include a qualitative discussion of the effects of mine haul truck emissions on air quality at receptor sites near the mining operation, including carbon monoxide, nitrogen oxides and particulate emissions. The EIS will discuss the effects of mitigation measures on the projected air quality impacts. If the qualitative analysis shows anything other than insignificant impacts, further evaluation will be required.

23. **Comment: (AQ-12)** Comment suggests additional information and evaluation on the use of commercially available control technology.

Consideration/Response: The EIS and the air emissions permit application will include analyses of the pollution control technologies appropriate for control of air emissions from the proposed project. All potential control technologies and the expected emission reductions from the use of those technologies will be evaluated for purposes of complying with the requirements of the federal PSD (Prevention of Significant Deterioration) and NESHAP (National Emissions Standards for Hazardous Air Pollutants) programs. The entire facility will be subject to the PSD program which requires the installation of Best Available Control Technology (BACT). The BACT analysis evaluates the available technologies and requires the installation of the best performing equipment taking into consideration several issues including cost.

Portions of the plant will be subject to the NESHAP program (the taconite processing and possibly the iron and steel making portions). The NESHAP program requires installation of Maximum Achievable Control Technology (MACT). The MACT standard requires the installation of control equipment that will result in the emissions unit performing at least as well as the top performing twelve percent of similar emissions units.

These analyses will be completed in accordance with federal rules and guidance.

Changes in Scope: Revise Section 3.3.6 to include additional detail on approach to evaluation of air emission impacts.

24. **Comment: (AQ-13)** Comment suggests that risk assessment needs to include all sources of health concern, including fibers, vehicle exhaust, and metal processing.

Consideration/Response: The human health and ecological risk assessment will include all appropriate sources of health concern. The reference to fibromyalgia implies conducting an epidemiological study, which is the study of disease in human populations. Environmental epidemiology is the study of the ways things in the environment can be factors in causing disease. Such studies are commonly referred to as disease studies or health studies. Epidemiology studies to determine if there is a significantly higher incidence rate of fibromyalgia among citizens of the iron range are beyond the scope and intent of this project. A mineralogical analysis will be conducted as part of the EIS to determine the presence, if any, of asbestos and other fine mineral fibers.

Mining equipment units are classified as area sources of pollutants. Area sources are associated with a geographical area(s) where onsite activities cause pollutants to become airborne. Emissions from area sources will be included in the application. The EIS will include a qualitative discussion of the effects of mine haul truck emissions on air quality at receptor sites near the mining operation, including carbon monoxide, nitrogen oxides and particulate emissions. The EIS will discuss the effects of mitigation measures on the projected air quality impacts. If the qualitative analysis shows anything other than insignificant impacts, further evaluation will be required.

Changes in Scope: Revise Section 3.3.6 to include additional detail on approach to evaluation of air emission impacts.

25. **Comment: (AQ-14)** Comment suggests the air emission analysis should include PM/PM₁₀ emissions that would not be captured by the baghouse collection system.

Consideration/Response: The EIS and air emissions permit will include all air emissions including those not captured by control equipment.

Changes in Scope: Revise Section 3.3.6 to include additional detail on approach to evaluation of air emission impacts.

26. **Comment: (AQ-15)** Comment states that descriptions of proposed control equipment are inconsistent in the EAW, and that the EIS should evaluate controls prior to proposing specific controls.

Consideration/Response: The EIS and the air emissions permit application will include analyses of the pollution control technologies appropriate for control of air emissions from the proposed project. All potential control technologies and the expected emission reductions from the use of those technologies will be evaluated for purposes of complying with the requirements of the federal PSD (Prevention of Significant Deterioration) and NESHAP (National Emissions Standards for Hazardous Air Pollutants) programs.

The entire facility will be subject to the PSD program which requires the installation of Best Available Control Technology (BACT). The BACT analysis evaluates the available technologies and requires the installation of the best performing equipment taking into consideration several issues including cost.

Portions of the plant will be subject to the NESHAP program (the taconite processing and possibly the iron and steel making portions). The NESHAP program requires installation of Maximum Achievable Control Technology (MACT). The MACT standard requires the installation of control equipment that will result in the emissions unit performing at least as well as the top performing twelve percent of similar emissions units.

These analyses will be completed in accordance with federal rules and guidance.

Changes in Scope: Revise Section 3.3.6 to include additional detail on approach to evaluation of air emission impacts.

27. **Comment: (B-1)** Comments state concerns about noise and structural damage from project blasting.

Consideration/Response: The EIS will evaluate blasting vibration and noise impacts.

Changes in Scope: Section 3.2.9 Odor and Noise will be moved under Section 3.3 of the Scoping Decision Document and will indicate that blasting vibrations and air overpressure will be discussed and evaluated in the EIS. A limited noise modeling/study for the proposed project will be conducted in accordance with state noise standards and will be included in the EIS. The EIS will also identify mitigation measures to potential noise and blasting impacts.

28. **Comment: (B-2)** Comment suggests that EIS should evaluate blasting impacts on drinking water wells.

Consideration/Response: Comment Noted.

Changes in Scope: Section 3.3.2 to indicate that the EIS will evaluate the potential for blasting to adversely impact nearby drinking water wells.

29. **Comment: (B-3)** Comment suggests that EIS should address onsite explosive storage.

Consideration/Response: Section 2.1 of the Scoping Decision Document identifies that the EIS will describe the proposed project. Any information about the project that was incomplete in the EAW will be included in EIS project description.

Changes in Scope: No changes in scope.

30. **Comment: (CE-1)** Comment suggests the cumulative effects analysis should include energy projects (i.e. Mesaba Energy).

Consideration/Response: The Mesaba energy project will be included in the appropriate cumulative effects analyses.

Changes in Scope: Revise Section 3.3.7 of the Scoping Decision Document to identify the cumulative effect issues identified in the EAW and include additional information about cumulative effects analysis.

31. **Comment: (CE-2)** Comment suggests evaluation of MPCA ability to meet cumulative workload responsibilities of inspections and oversight of recent projects.

Consideration/Response: Inspection and oversight responsibilities under MPCA permits will be maintained.

Changes in Scope: No changes in scope.

32. **Comment: (CE-3)** Comment suggests the cumulative effects analysis should include Blandin Mill expansion, Coal Gasification (Mesaba Energy), taconite expansion, Mesabi Nugget, and PolyMet as reasonably foreseeable future projects.

Consideration/Response: The Scoping EAW identifies that Blandin, Mesabi Nugget, and PolyMet are included as reasonably foreseeable projects. The Mesaba energy project and future expansion of taconite facilities will be included in the cumulative effects analysis, as appropriate.

Changes in Scope: Revise Section 3.3.7 of the Scoping Decision Document to identify the cumulative effect issues identified in the EAW and include additional information about cumulative effects analysis.

33. **Comment: (CE-4)** Comment suggests EIS should evaluate cumulative effect of global warming due to coal gasification because of the projects gas requirements.

Consideration/Response: The projects contribution to global warming due to gas requirements is a very small increment. Any global warming cumulative analysis associated with this project will not be meaningful given the small increment of contribution. The Council of Environmental Quality guidance on assessing cumulative effects identifies the assessments should be limited to those that are meaningful, therefore the guidance indicates it is appropriate not include analysis of effects that would not be meaningful.

Changes in Scope: No changes in scope.

34. **Comment: (CE-5)** Comment suggests evaluation of cumulative effects on air quality in Class I areas.

Consideration/Response: Section 3.3.7 of the Scoping Decision Document identifies that cumulative effects of air quality in Class I areas will be evaluated.

Changes in Scope: Revise Section 3.3.7 of the Scoping Decision Document to identify the cumulative effect issues identified in the EAW and include additional information about cumulative effects analysis.

