which is consistent with historic ESP designs where transformer-rectifier (T/R) sets were typically selected to provide lower current density at the inlet sections, where the dust concentration will tend to suppress the corona current, and to provide higher current density at the outlet sections, where there is a greater percentage of fine particles. In comparison, the Unit 1 ESP design does not follow this approach, with all fields' specific corona power = 493 W/1000 acfm and is currently achieving significantly lower PM emissions than Unit 2. The single Unit 1 WFGD vessel has four (4) slurry recycle pumps (SRPs). Each of the two (2) WFGD vessels on Unit 2 have five (5) SRPs.

Furthermore, manual cleaning of the boiler on Unit 1 is also able to include air preheater (APH) cleaning, whereas the large hoppers below the Unit 2 APH prevent APH washes from being completed during short-term boiler cleaning outages. The Unit 1 offline cleaning occurs on average every 110-115 days and requires the unit to be offline typically for three (3) days. The Unit 2 offline cleaning (only including APH tube rodding) occurs on average every 85-90 days and requires the unit to be offline typically for four (4) days.

1.4. CURRENT BASELINE EMISSIONS

Minnkota provided the past five (5) years of emissions to establish baseline emissions used for this evaluation. The baseline emissions were developed using data submitted by Minnkota to the EPA between January 01, 2018 through December 31, 2022 as part of emissions reporting requirements. For PM emissions, a 30-boiler operating day rolling average was selected as the baseline PM emission calculation methodology to be in-line with the permit reporting requirements. For Hg emissions, the maximum 30-boiler operating day experienced during the evaluation period was selected as the baseline Hg emission.

Table 1-1 — Baseline Unit 2 PM & Hg Emissions

Parameter	Units	Unit 2
PM Emissions	lb/MMBtu	0.015
Hg Emissions	lb/TBtu	3.90