
40 C.F.R. § 52.1235

Regional haze.

(a) [Reserved]

(b)

(1) *NO_x emission limits.* (i) United States Steel Corporation, Keetac: An emission limit of 1.5 lbs NO_x/MMBtu, based on a 30-day rolling average, shall apply to the Grate Kiln pelletizing furnace (EU030), beginning 3 years from March 8, 2013. However, for any 30, or more, consecutive days when only natural gas is used a limit of 1.2 lbs NO_x/MMBtu, based on a 30-day rolling average, shall apply.

(ii) *Hibbing Taconite Company—(A) Hibbing Line 1.* (1) An emission limit of 1.2 lbs NO_x/MMBTU, based on a 30-day rolling average, shall apply to Hibbing Line 1 when burning natural gas. This emission limit will become enforceable 37 months after May 12, 2016 and only after EPA's confirmation or modification of the emission limit in accordance with the procedures set forth in paragraphs (b)(1)(ii)(A)(2) through (7) of this section.

(2) Compliance with this emission limit will be demonstrated with data collected by a continuous emissions monitoring system (CEMS) for NO_x. The owner or operator of Hibbing Line 1 must install a CEMS for NO_x and SO₂ within six months from May 12, 2016. The owner or operator must start collecting CEMS data and submit the data to EPA no later than 30 days from the end of each calendar quarter after that installation deadline. Any remaining data through the end of the 34th month from May 12, 2016, that does not fall within a calendar quarter, must be submitted to EPA no later than 30 days from the end of the 34th month. Although CEMS data must continue to be collected, it does not need to be submitted to EPA starting 34 months after May 12, 2016.

(3) No later than 24 months after May 12, 2016 the owner or operator must submit to EPA a report, including any final report(s) completed by the selected NO_x reduction technology supplier and furnace retrofit engineer, containing a detailed engineering analysis and modeling of the NO_x reduction control technology being installed on Hibbing Line 1. The NO_x reduction control technology must be designed to meet an emission limit of 1.2 lbs NO_x/MMBTU. This report must include a list of all process and control technology variables that can reasonably be expected to have an impact on NO_x emissions control technology performance, as well as a description of how these variables can be adjusted to reduce NO_x emissions to meet the NO_x design emission limit.

(4) The NO_x reduction control technology shall be installed on Hibbing Line 1 furnace no later than 26 months after May 12, 2016.

(5) Commencing on the earlier of: Six months from the installation of the NO_x reduction control technology; or 26 months from May 12, 2016, the owner or operator must provide to EPA the results from pellet quality analyses. The owner or operator shall provide the results from pellet quality analyses no later than 30 days

from the end of each calendar quarter up until 34 months after May 12, 2016. Any remaining results through the end of the 34th month from May 12, 2016, that do not fall within a calendar quarter, must be submitted to EPA no later than 30 days from the end of the 34th month. The pellet quality analyses shall include results for the following factors: Compression, reducibility, before tumble, after tumble, low temperature disintegration, and swelling. For each of the pellet quality analysis factors, the owner or operator must explain the pellet quality analysis factor, as well as the defined acceptable range for each factor using the applicable product quality standards based upon customers' pellet specifications that are contained in Hibbing's ISO 9001 quality management system. The owner or operator shall provide pellet quality analysis testing results that state the date and time of the analysis and, in order to define the time period when pellets were produced outside of the defined acceptable range for the pellet quality factors listed, provide copies of the production logs that document the starting and ending times for such periods. The owner or operator shall provide an explanation of causes for pellet samples that fail to meet the acceptable range for any pellet quality analysis factor. Pellet quality information and data may be submitted to EPA as Confidential Business Information.

(6) No later than 34 months after May 12, 2016, the owner or operator may submit to EPA a report to either confirm or modify the NO_x limits for Hibbing Line 1 furnace within the upper and lower bounds described below. EPA will review the report and either confirm or modify the NO_x limits. If the CEMS data collected during operating periods between months 26 and 34 that both meet pellet quality specifications and proper furnace/burner operation is normally distributed, the limit adjustment determination shall be based on the appropriate (depending upon whether data are statistically independent or dependent) 95% upper predictive limit (UPL) equations in paragraph (f) of this section. If the CEMS data collected during operating periods between months 26 and 34 that both meet pellet quality specifications and proper furnace/burner operation are not normally distributed, the limit adjustment determination shall be based on the non-parametric equation provided in paragraph (f) of this section. The data set for the determination shall exclude periods when pellet quality did not fall within the defined acceptable ranges of the pellet quality factors identified pursuant to paragraph (b)(1)(ii)(E) of this section and for any subsequent period when production has been reduced in response to pellet quality concerns consistent with Hibbing's ISO 9001 operating standards. Any excluded period will commence at the time documented on the production log demonstrating that pellet quality did not fall within the defined acceptable range and shall end when pellet quality within the defined acceptable range has been re-established at planned production levels, which will be presumed to be the level that existed immediately prior to the reduction in production due to pellet quality concerns. EPA may also exclude data where operations are inconsistent with the reported design parameters of the NO_x reduction control technology installed.