35. **Comment: (CE-6)** Comment suggests cumulative effects analysis should include logging, urbanization, farming, and recreation as past, present, and reasonably foreseeable future impacts.

Consideration/Response: The inclusion of impacts in a cumulative effects analysis is dependent on the impact affecting the resource of concern within the temporal and geographic scope that is appropriate for the project specific impact. For example water quality impacts will only consider other actions that affect the same watershed. To the degree that the comment identifies activities that have an affect on the resource of concern within the appropriate temporal and geographic scope of the specific resource being evaluated, they will be included.

Changes in Scope: Revise Section 3.3.7 of the Scoping Decision Document to identify the cumulative effect issues identified in the EAW and include additional information about cumulative effects analysis.

36. **Comment: (CE-7)** Comment suggests cumulative effects analysis to wetlands should consider impacts from access roads, power lines, railway additions etc.

Consideration/Response: Commenter indicates that the cumulative effects analysis should include connected actions. This is appropriate and was envisioned as part of the analysis.

Changes in Scope: Revise Section 3.3.7 of the Scoping Decision Document to identify the cumulative effect issues identified in the EAW and include additional information about cumulative effects analysis.

37. **Comment: (CE-8)** Noise from truck traffic should be evaluated as a cumulative impact.

Consideration/Response: The rationale for excluding cumulative effects analysis of noise impacts was given on pages 79 and 80 of the EAW. The suggested analysis of noise impacts does not conform with the Council on Environmental Quality guidance to assessing cumulative effects. The suggested analysis is appropriate for a project specific analysis that is only cumulative in that it included all project related noise impacts. Section 3.3.9 of the Scoping Decision Document will indicate that a limited noise modeling/study for the proposed project will be conducted in accordance with state noise standards and will be included in the EIS. The EIS will also identify mitigation measures to potential noise and blasting impacts.

Changes in Scope: No changes in scope.

38. **Comment: (CE-9)** Comment suggests a cumulative effects analysis for noise sources related to the all sources of project related noise.

Consideration/Response: The rationale for excluding cumulative effects analysis of noise impacts was given on pages 79 and 80 of the EAW. The suggested analysis of noise impacts does not conform with the Council on Environmental Quality guidance to assessing cumulative effects. The suggested analysis is appropriate for a project specific analysis that is only cumulative in that it included all project related noise impacts. Section 3.3.9 of the Scoping Decision Document will indicate that blasting vibrations and air overpressure will be discussed and evaluated in the EIS. A limited noise modeling/study for the proposed project will be conducted in accordance with state noise standards and will be included in the EIS. The EIS will also identify mitigation measures to potential noise and blasting impacts.

Changes in Scope: No changes in scope.

39. **Comment: (CE-10)** Comment suggests cumulative impacts of mercury deposition should include areas within and outside of Minnesota.

Consideration/Response: Due to the long-range transport of mercury in the atmosphere, most of the mercury emitted in Minnesota is deposited outside of the State. Similarly, most of the mercury deposited in Minnesota originates from sources outside of the State. MPCA staff estimates that only about 10 percent of deposition within Minnesota is due to emissions within Minnesota. Although reductions of emissions in Minnesota will have little effect on deposition in Minnesota, it is still important and necessary to reduce the emissions, which in turn reduces deposition in other parts of the region and world, just as reductions are needed from regional and global sources to reduce mercury contamination of fish in Minnesota.

The cumulative approach will attempt to summarize long range transport issues and existing air modeling results both for Minnesota and nationally. Consistent with the approved scope of work for the risk assessment, the air modeling will be performed out to a radius of 10 to 20 kilometers. Maximum deposition around a facility typically occurs within 10 km of an emission source. This distance is wholly within the State of Minnesota. The multi-pathway risk assessment recognizes that there are differential fate and transport mechanisms.

Changes in Scope: No changes in scope.

40. **Comment: (CE-11)** Comment suggests that all affected water bodies in the mine project area should be included as a potentially affected resources

Responses: Further assessment of cumulative impacts to water bodies in the project area has resulted in the determination that the project specific assessment will provide the needed impact information. Additional cumulative analysis will not provide any meaningful information due to the lack or reasonably foreseeable projects that could also impact the resource.

Changes in Scope: Revise Section 3.3.7 of the Scoping Decision Document to remove water quality from cumulative impacts analysis.

41. **Comment: (CE-12)** Comment suggests geographic scope of cumulative wetland/watershed analysis should include the entire Iron Range.

Consideration/Response: Council on Environmental Quality guidance on assessing cumulative effects indicates that geographic scope of the analysis should be related to the resource that is being impacted. The area known as the Iron Range is located within three major watersheds. Impacts from one project in a specific watershed will not have a relationship to impacts in another watershed. It is appropriate to limit the cumulative watershed related impacts to the watersheds that are impacted by the specific project under evaluation.

Changes in Scope: No changes in scope.

42. **Comment: (CE-13)** Comment suggests the cumulative effects analysis should include water quality impacts.

Consideration/Response: Water quality was initially included as a cumulative impacts issue and has since been removed. There is the potential for project specific impacts to water quality that will be addressed in the EIS. There are however, no foreseeable significant cumulative impacts that were identified for this issue.

Changes in Scope: Water quality changes will be scoped-out of the cumulative effects analysis.

43. **Comment: (CR-1)** Comment suggests the EIS should evaluate cultural resources as they relate to the Lake Superior Chippewa Treaty of 1854.

Consideration/Response: The mine site is not located within the 1854 ceded territory, but is within the 1855 ceded territory. Evaluation of impacts to cultural resources identified in the 1855 treaty is appropriate.

Changes in Scope: Section 3.2.14 will be added to the scoping decision document and will indicate that The EIS will include a description of tribal rights reserved as part of the 1855 Ceded Territory Treaty. Impacts to the tribal rights as a result of the project will be evaluated and mitigation proposed as needed.

44. **Comment: (CR-2)** Comment suggests that a survey of the affected area is needed to assess potential impacts to historical/architectural resources.

Consideration/Response: Comment Noted

Changes in Scope: Section 3.2.9 of the scoping decision document was revised to indicate the EIS include a discussion of archeological, historical, and cultural resources using information presented in the EAW. The EIS will discuss the schedule and requirements for cultural resource investigations (archeological and historical resource studies) through the permitting and construction period.

45. **Comment: (CR-3)** Comment suggests tailings basin area within 1,000 feet of O'Brien Lake, Little O'Brien Lake and connecting streams needs to be evaluated for archeological resources.

Consideration/Response: Comment Noted

Changes in Scope: Section 3.2.9 of the scoping decision document was revised to indicate the EIS include a discussion of archeological, historical, and cultural resources using information presented in the EAW. The EIS will discuss the schedule and requirements for cultural resource investigations (archeological and historical resource studies) through the permitting and construction period.

46. **Comment: (CT-1)** Comment suggests that cover types for intermediate and final tailings basin reclamation should be included in the EIS.

Consideration/Response: Before and after cover types associated with the alternative tailings basin are identified under Item 10 of the EAW. In addition Section 3.2.2 of the scoping decision document indicates that specific mining and plant site development details will be developed prior to or during EIS preparation; the EIS will include updated cover type information and "before and after" cover type maps, and will describe the conversion of existing land cover types that will result from project implementation and reclamation. This will include the alternative tailings basin option.

Changes in Scope: No changes in scope.

47. **Comment: (EAW-3)** Comment suggests that water quality and temperature of wastewater discharge needs to be compared to water quality of receiving waters.

