Response to Comments Related to the Chanute Air Monitoring Plan

1. Will collection of odor samples include an immediate investigation of the local area (about 100 yards) for a likely source? If not, why not?

   Response: Yes, the air monitoring plan has been revised to incorporate an immediate investigation of the local area during odor complaint responses to attempt to identify the source.

2. How will the background days for SUMMA canister collection be determined? Who will decide there is no odor?

   Response: Background samples will be collected prior to initiation of the odor monitoring campaign by staff from the KDHE Southeast District office. They will use their best professional judgment to discern whether odors are present prior to collection of samples.

3. EPA states that seven canisters are sufficient to supply the statistical basis for the source of an odor. Will EPA specifically reference in the plan the statistical methodology and support for this statement?

   Response: The odor sampling plan is a "screening plan." In other words, it is designed to merely determine the presence (or not) of chemicals which could be of concern. The study, by itself, is not designed to compare to health benchmarks. Under the construct of a screening study, the determination of the number of samples to be collected is largely based on the availability of resources and past experience regarding what level of effort has been successful in scoping out environmental odor issues. If the presence of chemicals which could pose a health threat are confirmed in "grab" samples taken by SUMMA canisters, a more refined sampling analysis may be proposed.

4. Why is EPA using average volatile organic compound (VOC) concentration in background samples to make conclusions about odor? Has the odor been characterized somehow as one indicative of VOCs? How does EPA know that the odor is caused by VOC compounds? EPA should use the two background sample maximum results in comparison to measurements taken when odors are present, and not the average results as indicated in the plan. The maximum readings are yielding the qualitative no odor reading, so there is nothing conservative about using average readings. Further, the background readings should be taken at sites where odor readings are taken, but at a time when odor is not reported by the individual reporting the event, and those sites should be as far from each other as is practical.

   Response: Averaging the VOC concentration data in the background samples is proposed to account for the high degree of variability that is present in the atmosphere. Odors have not been characterized as indicative of VOCs and EPA does not know that the odor is caused by VOC compounds. The sampling plan states "Because the odor complaints described in Chanute have been irregular and are of relatively short duration, the most appropriate sampling approach would be one that captures a broad range of compounds in a short amount of time with high sensitivity. The best sampling technology we have available to us that meets this objective is the evacuated SUMMA canister. The air sample captured in the canister is analyzed in a laboratory by EPA Method TO-15 for Volatile Organic Compounds (VOCs) and the results used to screen for potential odor-causing chemicals."

5. Why does EPA believe that readings not measured in background samples are the basis for the odors?

   Response: EPA believes if odor-causing VOCs are present at the time of sampling, the concentration of those VOCs will be substantially higher than those measured in the background samples.

6. How does EPA define “populated area of the city”?

   Response: We have not provided a formal definition for this term. The intent of the screening study is to monitor near residential areas where the general population spends the majority of its time during a 24-hour period. Priority will be given to potential monitor sites located near residential areas for the purposes of PM monitoring under this study.

7. What is the basis for EPA’s averaging periods for the various pollutants? Why is EPA’s daily averaging of the PM10 data compared with the KDHE data to determine a gradient? Why is EPA using an hourly average of PM2.5 data to determine sources in the above comparison?

   Response: EPA is collecting PM10 monitoring data at half-mile intervals to determine if the entire monitored area is similarly affected by PM10. Hourly averages of PM10 and PM2.5 data will be assessed for their relationship with meteorological data in order to infer the direction of potential sources of particulate matter that may be impacting the area.

8. Will EPA and KDHE be measuring the pollen count each day in combination with the PM and weather data?

   Response: While pollen counts may be informative regarding individual air exposures and related respiratory symptoms for specific days, such monitoring is outside the objective and scope of this screening study. As stated, the objective is to identify whether or not particulate matter concentration gradients exist in Chanute, north of the existing ambient air monitor which is located at the KDHE Southeast District Office.

   This PM data from the screening study will be informative to KDHE and EPA regarding future KDHE plans to conduct long-term monitoring for PM10 and PM2.5 in the Chanute area. (See Kansas 5-Year Monitoring Network Assessment at www.kdheks.gov/bar/air-monitor/2010_Kansas_5-year_Monitoring_Network_Assessment.pdf)

   The data from this screening study will not be used for direct comparison to health-based standards and, as acknowledged previously, is not appropriate for such comparisons. It is this long-term monitoring outlined in the “5-Year Monitoring Network Assessment” that will provide information to the community regarding their ongoing exposures to particulate matter. This long-term monitoring could also allow for future analyses and evaluations of the association between PM concentrations and health concerns, such as asthma incidents, should EPA or KDHE deem such analyses necessary.

   EPA and KDHE intend to make use of local weather data from the Martin Johnson Airport in Chanute and other local sites, if available, to support the data analysis for this study.