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January 13, 2015

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

**Testimony of David MacIntosh, Chief Science Officer,
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Good morning Mr. Chairman Solis and Committee Members. Thank you for allowing me to speak here.

My name is David MacIntosh. I am Chief Science Officer at Environmental Health & Engineering, Inc., a technical consulting firm based in Boston that specializes in addressing whether environmental contaminants could present concerns for human health, public welfare and the environment. I have a doctorate in environmental health from the Harvard School of Public Health and am currently on the faculty there where I teach graduate students and contribute to their research. I have worked on projects for the U.S. Environmental Protection Agency, U.S. Department of Labor, U.S. Consumer Product Safety Commission, U.S. Department of Transportation, State of North Carolina, and numerous cities, towns, and school districts. I have more than 20-years' experience studying, teaching, and helping governments and the public address concerns about environmental health.

I was asked to determine if there was any evidence of petcoke or coal in the neighborhood surrounding KCBX's facilities in SE Chicago. My conclusion is there is no impact from KCBX on the soil or surfaces in either South Deering or East Side. In simple terms, the dirt on the ground and on buildings, park benches, and other surfaces in these neighborhoods has the same chemicals and compounds in the same ratios as dirt from anywhere else in Chicago.

I have gathered information, analyzed data, and visited the facilities and neighborhoods over the last 15 months. In total, I considered thousands of data points and observations from the KCBX sites and neighborhoods in reaching my conclusion, including the recent reports issued by the City of Chicago Department of Public Health (CDPH). I will address their comments in a moment, but first I would like to tell you about my investigation into this matter.

I collected soil and surface wipe samples from more than 50 locations in the South Deering and East Side neighborhoods and analyzed those samples for chemical indicators of petcoke and coal. I also collected soil and surface wipes from 20 similar locations in SE Chicago neighborhoods not located near KCBX. In both areas, the samples were obtained from exposed soil, benches, bleachers, shelters, and buildings along rights of way and in parks. I found no difference in the levels of the chemical indicators between the two areas and no similarity between the community samples and petcoke or coal.

In addition, I analyzed data from surface dust samples in the neighborhood near KCBX collected by the USEPA. The chemical levels in those samples were also typical of other areas in Chicago and indicate that petcoke and coal are not present in the neighborhood.

I also analyzed filters from forced air ventilation systems that the Southeast Environmental Task Force obtained from homes near the KCBX terminals. I found no evidence of petcoke or coal in those filters, but rather that the dust on the filters was highly consistent with typical soil and air in Chicago. The USEPA conducted its own analysis of these filters and reached the same conclusion.

The reports of my investigation, the data I have considered, and my conclusions have been presented to and shared with representatives of the City of Chicago, the State of Illinois and the USEPA on multiple occasions since last January.

In addition to my own data, I also reviewed the technical memorandum on this matter recently released by the CDPH including two reports by its consultant CDM Smith. In one of its reports, CDM Smith stated that it identified material in sidewalk dust near KCBX South that is consistent with petcoke or coal. I wish to communicate four points about that report. First, I analyzed their data and found that the material identified is statistically significantly different from the KCBX petcoke reported by CDM Smith. Second, CDM Smith's conclusion is based on only 3 dust samples; in comparison I collected over 150 samples in total and considered all other relevant data. Third, CDM Smith did not collect dust samples from a control location, which means that its study cannot determine whether or not its sample is simply typical of Chicago in general rather than a KCBX-related impact. Fourth, CDM Smith did not attempt to differentiate the material identified from common petroleum-based materials such as asphalt. Data from locations not near KCBX, such as the control areas that I sampled, would address this information gap.

In another of its reports, CDM Smith concluded that potential accumulation of petcoke-related chemicals from the KCBX terminals would be small in comparison to background concentrations of these substances. I agree with its conclusion. Further, I determined that CDM Smith's calculations of how quickly petcoke-related chemicals would settle to soil is very low in comparison to background settling rates in Chicago. What this means is that all of the chemicals

that could come from coal and petcoke are already in soil in the neighborhood and levels of these chemicals are unlikely to be any different simply because KCBX is in the neighborhood.

I am aware that these reports state that my soil sampling methodology was not sensitive enough. CDM Smith is wrong about this. Because I took samples both near the facility and farther away in areas that could not be impacted by the facility, my testing was sensitive enough to detect any meaningful impacts above background levels in Chicago. Also, CDM Smith does not dispute the results of my wipe samples or the furnace filter sampling, which show no evidence of pet coke or coal.

In conclusion, based on my observations and evaluation of the information available at this time, I find that there is no evidence of petcoke or coal from KCBX in the East Side and South Deering neighborhoods and no evidence that KCBX's presence here has caused any impact on soils or surfaces.