Consideration/Response: Section 3.3.4 of the scoping decision document identifies that wastewater discharges from the mine site and the tailings basin will be evaluated for impacts to receiving waters.

Changes in Scope: No changes in scope.

48. **Comment: (ENG-1)** EIS should discuss potential for collapse of saddle dividing pits 1 and 5 and mitigation measures.

Consideration/Response: The width of the saddle will be reduced to ~500 feet during mining. Pit 5 will be totally dewatered. Pits 1 and 2 will likely also be substantially dewatered to supply additional water for augmentation to Oxhide Lake, thereby reducing/eliminating the head differential between Pit 5 and Pits 1 and 2. Thus, the probability for the saddle collapsing is essentially non-existent.

Changes in Scope: No changes in scope.

49. **Comment: (ER-1)** Comment was concerned about notification and public review of scoping EAW and Draft Scoping Decision Document.

Consideration/Response: The notification and public review process was conducted in accordance with MN Rules Ch. 4410.2100. A notice was published in the EQB Monitor and a state-wide DNR press release.

Changes in Scope: No changes in scope.

50. **Comment: (ER-2)** Additional power generation to support the projects needs to be included as a connected action.

Consideration/Response: The power required for the project can be provided from existing sources, from market purchases of power and from power production facilities that are currently planned or proposed. Any new power production facilities would not be a direct result of the Minnesota Steel project and would be built (or not built) independently of the decision on the feasibility of the Minnesota Steel project. Separate environmental review by the PUC may be required for certain aspects of power generation.

Changes in Scope: No changes in scope.

51. **Comment: (ES-1)** EIS should evaluate potential erosion and sedimentation impacts to all affected water bodies in Swan Lake and Prairie River watersheds.

Consideration/Response: Section 3.2.5 proposes to evaluate runoff from erosion-prone areas of the site including downstream sensitive areas of Oxhide Creek. In addition, Section 3.3.1 indicates a study on stream geomorphology will be conducted which will include evaluating potential sedimentation and erosion.

Changes in Scope: No changes in scope.

52. **Comment: (FW-1)** Concern about impacts to spawning in O'Brien Creek.

Consideration/Response: Section 3.2.3 of the draft scoping decision document indicates the EIS will include a qualitative description of fisheries resources and angling activity in O'Brien Creek and will discuss the potential impacts to fisheries and angling that could result from varying water levels and flows.

Changes in Scope: Move Section 3.2.3 - Fish and Wildlife Resources and place under Section 3.3.8 of the final scoping document.

53. **Comment: (FW-2)** Concern about wildlife and wildlife habitat (pollution, habitat barriers, change in species, etc.).

Consideration/Response: The EIS will evaluate wildlife habitat loss and obstructions to habitat corridors as part of the cumulative impacts analysis (Section 3.3.7 of scoping decision document). The EIS will also include a qualitative description of wildlife species and habitat present in the project area and describe potential impacts and mitigation, as warranted (Section 3.3.8 of scoping decision document). The ecological risk assessment will evaluate impacts of emissions from the project on the viability of wildlife and plant species with emphasis on threatened and endangered species.

Changes in Scope: No changes in scope.

54. **Comment: (FW-3)** Consider cover types changes and impacts to wildlife habitat.

Consideration/Response: The cumulative effects analysis section of the EIS will address potential changes in cover type and habitat loss/fragmentation as it pertains to wildlife.

Changes in Scope: No changes in scope.

55. **Comment: (FW-4)** EIS should evaluate air impacts to rare plant species.

Consideration/Response: Air emissions and potential impacts will be a major topic in the EIS. The EIS will include an ecological risk assessment and will evaluate multi-media impacts from various air quality control devices.

Changes in Scope: Revise Section 3.3.6 to include additional detail on approach to evaluation (ecological risk assessment) of air emission impacts as it pertains to plant and wildlife.

56. **Comment: (FW-5)** Marschner's classification is outdated, new classification system used by NRR1 and Blandin EIS should be used.

Consideration/Response: Marschner's map is just one of a number of data resources that will be used to aid in classification and will primarily be used to establish a baseline.

Changes in Scope: No changes in scope.

57. **Comment: (FW-6)** EIS should address impacts to fish in area mine pits that are designated recreational or wildlife habitat.

Consideration/Response: The EIS will not address impacts to fish in area mine pits. The EIS will suggest impact mitigation strategies where warranted, and will describe long-term mine pit reclamation strategies to provide fisheries habitat when mining ceases.

Changes in Scope: No changes in scope.

58. **Comment: (FW-7)** Additional endangered species and state listed species surveys should be undertaken so as to have more current data.

Consideration/Response: Section 3.2.3 indicates the EIS will use existing and, if necessary, additional information to support federal regulatory requirements for threatened and endangered species.

Changes in Scope: No changes in scope.

59. **Comment: (FW-8)** EIS should include quantitative assessment of wildlife species impacted.

Consideration/Response: Quantitative estimates will be made of impacts on endangered animal species, focusing on the Canada Lynx. Additional quantitative study will evaluate the effect of habitat fragmentation on sensitive and cover-type sensitive species. Quantitative assessment of general wildlife impacts would require collection of large amount habitat and population data for each species and use of population models for each species; this effort would not be justified for common species.

Changes in Scope: No changes in scope.

60. **Comment: (FW-9)** EIS should evaluate impacts to trout stream designation of Pickerel Creek.

Consideration/Response: The EIS will include a qualitative description and evaluation of the fishery resources of Pickerel Creek (Section 3.3.8 of scoping decision document).

Changes in Scope: No changes in scope.

61. **Comment: (LU-1)** The EIS should evaluate the compatibility of the proposed Expanded Stage I Tailings Basin with current and proposed land use near Swan Lake.

Consideration/Response: The boundaries of the proposed Expanded Stage I Tailings Basin and the north end of Swan Lake share Section 18. The proposed scope of EIS currently does not include the evaluation of the compatibility with plans and land use regulations that pertain to rezoning and variance issues (Item 27, EAW). However, Item 9 of the EAW does describe project compatibility with adjacent and nearby land uses and is proposed to be evaluated further in the EIS. The proposed Stage I Tailings Basin boundaries in relation to Swan Lake are further described in the Tailings Basin section on page 13 of the EAW.

Changes in Scope: The scoping decision document (Section 3.2.1) will be revised to include a discussion of the all required rezoning and variances as they pertain to the Itasca County Land Use Plan.

62. **Comment: (LU-2)** Concerned that the evaluation of potential land use impacts only includes nearby receptors and would like the evaluation to be expanded to a three mile radius from the proposed borders of the site.

Consideration/Response: The potential impacts and various pollutant mediums that may be created by the project have different and varying boundaries. It would not be practical to place a standard boundary when evaluating the various impacts. The specific impacts (e.g. air, water, traffic) will each have specific boundaries with respect to evaluating their meaningful impacts.

Changes in Scope: No changes in scope.

63. **Comment: (LU-3)** The area of potential effect should be determined as it relates to history, architecture, and archaeological resources.

Consideration/Response: Comment Noted.

Changes in Scope: Section 3.2.9 of the scoping decision document was revised to indicate that the EIS will include a discussion of archeological, historical, and cultural resources using information presented in the EAW. The EIS will discuss the schedule and requirements for cultural resource investigations (archeological and historical resource studies) through the permitting and construction period.

64. **Comment: (MISC-1)** Concern about not addressing previous mining activity impacts.

Consideration/Response: The EIS will address cumulative impacts as they relate to past, present, and reasonably foreseeable future actions of not only mining, but other industry and human actions as well.

Changes in Scope: No change in scope.

65. **Comment: (MISC-2)** Concern about nearby residents' property being purchased and changes in current property values.

