Sonoma Technology, Inc.
Environmental Science and Innovative Solutions

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Committee on Zoning, Landmark, and Building Standards
City Hall, Room 304
121 North LaSalle Street
Chicago, IL 60602

Testimony of Lyle Chinkin, President of Sonoma Technology, Inc.

Thank you for the opportunity to speak at this hearing. My name is Lyle Chinkin, and I am the President of Sonoma Technology, Inc., an environmental consulting company in the San Francisco Bay Area. STI specializes in air quality and meteorological research. Most of my work is performed for government agencies such as the United States Environmental Protection Agency, the United States Forest Service, and state and local air quality management agencies. For example, STI operates EPA's AirNow system, which provides the American public with web-based real-time air quality data and educational materials about the quality of the air they breathe. I have personally served as an expert for the U.S. Department of Justice, on behalf of the U.S. EPA, in numerous environmental Clean Air Act enforcement actions. I have also served as a U.S. EPA-invited peer reviewer of the EPA particulate matter National Ambient Air Quality Standards Criteria Document, and as an expert panel member for the review of the Valdez, Alaska, Air Health Study.

I have been asked by KCBX Terminals Company to help evaluate the impact of KCBX operations on air quality in the surrounding community. Over the past year, I have visited the KCBX Terminals and the surrounding neighborhoods on numerous occasions, helped to design KCBX's PM_{10} air monitoring array, reviewed PM_{10} monitoring data that has been collected on-site, and performed dispersion modeling analyses for the facility and adjacent areas. Today, I would like to briefly share with you the results of my research.

Foremost, the conclusions reached by the City's contractor CDM Smith are incorrect and unsupported. All of the air monitoring data and air modeling conducted to date show that emissions from the KCBX Terminals are within applicable health and regulatory standards and do not result in violations of those standards in the surrounding community. If I may, I would like to provide you a brief explanation of my findings. In reaching its conclusions, CDM Smith conducted no air quality monitoring or modeling of its own, and ignored that regional background concentrations of up to 81 $\mu g/m^3$ measured upwind at the nearby Illinois EPA air monitor located at the George Washington High School. They simply theorized what they think

might be the case without any data to support their opinion. In contrast our opinions are based on real measurements and state-of-the science modeling.

First, for almost one year, KCBX has been operating 9 Federal Equivalent Method PM_{10} monitors: 4 at the North Terminal and 5 at the South Terminal. KCBX has more PM10 monitors on its property than the entire rest of Illinois has in the state and more than many states have in total. In addition, meteorological measurements (including wind speed and wind direction) are being collected at both the North and South Terminals. The locations of all these monitors as well as the methods used to take measurements were approved by the U.S. EPA. I understand one of the bases for the city ordinance is perceived flaws or gaps in this air monitoring program. I could not disagree more; frankly, in my 35-year career, I have never seen an industrial facility with a more robust PM10 monitoring system.

The monitor data at KCBX over the past year establish there is no fugitive dust problem in the surrounding area caused by KCBX's operations. At the KCBX Terminals, we have data from 9 monitors that covers a period of nearly one year (monitoring began in February 2014). My analysis of this data indicates that the on-site PM_{10} concentrations are well within typical ranges for an urban industrial area, and that the measured values are consistent with off-site PM_{10} levels that would meet standards designed to protect public health. For example, for roughly nine of every ten days, the levels measured on the KCBX property is less than half of the standard set for neighborhood ambient air quality levels. All of the results are posted regularly on a public website and are being submitted in written comments for the committee's consideration today.

On the rare days when elevated PM_{10} concentrations have been observed on-site, conditions have followed a consistent pattern showing that the elevated readings are greatly impacted by offsite (non-KCBX) sources. In other words, on the days where the monitors show elevated levels, much of that is not from KCBX but from other off-site sources. This is clear because the readings for the monitors coming onto the property are almost as high as the readings for the monitors leaving the property (in the direction that the wind is blowing on those days). For example, PM_{10} levels reached 155 $\mu g/m^3$ on April 12 and 156 $\mu g/m^3$ on May 8. On each of these days, winds were consistently from the south-southwest during daylight hours, with hourly average wind speeds reaching 15 to 20 mph. Due to these high winds from the south, the KCBX monitors were impacted by emissions from nearby off-site sources as shown by high PM_{10} concentrations at the upwind monitors which capture the effect of dust coming onto KCBX's property from off-site sources. CDM Smith suggested that the monitor at GWHS is a good indicator of background PM_{10} concentrations. On the days when the KCBX monitors had elevated readings, the GWHS monitor also showed elevated levels of PM_{10}. The GWHS monitor was well-upwind of the Terminals on these days. This shows that KCBX did not cause the elevated readings. When talking about sources in this area other than KCBX, I understand that U.S. EPA and IEPA have issued notices of violation to several other companies in the area, but I

do not believe that those other companies have any water cannons for dust suppression, and none of them have any EPA PM_{10} monitors.

I also conducted air dispersion modeling with the EPA-approved AERMOD model. This is the gold standard for air dispersion modeling and is one of my areas of expertise. The modeling results are being submitted in written comments and demonstrate that KCBX's PM_{10} levels, even at the highest points of the year, are less than half of what is safe for ambient air levels in the neighborhood. I had shared the results of the air modeling I performed with representatives of the City of Chicago, the State of Illinois and the U.S. EPA.

Based on these findings, I can confidently say that PM_{10} concentrations produced by operations at the KCBX Terminals are within applicable health and regulatory standards and do not cause violations of those standards in the surrounding community.