USEPA AMCO Superfund Site CAG Meeting, June 14, 2010

EPA Attendees: Leana Rosetti
Rose Marie Caraway
Steve Calanog
Nick Vargas
Janet Magnuson
Lynne Suer

EPA Contractors: Kent Baugh/ITSI
Yash Nyzech/CDM
Frankie Burton/CH2M HILL
Marsha Pindergrass/Meeting Facilitator

CAG Members: Adan Navarro/Resident
Angie May/Resident
Brian Beveridge/Resident and representative of the West Oakland Environmental Indicators Project
Ellouise Parkinson/Resident
Frances Watson/Resident
Lisa Spearman/Resident
Tori Johnson/ Resident
John Schweizer/Technical Assistant
Kerri Atwood/ UC Berkeley Extension – Landscape Architect
Pam Evans/Alameda County Environmental Health

Purpose of Meeting

- Gain deeper understanding of indoor air data results, resulting actions and hear concerns
- Provide information regarding outstanding community questions about lead cleanup, particularly in regards to ownership/disclosure questions.

West Oakland Lead Assessment: Unanswered Questions

EPA Presentation

- EPA found elevated levels of lead in the South Prescott neighborhood.
- EPA decided to take immediate action to clean up the lead.
- EPA will move forward with bench tests to determine the best combination of remedies.
    - EPA will sample 12 yards.
    - EPA will perform a wide range of tests to look at all lead constituents in the soil.
    - EPA will test soil to verify that the chosen remedy is successful.
- Lead contamination in urban soil is a major issue that EPA traditionally solved with the “Dig and Haul” method.
    - Due to the rising costs of fuel, lack of landfill space, rising concerns for long term impacts and sustainability goals it makes more sense for EPA to look at more sustainable cleanup methods that involve the community as much as possible.
    - Less equipment intensive cleanup options will meet the desires of the community.
- **Legal questions:**
    - What will end up on your title, if anything?
        - EPA most likely will not require institutional controls such as deed restrictions.
        - EPA would work with each home owner to address concerns and avoid deed restrictions.

    - Each individual home owner will get a report for their home as well as a large report detailing all of the homes cleaned up in the neighborhood.
    - EPA cannot advise the residents on real estate specific questions, but it makes sense that the residents would have to disclose the fact that their yards have been shown to have high levels of lead.
    - It is up to the resident whether or not to place information about the lead cleanup on their title.
    - EPA suggests that people speak with a real estate specialist.

Community Comments

- The community wants to know what the incentives are for cleaning up your property outside of environmental/health benefits.
    - Need to ask a real estate expert for specifics, but residents will have reports to prove to potential buyers that their property was cleaned up.
    - One benefit is that the community will may have the chance to work with a volunteer landscape architect to assist in designing the resident's yards after the cleanup.

Independent Technical Advisor Comments from John Schweizer
(Refer to handout of slides for more information.)

- **Dig and Haul:**
    - **Positives:**
        - Removes the lead from the yards
        - Surest way to maintain property values
        - "Tried and True", no pilot testing necessary
        - Fastest method
    - **Negatives:**
        - Not sustainable, because of land fill capacity.
        - Moves the problem elsewhere
        - Adds diesel pollution from trucking
        - Disruptive
- **Soil Washing:**
    - **Positives:**
        - Removes the lead, not the soil; soil is recycled back to the yards.
        - Completely removes lead
    - **Negatives:**
        - High energy usage
        - Most disruptive to neighborhood
        - Diesel pollution from trucking and process plant operation
        - May sterilize or remove nutrients from soil
        - Pilot testing required
- **Capping**
    - **Positives:**
        - A variety of caps are possible.
        - Caps can enhance usability and value of a property.
        - Green caps are possible.
        - Quickly removes access to the lead by children.
        - Less disruptive than removal options.
        - No pilot testing required.
    - **Negatives:**
        - Lead is not removed or altered.
        - May not improve or maintain value as removal methods do.
        - Maintenance is required to keep long-term protection.
        - Not a permanent solution,
        - Disruption similar to construction project (patio installation).
- **Chemical (Phosphate) Treatment:** EPA's preferred clean-up method.