Consideration/Response: The proposed mine boundary is non-authoritative/administrative (planning purposes only) and does not imply ownership or proprietary rights for the operator/developer. Minnesota DNR regulations do not require an uninhabited permit to mine boundary around the facility and property; property owners are not required to sell if located within the boundary. The following statement on page 12 of the EAW is not correct and should have been deleted: *MNDNR mining regulations require Minnesota Steel to maintain an uninhabited boundary around the facility. Therefore residences and other private property within the Permit to Mine boundary (as shown on Figure 5-4) will be purchased by Minnesota Steel.*

Changes in Scope: No changes in scope.

66. **Comment: (MISC-3)** Would like more information about Minnesota Steel's corporate entity.

Consideration/Response: Minnesota Steel Industries, LLC is a limited liability company registered in the State of Minnesota (Filing # 38432-LLC). Basic business information on Minnesota Steel Industries can be found on the Minnesota Secretary of State's website at www.sos.state.mn.us through their on-line services search.

Changes in Scope: No changes in scope.

67. **Comment: (MISC-4)** Concern about increase in insurance due to proposed road closures.

Consideration/Response: The EIS will not address insurance issues related to road closures. The EIS is intended to provide information about potential environmental impacts and how they may be avoided or minimized, insurance issues are beyond the scope of the EIS. However, the EIS will evaluate the proposed road access to the plant site and evaluate any potential traffic impacts and mitigation as appropriate. Itasca County has prepared a traffic model of the roads in the area under existing conditions and with the proposed project. The study includes proposed roadway design improvements to mitigate impacts at Highway 169 and Highway 65. Using this study the traffic impacts will be evaluated with respect to change in the level of service provided by the roadway, additional noise and dust, and safety implications.

Changes in Scope: No changes in scope.

68. **Comment: (MISC-5)** EIS should include information on wages, working conditions, and benefits.

Consideration/Response: The general social and economic impacts of the project will be studied in the EIS. This will include the direct and indirect effects on local economic development, tax base and demand for public services. The working conditions at the facility are not an impact on the surrounding environment and will not be included as a topic of study in the EIS. These conditions are regulated by the Minnesota Department of Labor and Industry and U.S. Department of Labor.

Changes in Scope: Socioeconomics will be added to Section 3.2 and the general social and economic impacts of the project will be studied in the EIS. This will include the direct and indirect effects on local economic development, tax base and demand for public services.

69. **Comment: (MISC-6)** Would like to see a chart comparing Brazilian air/water quality and pollutant emissions, if the plant is to be modeled after a plant in Brazil.

Consideration/Response: The plant's performance will be required to meet applicable Minnesota and Federal standards, not Brazilian or other standards. Where monitoring data from existing plants of comparable design are available, these may be used to help determine whether the proposed design will meet Minnesota and U.S. requirements.

Changes in Scope: No changes in scope.

70. **Comment: (MISC-7)** The EIS should evaluate cancer rates and causes of cancer in the area, as well as potential health affects of the project.

Consideration/Response: A human health screening-level risk assessment (HHSRA) and ecological screening-level risk assessment (ESRA) will be conducted and included as part of the EIS. The purpose and goal of the assessments are to evaluate the potential human health and ecological risk associated with potential emissions to ambient air from the proposed Minnesota Steel facility under routine operating conditions and to characterize potential human health and ecological risks associated with tailings basin discharge to land, groundwater, and surface water.

Changes in Scope: No changes in scope.

71. **Comment: (MISC-8)** EIS should include monitoring and enforcement for water and air pollution.

Consideration/Response: The project specific permits will provide schedules and specifics of monitoring. Enforcement actions will be taken if permit conditions are not met. A conceptual monitoring plan tied to potential air quality, surface water quality, and groundwater quality impacts will be included in the EIS.

Changes in Scope: No changes in scope.

72. **Comment: (MISC-9)** The EIS should include (make public) all calculations used to estimate air, water, and solid waste emissions.

Consideration/Response: The rules allow companies to maintain some proprietary information as non-public information. The status of information is determined on a case-by-case basis. Because the proposer has stated that the project will consist primarily of “commercially available” technology, it is expected that little if any information will be held as non-public.

Changes in Scope: No changes in scope.

73. **Comment: (MISC-10)** The EIS should evaluate more than 20-years of mining. The EIS should assess the potential 70 year operation of the project.

Consideration/Response: Connected or phased actions beyond the proposed 20 year project life or a production trigger of 55 million tons of steel, whichever comes first, will be addressed in accordance with MN Rules Ch. 4410.1000, Sub. 4 as follows, “In connected actions and phased actions where it is not possible to adequately address all the project components or stages at the time of the initial EAW, a new EAW must be completed before approval and construction of each subsequent project component or stage. Each EAW must briefly describe the past and future stages or components to which the subject of the present EAW is related.”

Changes in Scope: Section 4.0 of the scoping decision document will be revised to include reference to Minnesota Rules as they pertain to connected or phased actions, specifically MN Rule Ch. 4410.1000, Sub. 4.

74. **Comment: (MISC-11)** The EIS should include discussion of the dam and basin integrity of the proposed Stage I Tailings Basin.

Consideration/Response: Based on information from the previous mining activities at this location, it is unlikely that any of the currently proposed tailings disposal sites will contain physical attributes from a slope/dam stability or structural integrity point of view that will prove fatally flawed. However, during the EIS process, testing and engineering studies will be required in order to not only prove stability and structural integrity, but also demonstrate that the proposed design, operation, closure and reclamation of the tailings basin and its dams are consistent with prudent engineering practices and comply with regulatory requirements for protection of air, water, and land use. Section 3.3.1 indicates that dam safety is a major issue and the EIS will include the respective engineering studies.

Changes in Scope: Section 3.3.5 of the scoping decision document will be appended to indicate that the EIS will include design information and engineering studies that will evaluate the tailings basin design for the proposed Expanded Stage I Tailings Basin and the Alternative Tailings Basin to ensure structural stability and safety of the tailings dams. The EIS will evaluate the feasibility, benefits, and impacts of the proposed tailings basin designs.

75. **Comment: (MISC-12)** The EIS needs to better address the number of residences that may be bought-out to comply with the permit to mine boundaries.

Consideration/Response: The proposed mine boundary is non-authoritative/administrative (planning purposes only) and does not imply ownership or proprietary rights for the operator/developer. Minnesota DNR regulations do not require an uninhabited permit to mine boundary around the facility and property; property owners are not required to sell if located within the boundary. The following statement on page 12 of the EAW is not correct and should have been deleted: *MNDNR mining regulations require Minnesota Steel to maintain an uninhabited boundary around the facility. Therefore residences and other private property within the Permit to Mine boundary (as shown on Figure 5-4) will be purchased by Minnesota Steel.*

However, Section 3.2.1 of the Scoping Decision Document identifies that the EIS will discuss potential conflicts to nearby residences.

Changes in Scope: No changes in scope.

76. **Comment: (MISC-14)** The EIS should list all necessary individual NPDES permits and their discharge locations.

Consideration/Response: The EIS will list all necessary NPDES permits.

Changes in Scope: No changes in scope.

77. **Comment: (MISC-15)** How will sanitary wastewater be transported to Nashwauk treatment plant from the plant site.

Consideration/Response: A sewer force main would be constructed from the plant along CSAH 58 to an existing lift station in Nashwauk. Section 3.2.11 of the scoping decision document indicates the sewer force main route will be described in the EIS.

Changes in Scope: No changes in scope

78. **Comment: (MISC-17)** The EIS should describe how many new haul roads are anticipated and their locations.

