

In order to analyze the data received from the TCEQ, certain outliers were removed due to inconsistency with existing data. The data set was graphed on a HP vs ACF plot and fit with a trendline to determine consistency with GCA data points; the average slope found by the GCA was 0.099 for use as a reference. The baseline slope of the TCEQ data is 3.1619, which is more than 30 times steeper than the GCA slope. This is due to the majority of ACF values reported for "larger" HP machines falling in the >1000ACF range, where the "smaller" HP machines generally fell below 1000ACF.

By removing the outliers which fall above 1000ACF, the slope is reduced drastically from 3.1619 to 0.132. The data was further refined by excluding data points with values greater than 500ACF, resulting in a slope of 0.1016, which follows closely with the GCA calculated slope. Additionally, the machines below 200 HP were removed and the slope became 0.1048.

The final slope of 0.1048 is within the range of slopes that the GCA data provided, thus the GCA model will be able to correctly predict ACF volumes of machines in this range that also fall on the trendline, however, the y-intercept of the TCEQ data falls much higher than that of the GCA data, verifying that the TCEQ data is more conservative than that of the GCA. This will need to be taken into account when using the GCA model to verify the TCEQ data due to the offset of roughly 80ACF.