technology EPA chose (brominated PAC) was not effective in removing more mercury and thus attaining the emissions standard.[14]

Young Station Unit	Average Hourly Hg Emissions Value Achieved at Full Load (Sorbent Trap) Brominated PAC	Average Hourly Hg Emissions Value Achieved at Full Load (Sorbent Trap) Non-Brominated PAC
Unit 1	2.57 lb/TBtu	2.17 lb/TBtu

Minnkota then added more PAC than Unit 1's system is currently capable of injecting, by renting portable equipment. Those testing results show that even injecting more PAC will not achieve the new mercury limit. Minnkota presented a plotted curve that confirms the leveling off effect, such that increasing the amount of sorbent results in diminishing improvement in mercury control. The projected curve shows this leveling off takes place somewhere less than 80% capture. The plotted trend line, based on the test values, is far below EPA's conclusion that injection of brominated PAC at the rate of 3.0 lb/MMacf will result in a 90% removal rate, which was EPA's assumption in the MATS RTR. Accordingly, Minnkota's findings further support the conclusion that a feasible control strategy has not been identified for lignite units on a long-term basis, including the Coyote Station unit, to achieve the new mercury limitation.

Coyote Station has had some short-term success (on the order of one-week) using PAC to reach mercury emissions levels in the range of the new mercury limit. However, the new mercury limit must be met on a consistent and continuous 30-day basis by the July 6, 2027 compliance date. While these short-term results are helpful, longer-term testing does not currently exist to demonstrate that the new standard is achievable at Coyote Station on a continuous go-forward basis, especially given many factors that affect a lignite EGU such as load fluctuations, seasonal changes, and lignite mercury content.

In addition, Otter Tail demonstrated in its comments that the sorbent injection rate "is not the only factor affecting the Hg emission rate from an EGU"—other operating conditions impact the mercury removal efficiency and limit the emissions control technology.[15] For example, EPA overlooked the key issue of variability and the substantial differences between lignite coal and subbituminous coal in setting the new mercury standard.[16] Namely, lignite contains much higher mercury inlet values than other types of coal.[17] North Dakota lignite, in particular, has substantial mercury content variability, as well, which makes mercury control difficult.[18] At a mine-mouth site, like Coyote Station, the quality of the lignite and mercury content can vary from day-to-day. This makes assuring compliance difficult and highlights the importance of compliance margins to take variability into account.

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[14] Sargent & Lundy, *Mercury Testing Results for the MATS Residual Risk and Technology Review*, at 3-5 (May 22, 2024), Attachment A ("At the current injection capabilities of the existing system (i.e. requiring minimal modifications/retrofit of the existing equipment), BPAC cannot be applied to reduce Hg emissions to 1.2 lb/TBtu.").
[15] Otter Tail Comments at 6.
[16] *See id.* at 2-5.
[17] *See id.* at 7.
[18] *See id.* at 2, 6.