Consideration/Response: Minnesota Steel intends to use the existing Butler Taconite haul roads and previously disturbed areas to the greatest extent. Due to the compact nature of the mine plan there are no long stretches of haul roads between pits and stockpiles.

Changes in Scope: Section 3.2.1 of the scoping decision document will be revised to include additional haul roads.

79. **Comment: (MISC-18)** The EIS should include a detailed description of the hydrological relationship among all pits and how water will be transferred between them.

Consideration/Response: The proposed project description in Section 2.1 of the scoping decision document will identify area mine pits as they relate to the project and the hydrological relationship between the identified pits will be discussed and evaluated in the water appropriations permit application that will be included as part of the EIS. See Sections 3.3.1 and 3.3.2 of the Scoping Decision Document.

Changes in Scope: No changes in scope.

80. **Comment: (MR-1)** The mineland reclamation plan needs to include the processing facility site. The plan should include a discussion of financial assurances that disturbances and wastes can be mitigated at all steps of the projects life cycle.

Consideration/Response: The mineland reclamation plan will be discussed in the EIS and the plan does include the processing site per DNR deactivation and closure rules (MN Rules 6130.4100, Sub. 2D). Financial assurances are evaluated in the mineland reclamation plan and are defined in MN Rules 6130.6000.

Changes in Scope: Mineland reclamation will be added to section 3.2 of the scoping decision document and will indicate that the EIS will discuss the draft mineland reclamation plans and evaluate practical and reasonable reclamation options as they pertain to identified impacts and mitigation strategies.

81. **Comment: (MR-2)** Concern about reclamation in case of premature closure.

Consideration/Response: The mine shall follow the closure process in accordance with MN Rules 6130.4100.

Changes in Scope: No changes in scope.

82. **Comment: (MR-3)** What is the post-mining fate of Pit 5? Will it be backfilled with tailings or flooded?

Consideration/Response: The watershed and mineland reclamation plans will evaluate the long-term fate of Pit 5. However, it is anticipated that Pit 5 will not ever be completely flooded/backfilled.

Changes in Scope: No changes in scope.

83. **Comment: (N-1)** Noise should be addressed under potentially significant impacts expected. A noise level survey should be conducted to prepare a sound dispersion model.

Consideration/Response: Blasting vibrations and air overpressure will be discussed and evaluated in the EIS. A limited noise modeling/study for the proposed project will be conducted in accordance with state noise standards and will be included in the EIS.

Changes in Scope: Section 3.3.9 of the scoping decision document will indicate that blasting vibrations and air overpressure will be discussed and evaluated in the EIS. A limited noise modeling/study for the proposed project will be conducted in accordance with state noise standards and will be included in the EIS. The EIS will also identify mitigation measures to potential noise and blasting impacts.

84. **Comment: (PU-1)** Concern about high voltage power lines and the path they will be routed.

Consideration/Response: One or more transmission lines will be required to supply power to the project. Conceptual plans for connecting to the power grid have been submitted by Minnesota Steel, however the power line routes displayed on figures in the EAW are preliminary. Section 3.2.11 of the scoping decision document indicates that the EIS will include information on design and routing of electric transmission lines. Additional design and study will be required in the route selection process by the Public Utilities Commission (PUC) and will be discussed in the EIS.

Changes in Scope: Section 3.2.11 will indicate that the EIS will include information on conceptual design and the technical and regulatory processes for routing of electric transmission lines. Final design and location of the transmission line will be determined by the Minnesota Public Utilities Commission's site selection process. This process will be described in the EIS as well as potential impacts from the currently proposed location and design.

85. **Comment: (RA-1)** Recommend using guidance document "Air Toxic Risk Assessment Vol. 1 & 2, instead of Human Health Risk Assessment Protocol for Hazardous Waste Combustion Factors.

Consideration/Response: The Human Health Risk Assessment Protocol for Hazardous Waste Combustion Factors (HHRAP) guidance will be used in preparing the risk assessment for Minnesota Steel's project. The HHRAP guidance is also encompassed within the Air Toxics Risk Assessment Reference Library. Similar to the Air Toxics Risk Assessment Reference Library, the HHRAP guidance brings together information from other risk assessment guidance and method documents prepared by EPA. The HHRAP guidance also contains the latest advancements in risk assessment science and policy, as well as experienced gained by conducting and reviewing other risk assessments. The MPCA recognizes there are some differences between the two EPA guidance documents and has determined that the HHRAP guidance is applicable to this project. Minnesota Steel Industries has agreed to identify and justify any changes or modifications between the HHRAP and any values and approaches that they may propose to use in the site specific risk assessment.

Changes in Scope: No changes in scope.

86. **Comment: (SE-1, SE-2, SE-3, SE-4, SE-5)** Include socioeconomic analysis in the EIS.

Consideration/Response: The EIS will address the socioeconomic effects of the project. The EIS however, will not address the economic viability of the project, as the proposer has done an economic analysis of the project and would not be proposing it if it were not economically viable.

Changes in Scope: Socioeconomics will be added to Section 3.2 and the general social and economic impacts of the project will be studied in the EIS. This will include the direct and indirect effects on local economic development, tax base and demand for public services.

87. **Comment: (SW-1)** EIS should disclose environmental impacts of the steel making plant including the use of coal, chemicals, or energy in the process. The EIS must document that "slag" is a non-hazardous waste.

Consideration/Response: Page eight, paragraph two of the EAW specifies slag as a non-hazardous waste product. Table 20-1 further details slag and the proposed waste management options.

Changes in Scope: Section 3.3.5 will indicate the EIS will discuss process wastes and solid wastes (emission control dust and slag) generated from the entire project including characterization, quantity, storage, handling, treatment & disposal, and best management practices.

88. **Comment: (SW-2)** EIS should evaluate tailings disposal for 75 years of mining.

Consideration/Response: Connected or phased actions beyond the proposed 20 year project life or a production trigger of 55 million tons of steel, whichever comes first, will be addressed in accordance with MN Rules Ch. 4410.1000, Sub. 4 as follows, "In connected actions and phased actions where it is not possible to adequately address all the project components or stages at the time of the initial EAW, a new EAW must be completed before approval and construction of each subsequent project component or stage. Each EAW must briefly describe the past and future stages or components to which the subject of the present EAW is related."

Changes in Scope: Section 4.0 of the scoping decision document will be revised to include reference to Minnesota Rules as they pertain to connected or phased actions, specifically MN Rule Ch. 4410.1000, Sub. 4.

89. **Comment: (SW-3)** Concerned about the stability of proposed slope of tailings basin.

Consideration/Response: Tailings basins will be designed in accordance with MN Rules 6130.3000 (Design, Construction, and Operation of Tailings Basins).

Changes in Scope: Section 3.3.5 of the scoping decision document will be appended to indicate that the EIS will include design information and engineering studies that will evaluate the tailings basin design for the proposed Expanded Stage I tailings basin and the Alternative tailings basin to ensure structural stability and safety of the tailings dams. The EIS will evaluate the feasibility, benefits, and impacts of the proposed tailings basin designs.

90. **Comment: (SW-4)** EIS should evaluate handling, treatment and disposal of all process wastes, including quantity, chemical composition, and best management practices.

Consideration/Response: Section 3.3.5 indicates the EIS will characterize solid wastes and the potential impacts of available disposal options. Table 20-1 in the EAW further summarizes project associated wastes and proposed dispositions.

Changes in Scope: Section 3.3.5 will indicate the EIS will discuss process wastes and solid wastes (emission control dust and slag) generated from the entire project including characterization, quantity, storage, handling, treatment & disposal, and best management practices.

91. **Comment: (SW-5)** EIS should evaluate taconite ore and overburden to assess potential impacts to human health and the environment.