(7) EPA will take final agency action by publishing its final confirmation or modification of the NO_x limit in the Federal Register no later than 37 months after May 12, 2016. The confirmed or modified NO_x limit for Hibbing Line 1 when burning only natural gas may be no lower than 1.2 lbs NO_x/MMBTU, based on a 30-day rolling average, and may not exceed 1.8 lbs NO_x/MMBTU, based on a 30-day rolling average.

(B) *Hibbing Line 2.* (1) An emission limit of 1.2 lbs NO_x/MMBTU, based on a 30-day rolling average, shall apply to Hibbing Line 2 when burning natural gas. This emission limit will become enforceable 55 months after May 12, 2016 and only after EPA's confirmation or modification of the emission limit in accordance with the procedures set forth in paragraphs (b)(1)(ii)(B)(2) through (7) of this section.

(2) Compliance with this emission limit will be demonstrated with data collected by a continuous emissions monitoring system (CEMS) for NO_x. The owner or operator of Hibbing Line 2 must install a CEMS for NO_x and SO₂ within six months from May 12, 2016. The owner or operator must start collecting CEMS data and submit the

data to EPA no later than 30 days from the end of each calendar quarter after that installation deadline. Any remaining data through the end of the 52nd month from May 12, 2016, that does not fall within a calendar quarter, must be submitted to EPA no later than 30 days from the end of the 52nd month. Although CEMS data must continue to be collected, it does not need to be submitted to EPA starting 52 months after May 12, 2016.

(3) No later than 42 months after May 12, 2016 the owner or operator must submit to EPA a report, including any final report(s) completed by the selected NO_x reduction technology supplier and furnace retrofit engineer, containing a detailed engineering analysis and modeling of the NO_x reduction control technology being installed on Hibbing Line 2. The NO_x reduction control technology must be designed to meet an emission limit of 1.2 lbs NO_x/MMBTU. This report must include a list of all process and control technology variables that can reasonably be expected to have an impact on NO_x emissions control technology performance, as well as a description of how these variables can be adjusted to reduce NO_x emissions to meet the NO_x design emission limit.

(4) The NO_x reduction control technology shall be installed on Hibbing Line 2 furnace no later than 44 months after May 12, 2016.

(5) Commencing on the earlier of: Six months from the installation of the NO_x reduction control technology; or 44 months from May 12, 2016, the owner or operator must provide to EPA the results from pellet quality analyses. The owner or operator shall provide the results from pellet quality analyses no later than 30 days from the end of each calendar quarter up until 52 months after May 12, 2016. Any remaining results through the end of the 52nd month from May 12, 2016, that do not fall within a calendar quarter, must be submitted to EPA no later than 30 days from the end of the 52nd month. The pellet quality analyses shall include results for the following factors: Compression, reducibility, before tumble, after tumble, low temperature disintegration, and swelling. For each of the pellet quality analysis factors, the owner or operator must explain the pellet quality analysis factor, as well as the defined acceptable range for each factor using the applicable product quality standards based upon customers' pellet specifications that are contained in Hibbing's ISO 9001 quality management system. The owner or operator shall provide pellet quality analysis testing results that state the date and time of the analysis and, in order to define the time period when pellets were produced outside of the defined acceptable range for the pellet quality factors listed, provide copies of the production logs that document the starting and ending times for such periods. The owner or operator shall provide an explanation of causes for pellet samples that fail to meet the acceptable range for any pellet quality analysis factor. Pellet quality information and data may be submitted to EPA as Confidential Business Information.

