Questions and EPA Responses Received From Greenaction/Center on Race, Poverty, and the Environment Regarding CWM PCB Congener Study Report

EPA has heard the concerns and issues raised by Greenaction and Center on Race, Poverty and the Environment (CRPE) regarding Chemical Waste Management (CWM)'s PCB Congener Report. And I want to assure you that we take these concerns and issues very seriously. In the past 10-11 months, EPA has met with Greenaction and CRPE three times, both in Kettleman City (12/16/10) and in our San Francisco office (4/29/10 and 8/5/2010) to discuss and respond to your issues. It is my hope that for this next time, by having attempted to address your concerns in writing below, that we can more effectively relay our reasoning and technical rationale for addressing your concerns. I personally believe that our Congener Study was a comprehensive effort, and the data can be relied upon without reservation.

EPA rigorously oversaw all aspects of CWM's work, from the scope planning, sampling approach and methodology, field data collection and analysis, and report writing. We have worked with deliberate focus to ensure that the Study and risk conclusions are based on sound science and meet all of EPA's data quality objectives. We have also thoroughly reviewed the field and sampling procedures to evaluate if data gaps or other technical flaws exist. We reviewed several pre-drafts of the document and provided numerous comments to CWM and are satisfied that CWM has addressed EPA's concerns. The Study, which includes the Human Health and Ecological Risk Assessment documents will be available on our Kettleman web site when translated.

We have summarized below our understanding of the key concerns raised by Greenaction and CRPE in our past meetings and in emails, and are providing EPA's responses in writing to hopefully better message the confidence we have about the Study and its conclusions. If we have misunderstood the concerns or issues and/or if you would like to meet again to discuss further, we are certainly available to do so.

1. The Congener Study is incomplete because the presence of rattlesnakes prevented EPA from collecting a full set of soil samples around the landfill (raised during EPA meeting on December 16, 2009 and in email dated 10/13/2010).

EPA firmly believes that the PCB Congener Study includes a full set of acceptable soil, air, and vegetation sampling data that can be used to support risk decisions regarding human health and the environment. EPA required that Chemical Waste Management (CWM) collect soil samples around the full perimeter of the facility and in a drainage swale south of the landfill and analyze the samples for PCB Congeners. CWM collected 720 soils samples and another 720 vegetative samples at all the required locations (as directed by EPA) around the facility including in the areas of noted rattlesnake activity.

We acknowledge that EPA did not collect split soil samples in two areas because of health and safety concerns for our employees associated with rattlesnake activity on the day of our sampling event. However, CWM did. Because CWM's data collected in these areas met all of our quality assurance and quality control requirements, CWM's data is representative of conditions in those areas, and can reliably be used in the risk assessments.

As part of EPA's standard quality control & quality assurance oversight practices, EPA collected a limited number of split soil samples around the facility and had those samples analyzed at another Regional EPA laboratory. As a matter of standard practice by EPA in our oversight of field investigations, split sampling is done to assure that independent laboratories chosen by a facility meet the Agency's standards for quality and dependable data analysis. A facility's analytical quality controls and resultant data are evaluated relative to the quality controls and integrity of EPA's split sample results. The limited number of

split samples collected by the Agency is never intended to fully characterize concentrations of contaminants at a site.

2. Why did EPA approve a Multi-Increment (MIS) Sampling Strategy versus discrete soil samples? How does the MIS strategy ensure that an adequate number of soils samples were collected and that concentrations of PCBs aren't being homogenized or diluted (issue raised during EPA meeting on August 5, 2010).

EPA directed CWM to use a multi-increment sampling strategy (MIS) for both soil and vegetation samples. MIS is a newer methodology that EPA has recently begun using more widely. MIS is specifically designed to characterize contaminants over large areas such as those potentially impacted by broad based air emissions. MIS is a standardized sampling methodology that we have applied at other sites where the purpose of the study is similar to that intended at the Kettleman Hills Facility (KHF).

At KHF, MIS was used to substantially increase the number of samples (both soil and vegetation) to better support our evaluation of whether offsite soil and/or vegetation as been impacted by site operations. The field sampling and laboratory homogenization techniques unique to MIS substantially improve the representativeness of overall exposure conditions within a large area when compared to the same number of discrete (grab) samples within that same area. This homogenization allows for a broad and comprehensive look for PCB contaminants in large areas while reducing the chance that any individual PCB concentration (either a high concentration or a low concentration) would unduly bias the complete set of data.

If the conclusions of the risk assessment showed risks from soil, the vegetation, or the air exceeding the Agency's acceptable carcinogenic risk range, then, EPA would have required additional sampling to characterize the extent of potential impacts.

3. EPA's analytical split-sampling data for soil concentrations were higher than the CWM data and were not used in the study (raised during EPA meeting on December 16, 2010).

We acknowledge that in several instances EPA's split sample results were higher than CWM results. However, as part of EPA's standard quality control and quality assurance oversight practices, EPA subjected the CWM data to an unusually high level of scrutiny using standard data evaluation techniques. Based upon this extensive scrutiny, EPA concluded that the CWM soil data used to support the risk assessment calculations meet Agency standards for quality control. The data collected by CWM was analyzed by an independent off-site laboratory and were within data quality guidelines and representative of site conditions. *CWM did not use the Kettleman Facility onsite laboratory that EPA has expressed concerns about.* EPA's quality control and quality assurance review of the EPA Laboratory results indicated that EPA's results on this occasion were not reliable. Thus, because of the quality assurance issues associated with EPA's data, EPA instructed CWM to not use our data in the risk calculations.