Consideration/Response: The EIS will include a human health and ecological risk assessment that will evaluate the potential impacts to human health and the environment from all appropriate aspects of the project, including fugitive emissions from taconite ore and overburden handling.

Changes in Scope: No changes in scope.

92. **Comment: (SW-6)** Unclear as to why small on-site debris landfill can be constructed without environmental review or regulation.

Consideration/Response: An on-site landfill is no longer being considered for this project. However, in accordance with MN Rules Ch. 4410, a mandatory environmental review is not required for a landfill of this type. Should it be determined a landfill is necessary, the permittee will be required to obtain a MPCA solid waste permit for the construction and operation of the landfill.

Changes in Scope: No changes in scope.

93. **Comment: (SW-7)** A time frame should be developed for the onsite storage of slag and BAT developed for erosion control of slag piles.

Consideration/Response: Characterization of the waste will determine how the waste is handled.

Changes in Scope: No changes in scope.

94. **Comment: (SW-8)** Radioactive material should be included in Table 20-1 and impacts discussed.

Consideration/Response: Radioactive materials are used in gauges that measure density of slurries and in monitoring of the operation of the continuous caster mold. The handling of the materials is regulated by the U.S. Nuclear Regulatory Commission. One or more authorized persons at the plant will be licensed by the NRC and will manage the sources in accordance with their rules.

The sources used in the gauges are long-lived and do not need replacement so annual waste quantities should be near zero. If sources are retired they will be disposed of by return to the original instrumentation vendor or through appropriate disposal at a licensed facility for low-level radioactive waste. Section 3.3.5 will discuss process wastes and solid wastes (emission control dust and slag) generated from the entire project including characterization, quantity, storage, handling, treatment & disposal, and best management practices.

Changes in Scope: No changes in scope.

95. **Comment: (T-1)** Concern about increase in traffic and dust from traffic.

Consideration/Response: The EIS will evaluate the proposed road access to the plant site and evaluate any potential traffic impacts and mitigation as appropriate. Itasca County has prepared a traffic model of the roads in the area under existing conditions and with the proposed project. The study includes proposed roadway design improvements to mitigate impacts at Highway 169 and Highway 65. Using this study the traffic impacts will be evaluated with respect to change in the level of service provided by the roadway, additional noise and dust, and safety implications.

Changes in Scope: Section 3.2.7 of the scoping decision document to indicate that the EIS will evaluate the proposed road access to the plant site and evaluate any potential traffic impacts and mitigation as appropriate. Itasca County has prepared a traffic model of the roads in the area under existing conditions and with the proposed project. The study includes proposed roadway design improvements to mitigate impacts at Highway 169 and Highway 65. Using this study the traffic impacts will be evaluated with respect to change in the level of service provided by the roadway, additional noise and dust, and safety implications.

96. **Comment: (T-2)** Impacts as they relate to TH169 and TH65, and CSAH 58.

Consideration/Response: The EIS will evaluate the proposed road access to the plant site and evaluate any potential traffic impacts and mitigation as appropriate. Itasca County has prepared a traffic model of the roads in the area under existing conditions and with the proposed project. The study includes proposed roadway design improvements to mitigate impacts at Highway 169 and Highway 65. Using this study the traffic impacts will be evaluated with respect to change in the level of service provided by the roadway, additional noise and dust, and safety implications.

Changes in Scope: Section 3.2.7 of the scoping decision document to indicate that the EIS will evaluate the proposed road access to the plant site and evaluate any potential traffic impacts and mitigation as appropriate. Itasca County has prepared a traffic model of the roads in the area under existing conditions and with the proposed project. The study includes proposed roadway design improvements to mitigate impacts at Highway 169 and Highway 65. Using this study the traffic impacts will be evaluated with respect to change in the level of service provided by the roadway, additional noise and dust, and safety implications.

97. **Comment: (T-3)** EIS should evaluate additional weight limits on roads, increased traffic and accident rates.

Consideration/Response: The EIS will evaluate the proposed road access to the plant site and evaluate any potential traffic impacts and mitigation as appropriate. Itasca County has prepared a traffic model of the roads in the area under existing conditions and with the proposed project. The study includes proposed roadway design improvements to mitigate impacts at Highway 169 and Highway 65. Using this study the traffic impacts will be evaluated with respect to change in the level of service provided by the roadway, additional noise and dust, and safety implications.

Changes in Scope: Section 3.2.7 of the scoping decision document to indicate that the EIS will evaluate the proposed road access to the plant site and evaluate any potential traffic impacts and mitigation as appropriate. Itasca County has prepared a traffic model of the roads in the area under existing conditions and with the proposed project. The study includes proposed roadway design improvements to mitigate impacts at Highway 169 and Highway 65. Using this study the traffic impacts will be evaluated with respect to change in the level of service provided by the roadway, additional noise and dust, and safety implications.

98. **Comment: (T-4)** Increased rail traffic needs to be evaluated in EIS.

Consideration/Response: Section 3.2.11 of the scoping decision document indicates the EIS will include information on the impacts of additional railroad lines.

Changes in Scope: No changes in scope.

99. **Comment: (V-1)** Prevent light pollution. The EIS should discuss "plume blight".

Consideration/Response: Section 3.2.10 of the scoping decision document indicates the EIS will identify and discuss potential lighting impacts and mitigation strategies. In addition, visibility impacts due to air emissions will be evaluated in the air permitting process and the results of the visibility evaluation will be included in the EIS.

Changes in Scope: No changes in scope.

100. **Comment: (V-2)** Visual impact of 400' tower.

Consideration/Response: Comment Noted

Changes in Scope: Section 3.2.10 will be revised to indicate that Visual impacts are not anticipated to be significant, however limited information beyond what is provided in the EAW will be used to identify potential lighting impacts, visual impacts from proposed facility structures, and mitigation options.

101. **Comment: (WET-1)** How much of the impacted wetlands needs to be replaced?

Consideration/Response: The lost functions and values of the waters of the U.S., including wetlands, directly and indirectly impacted by the project will need to be replaced. The Wetland Conservation Act (WCA) and Clean Water Act (CWA) provides for a no-net-loss provision and a minimum of 1:1 compensatory wetland mitigation replacement ratio. Item #12 of the EAW (p.24-31) describes impacts to wetlands. Mitigation is specifically described under Proposed Mitigation Measures to Compensate for Unavoidable Wetland Impacts (p.29). Section 3.3.1 of the scoping decision document indicates that wetland delineations, mitigation sites, and feasibility of wetland mitigation will be evaluated in the EIS. The potential for indirect wetland impacts will also be included in the EIS. A wetland delineation report with an evaluation of functions and values based on the Minnesota Routine Assessment Methodology for Evaluating Wetland Functions (MNRAM) format and wetland mitigation plan will be included as part of the EIS.

Changes in Scope: Revise Section 3.3.1 and mention the wetland delineation report, functional analysis, and the wetland mitigation plan that will be included in the EIS.

102. **Comment: (WET-2)** The EIS should evaluate wetland impacts from 75 year mine potential.

Consideration/Response: Connected or phased actions beyond the proposed 20 year project life or a production trigger of 55 million tons of steel, whichever comes first, will be addressed in accordance with MN Rules Ch. 4410.1000, Sub. 4 as follows, "In connected actions and phased actions where it is not possible to adequately address all the project components or stages at the time of the initial EAW, a new EAW must be completed before approval and construction of each subsequent project component or stage. Each EAW must briefly describe the past and future stages or components to which the subject of the present EAW is related."

Changes in Scope: Section 4.0 of the scoping decision document will be revised to include reference to Minnesota Rules as they pertain to connected or phased actions, specifically MN Rule Ch. 4410.1000, Sub. 4.