(6) No later than 52 months after May 12, 2016, the owner or operator may submit to EPA a report to either confirm or modify the NO_x limits for Hibbing Line 2 furnace within the upper and lower bounds described below. EPA will review the report and either confirm or modify the NO_x limits. If the CEMS data collected during operating periods between months 44 and 52 that both meet pellet quality specifications and proper furnace/burner operation is normally distributed, the limit adjustment determination shall be based on the appropriate (depending upon whether data are statistically independent or dependent) 95% upper predictive limit (UPL) equations in paragraph (f) of this section. If the CEMS data collected during operating periods between months 44 and 52 that both meet pellet quality specifications and proper furnace/burner operation are not normally distributed, the limit adjustment determination shall be based on the non-parametric equation provided in paragraph (f) of this section. The data set for the determination shall exclude periods when pellet quality did not fall within the defined acceptable ranges of the pellet quality factors identified pursuant to paragraph (b)(1)(ii)(E) of this section and for any subsequent period when production has been reduced in response to pellet quality concerns consistent with Hibbing's ISO 9001 operating standards. Any excluded period will commence at the time documented on the production log demonstrating that pellet quality did not fall

within the defined acceptable range and shall end when pellet quality within the defined acceptable range has been re-established at planned production levels, which will be presumed to be the level that existed immediately prior to the reduction in production due to pellet quality concerns. EPA may also exclude data where operations are inconsistent with the reported design parameters of the NO_x reduction control technology installed.

(7) EPA will take final agency action by publishing its final confirmation or modification of the NO_x limit in the Federal Register no later than 55 months after May 12, 2016. The confirmed or modified NO_x limit for Hibbing Line 2 when burning only natural gas may be no lower than 1.2 lbs NO_x/MMBTU, based on a 30-day rolling average, and may not exceed 1.8 lbs NO_x/MMBTU, based on a 30-day rolling average.

(C) *Hibbing Line 3.* (1) An emission limit of 1.2 lbs NO_x/MMBTU, based on a 30-day rolling average, shall apply to Hibbing Line 3 when burning natural gas. This emission limit will become enforceable 60 months after May 12, 2016 and only after EPA's confirmation or modification of the emission limit in accordance with the procedures set forth in paragraphs (b)(1)(ii)(C)(2) through (7) of this section.

(2) Compliance with this emission limit will be demonstrated with data collected by a continuous emissions monitoring system (CEMS) for NO_x. The owner or operator of Hibbing Line 3 must install a CEMS for NO_x and SO₂ within six months from May 12, 2016. The owner or operator must start collecting CEMS data and submit the data to EPA no later than 30 days from the end of each calendar quarter after that installation deadline. Any remaining data through the end of the 57th month from May 12, 2016, that does not fall within a calendar quarter, must be submitted to EPA no later than 30 days from the end of the 57th month. Although CEMS data must continue to be collected, it does not need to be submitted to EPA starting 57 months after May 12, 2016.

(3) No later than 48 months after May 12, 2016 the owner or operator must submit to EPA a report, including any final report(s) completed by the selected NO_x reduction technology supplier and furnace retrofit engineer, containing a detailed engineering analysis and modeling of the NO_x reduction control technology being installed on Hibbing Line 3. The NO_x reduction control technology must be designed to meet an emission limit of 1.2 lbs NO_x/MMBTU. This report must include a list of all process and control technology variables that can reasonably be expected to have an impact on NO_x emissions control technology performance, as well as a description of how these variables can be adjusted to reduce NO_x emissions to meet the NO_x design emission limit.

(4) The NO_x reduction control technology shall be installed on Hibbing Line 3 furnace no later than 50 months after May 12, 2016.

(5) Commencing on the earlier of: Six months from the installation of the NO_x reduction control technology; or 50 months from May 12, 2016, the owner or operator must provide to EPA the results from pellet quality analyses. The owner or operator shall provide the results from pellet quality analyses no later than 30 days from the end of each calendar quarter up until 57 months after May 12, 2016. Any remaining results through the end of the 57th month from May 12, 2016, that do not fall within a calendar quarter, must be submitted to EPA no later than 30 days from the end of the 57th month. The pellet quality analyses shall include results for the following factors: Compression, reducibility, before tumble, after tumble, low temperature disintegration, and swelling. For each of the pellet quality analysis factors, the owner or operator must explain the pellet quality analysis factor, as well as the defined acceptable range for each factor using the applicable product quality standards based upon customers' pellet specifications that are contained in Hibbing's ISO 9001 quality management system. The owner or operator shall provide pellet quality analysis testing results that state the date and time of the analysis and, in order to define the time period when pellets were produced outside of the defined acceptable

range for the pellet quality factors listed, provide copies of the production logs that document the starting and ending times for such periods. The owner or operator shall provide an explanation of causes for pellet samples that fail to meet the acceptable range for any pellet quality analysis factor. Pellet quality information and data may be submitted to EPA as Confidential Business Information.

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