103. **Comment: (WET-3)** The quantity and quality of the impacted wetlands should be evaluated for plant and wildlife use for both the preferred and alternative tailings basins.

Consideration/Response: Section 3.3.8 of the scoping decision document indicates the EIS will include a qualitative description of wildlife present in the project area and will describe potential impacts and suggest mitigation. Section 3.2.3 states the EIS will include results of a rare plant survey and will evaluate potential impacts to listed species and suggest mitigation as warranted. The EIS will include a functional analysis of delineated wetlands in the proposed project areas.

Changes in Scope: Revise Section 3.3.8 to include wildlife species and wildlife habitat.

104. **Comment: (WET-4)** The water balance and watershed yield need to include impacts to wetland hydrology. Analysis of impacts to wetland hydrology and plant communities should be included in EIS.

Consideration/Response: The EIS will address both direct and indirect impacts to waters of the U.S., including wetlands, resulting from the proposed project. Indirect impacts include those from groundwater drawdown and changes to watersheds. Indirect and secondary impacts (loss, degradation, change) to wetlands, including changes in wetland hydrology will be addressed in the EIS as indicated in Section 3.3.1 of the scoping decision document.

Changes in Scope: No changes in scope.

105. **Comment: (WET-5)** The wetland mitigation plan should include mitigation for a 20 year plan not just 5 years.

Consideration/Response: The compensatory wetland mitigation plan will include detailed mitigation plans for impacts to waters of the U.S., including wetlands, which would occur during the first five years of operation. The compensatory wetland mitigation plan will include conceptual mitigation plans for the impacts that would occur during years six through twenty. Minnesota Steel would be required to provide detailed wetland mitigation plans for each remaining five-year increment at least one year before each increment begins.

Changes in Scope: No changes in scope.

106. **Comment: (WQL-1)** General concern about water quality.

Consideration/Response: Sections 3.3.1 to 3.3.4 indicate the EIS will include a water balance that will outline existing and future discharges to surface water bodies and will evaluate water quantity and quality concerns. The water balance will be used to develop a watershed yield and model to predict changes in watershed yield and affected water bodies. A dissolved solids balance will be prepared for tailings basin process water. An analysis of stream sensitivity will be performed to assess how predicted flow changes may affect stream geomorphology. A water chemistry balance and a detailed accounting of the chemicals and wastewater characteristics will be developed and included in the EIS.

Changes in Scope: No changes in scope.

107. **Comment: (WQL-2)** Concern about tailings and tailings dust in Swan Lake and overall water quality of Swan Lake.

Consideration/Response: Section 3.3.4 of the scoping decision document indicates that the EIS will include a water chemistry balance for processing water and tailings basin seepage/discharges. The information will be used to identify potential impacts to receiving waters. The EIS will also include an evaluation of nutrient loading changes to Swan Lake resulting from changes to inflow, tailings basin discharge/seepage and increased sewage flow through the Nashwauk sewage treatment plant through a nutrient budget analysis as well as the evaluation of an onsite sanitary wastewater treatment system to reduce nutrient loading to Swan Lake.

Section 3.3.3 indicates the EIS will include a watershed balance developed from the project water balance and changes in watershed runoff due to mining activities project. A model will be developed to predict changes in watershed yield and affected water bodies. This information will be used to identify potential impacts, mitigation and monitoring to minimize impacts to area water bodies. Potential sources of sediment and pollutant discharges from the site will be assessed and mitigation measures discussed.

The human health and ecological risk assessment will also include an evaluation of tailings and tailings dust and the potential effects to human health and the environment.

Changes in Scope: No changes in scope.

108. **Comment: (WQL-3)** Concern about water quality below Swan Lake.

Consideration/Response: There is no defined need to monitor below Swan Lake. The EIS will address water quality impacts to streams draining into Swan Lake.

Changes in Scope: No changes in scope.

109. **Comment: (WQL-4)** Concern about Snowball water quality.

Consideration/Response: The EIS will evaluate the water quality of Snowball Lake as it relates to lake productivity and potential augmentation requirements.

Changes in Scope: Section 3.3.1 will be appended to indicate that the EIS will evaluate the water quality of Snowball Lake, Oxhide Lake, and Swan Lake as it relates to lake productivity, trophic status and potential augmentation needs/requirements.

110. **Comment: (WQL-5)** Evaluation of groundwater quality impacts to wells.

Consideration/Response: The EIS will include a discussion of the potential for groundwater contamination from process chemicals and hazardous materials used or stored at the project site (Section 3.2.6, scoping decision document). Section 3.3.2 states the EIS will evaluate potential impacts to nearby wells due to mine pit dewatering.

Changes in Scope: Change third paragraph in Section 3.3.2 to read: Potential quality and quantity impacts to nearby wells due to mine pit dewatering will be evaluated in the EIS by examination of regional stratigraphy and proposed water levels in nearby lakes. Add seepage from tailings basins to Section 3.2.6.

111. **Comment: (WQL-6)** Evaluation of chemical fate for flotation chemicals in tailings and tailings basin water.

Consideration/Response: The flotation chemicals (amine collector and methyl isobutyl carbinol) identified in the EAW have been used for nearly 30 years in the taconite industry. Evaluation studies have been performed on the toxicity and the fate of these chemicals in the taconite process. The EIS contractor will use these studies along with other available information on the flotation chemicals to evaluate the impact that the flotation chemicals will have on the environment. Amine collector (DA-16 or similar) and methyl isobutyl carbinol are the flotation chemicals identified in the EAW and will be evaluated in the EIS. If after production begins, Minnesota Steel Industries wants to switch to different chemicals, then the new chemical or chemicals will have to be evaluated prior to use and permitting.

Changes in Scope: Section 3.3.4 of the scoping decision document will be revised to indicate that the EIS will evaluate the impact that the flotation chemicals identified in the EAW (Amine collector (DA-16 or similar) and methyl isobutyl carbinol) will have on the environment.

112. **Comment: (WQL-7)** Mercury impacts to lakes.

Consideration/Response: A water chemistry balance to be included in the EIS will be used to identify potential mercury concerns in receiving waters (Section 3.3.4 of Scoping decision document). In addition, the EIS will include an analysis of mercury control technologies for the project.

Changes in Scope: No changes in scope.

113. **Comment: (WQL-8)** Concern that geographic scope of air & water quality impact analysis is too small.

Consideration/Response: The geographic scope of the various air and water quality studies that are proposed for the project are delineated to evaluate greatest meaningful impacts from the project.

Changes in Scope: No changes in scope.

114. **Comment: (WQL-9)** EIS should evaluate potential impact to groundwater from process water and tailings basin.

Consideration/Response: Section 3.2.6 of scoping decision document indicates that the EIS will include a discussion of the potential for groundwater contamination from process chemicals and hazardous materials used or stored at the project site and seepage from tailings basins.

Changes in Scope: No changes in scope.

115. **Comment: (WQL-10)** Water quality as it pertains to dewatering discharges and the need to sample.

Consideration/Response: Specific monitoring frequency for mine pit dewatering will be determined through the NPDES permit process. Adequate monitoring will be required in order to verify compliance.

Changes in Scope: No changes in scope.

116. **Comment: (WQL-11)** EIS should clarify whether the "no past noticeable effects to local wells from Pits (1,2,and 5) dewatering" includes both water quality and levels.

Consideration/Response: The EIS will evaluate the potential water quality and quantity impacts to nearby wells due to mine pit dewatering. The hydrologic relationships of the mine pits will be discussed in the EIS.

Changes in Scope: Change third paragraph in Section 3.3.2 to read: Potential quality and quantity impacts to nearby wells due to mine pit dewatering will be evaluated in the EIS by examination of regional stratigraphy and proposed water levels in pits and nearby lakes.

117. **Comment: (WQL-12)** EIS should discuss specifics of the NPDES permits (types of effluent, amount, and fate).

Consideration/Response: The EIS will include a list of NPDES permits, general discharge locations, and chemicals of potential concern.

Changes in Scope: No changes in scope.

118. **Comment: (WQL-13)** EIS should evaluate water quality impacts from discharging process water.

Consideration/Response: Section 3.3.4 of the scoping decision document indicates that the EIS will include a water chemistry balance for processing water and tailings basin seepage/discharges. The information will be used to identify potential impacts to receiving waters.

Changes in Scope: No changes in scope.

119. **Comment: (WQL-14)** EIS should discuss categorical effluent standards as they pertain to discharges of mixed waste water.

Consideration/Response: The EIS will discuss categorical effluent standards as they pertain to discharges of mixed wastewater. This discussion will include, at a minimum, a listing of applicable categorical standards as stated in the Code of Federal Regulations, the interaction between applicable guidelines for multiple industrial categories at one facility, and general locations for applying the applicable standards (multiple outfalls, combined outfall, internal outfall).

Changes in Scope: Include discussion of categorical effluent standards as they pertain to discharges of mixed wastewater to Section 3.3.4 of the scoping decision document.

120. **Comment: (WQL-15)** EIS should address impacts to Oxhide Lake.

Consideration/Response: Sections 3.3.1, 3.3.2, and 3.3.8 of the scoping decision document detail how the EIS will address impacts to Oxhide Lake and other surface water bodies.

Changes in Scope: No changes in scope.

121. **Comment: (WQL-16)** EIS should address impacts to Pickerel Creek.

Consideration/Response: Section 3.2.4, 3.3.1, and 3.3.8 of the decision document describe how the EIS will evaluate potential impacts to Pickerel Creek.

Changes in Scope: No changes in scope.

122. **Comment: (WQL-17)** The EIS should include constituents of water discharged from tailings basin seeps.

Consideration/Response: Section 3.3.4 of the scoping decision document indicates that the EIS will include a water chemistry balance for processing water and tailings basin seepage/discharges.

Changes in Scope: No changes in scope.

123. **Comment: (WQN-1)** Flow through (turn over rate) of Swan Lake.

Consideration/Response: The EIS will include an evaluation of nutrient loading changes to Swan Lake resulting from changes to inflow, tailings basin discharge/seepage and increased sewage flow through the Nashwauk sewage treatment plant through a nutrient budget analysis.

Changes in Scope: No changes in scope.

124. **Comment: (WQN-2)** Lake levels

Consideration/Response: Section 3.3.1 of the decision document indicates that the EIS will evaluate lake levels.

Changes in Scope: No changes in scope.

125. **Comment: (WQN-3)** Use of Canisteo Pit as water source for project.

Consideration/Response: The distance from the proposed project prohibits use of this pit.

Changes in Scope: No changes in scope.

126. **Comment: (WQN-4)** Need to evaluate impacts to Big McCarthy Lake.

Consideration/Response: A detailed project water balance and watershed yield will be conducted to help quantify impacts on stream flow and lake water levels throughout mining and after closure. However, very little potential impact is anticipated to Little McCarthy Lake, therefore the potential for impact to Big McCarthy Lake is even less.

Changes in Scope: No change in scope.

127. **Comment: (WQN-5)** Concern about dewatering impacts to water table/wells.

Consideration/Response: Section 3.3.2 states the EIS will evaluate potential impacts to nearby wells due to mine pit dewatering by examination of regional stratigraphy and proposed lake levels in nearby lakes.

Changes in Scope: Change third paragraph in Section 3.3.2 to read: Potential quality and quantity impacts to nearby wells due to mine pit dewatering will be evaluated in the EIS by examination of regional stratigraphy and proposed water levels in pits and nearby lakes.

128. **Comment: (WQN-6)** Concern about impact to Big Sucker Lake.

Consideration/Response: A detailed project water balance and watershed yield will be conducted to help quantify impacts on stream flow and lake water levels throughout mining and after closure. However, very little potential impact is anticipated to Little Sucker Lake which flows into Big Sucker Lake. Therefore the potential for impact to Big Sucker Lake is even less.

Changes in Scope: No change in scope.

129. **Comment: (WQN-7)** Biotic needs should be used as a basis for determining the threshold for augmentation.

Consideration/Response: Comment Noted.

Changes in Scope: Section 3.3.8 of the scoping decision document to indicate that the EIS will include a biological monitoring study. Aquatic invertebrates will be sampled in streams downstream from the mine pits and proposed tailings basin sites to provide background biological information. Sampling will be conducted at sites on O'Brien Creek, Sucker Brook, Snowball Creek, Oxhide Creek, Pickerel Creek, and Hay Creek. General water chemistry parameters (pH, temperature, conductivity, and dissolved oxygen) will also be collected during the sampling. Results of these studies will be compared to regional data and will be used in conjunction with the water balance and watershed yield to determine mitigation options.

130. **Comment: (WQN-8)** EIS should include a figure showing water routes and quantity diverted to Pits 1 and 2.

Consideration/Response: The EIS will define the routes for internal management of water and transfers between ponds and pits.

Changes in Scope: No changes in scope.

131. **Comment: (WQN-9)** Concern about water quantity impacts to Snowball Lake and augmentation needs.

Consideration/Response: The EIS will include a detailed water balance for the project including processing plant needs, mine pit dewatering, lake/stream augmentation and tailings basin seepage/discharge. Additional sources of water to supply the processing plant will be identified if the balance indicates a water deficit for the processing plant. The water balance will also consider wastewater discharges from the tailings basin to prevent build up of dissolved solids or other water quality concerns. This information will be used to model how affected watershed yield and lake water levels would change both during and after mining. Impacts to water bodies will be identified and mitigation/monitoring will be developed to minimize impacts. In addition, Section 3.2.4 of the scoping decision document indicates that mining in proximity to Snowball Lake has the potential to affect water levels and will be analyzed in the EIS along with other potential surface and groundwater impacts.

Changes in Scope: No changes in scope.

132. **Comment: (WQN-10)** "Significant impact" should be better defined as it relates to impacts to Little Sucker Lake and Little McCarthy Lake and the reduced watershed by the plant facilities.

Consideration/Response: The EIS will address all potential impacts (significant or not) to Little Sucker Lake and Little McCarthy Lake through the proposed water balance and watershed yield analyses.

Changes in Scope: No changes in scope.

133. **Comment: (WQN-11)** EIS should include quantity of water discharged from tailings basin seeps.

Consideration/Response: The EIS will include estimates of the quantity of water discharged from tailings basin seeps through the proposed water balance.

Changes in Scope: No changes in scope.

134. **Comment: (WQN-12)** EIS should quantify changes in flow of O'Brien Creek and other water bodies.

Consideration/Response: Sections 3.3.1, 3.3.2, and 3.3.8 of the scoping decision document detail how the EIS will address impacts to O'Brien Creek and other surface flows and water bodies.

Changes in Scope: No changes in scope.

135. **Comment: (WQN-13)** EIS should evaluate all creeks that drain to northern Swan Lake (Hay and Hart Creeks) as well as impact to Lake levels and Swan River Dam.

Consideration/Response: The EIS will evaluate creeks that drain into northern Swan Lake using a detailed project water balance and watershed yield will be conducted to help quantify impacts on stream flow and lake water levels throughout mining and after closure. Hay and Hart Creeks flow into the southern portion of Swan Lake and will not be impacted.

Changes in Scope: No changes in scope.