- **Positives:**
  - Sustainable.
  - Quickly detoxifies lead.
  - Less disruptive than removal options.
  - Trees could be protected and gardens restored.
  - Long term solution.
  - Can provide community employment.
- **Negatives:**
  - Disruptive due to mixing phosphate chemicals in soil.
  - Lead is not removed, just neutralized to a form that is less bioavailable.
  - Pilot testing required.
- EPA and TA will look into whether or not the chemical treatment might harden the soil.
- In the pilot studies, EPA is going to test this method and allow over several months to confirm that rain does not cause leaching of the treated soil.

- **Use of plants to extract lead (phytoremediation/phytoextraction)**
  - **Positives:**
    - Sustainable
    - A variety of species remove lead, so selection of one or more plants to fit the characteristics of each site may be possible.
    - Less disruptive than other methods.
    - Long term solution.
    - Can provide community employment.
  - **Negatives:**
    - Very slow; at least five years required to lower lead levels enough.
    - Lead is not completely removed.
    - Regular maintenance, including harvesting plants, is required.
    - Pilot testing required.

Community Comments

- If a child ingests soil that has been chemically treated?
  - Phosphate is not soluble, so it would pass through the child's system.
- What happens to plants in yards?
  - After the phosphate treatment the lead is not bio-available, or able to be absorbed by the plants.
- Is there any way someone could accidentally reverse the process?
  - There isn't any chemical activity that would typically be done in a residence that could reverse the process. A large spill of a very acidic chemical could reverse the process, but it is highly unlikely and a problem within itself.
- Could the other chemicals contaminate groundwater or soil?
  - The TA did not think so.

Indoor Air Sampling Data

Technical Advisor Comments

(Refer to TAs handout of slides for more information.)

[Results up until 2009 were evaluated—the results from the last 2010 sampling event, after ventilation systems were installed, were not included in this analysis]

- Of the 42 chemicals tested, 14 have at least one hit above screening levels.
- Of the 14 chemicals, 12 of these chemicals show up in at least one home above screening levels. Are they coming from soil gas?
- Of these 12 chemicals, 9 are clearly not coming from soil gas. They are below screening levels in soil gas and are **always** higher elsewhere. (They're coming from household items, outdoor air, pesticides, etc.) It is physically impossible for chemicals to be coming from soil gas if they are at lower levels in the soil gas and/or the crawl spaces than in the

homes. This is because chemicals always migrate from areas of higher concentration toward areas of lower concentration.

- Although some chemicals are above screening levels in some locations, screening levels are set near the level of detection, far below levels that are known to be health hazards.
- Four chemicals (Chloroform, Napthalene, Tetrachloroethene [PCE], and Trichloroethene [TCE]) are above screening levels in the soil gas, and could potentially cause concentrations above screening levels in the homes. However, Chloroform and Napthalene are always higher in the homes than in the crawl spaces, which means it is impossible for these chemicals to be coming from the soil gas. PCE is higher in the crawl space in one home, but lower than screening level in this one home. In homes where PCE is above screening level, it is lower in the crawl space, showing that soil gas is not the source of PCE in these homes. TCE is generally higher in the crawl spaces than in the homes, but is never above screening levels in any of the homes. The conclusion is that soil gas is not **yet** high enough to cause levels above screening levels in the homes. The question is, "Are any of the four chemicals increasing and could become a future problem?"
- Napthalene, PCE and TCE are all decreasing. However, Chloroform is increasing in the soil gas. This shows the importance of removing the source area as soon as possible.
- In the meantime, the ventillation systems installed by the EPA should act as a barrier and prevent chemicals in the soil gas from migrating into the homes, if any chemicals ever get high enough in the soil gas to cause a problem.

EPAs Comments

- Rose Marie does not agree with all of the TA's comments; EPA's take away from the data the TA discussed is that vapor intrusion was occurring and EPA has mitigated it with the ventilation systems installed in 2009.

(Refer to EPAs handouts of bar graphs showing air samples for more information.)

Note: The drawback of displaying indoor air data in bar graph format is the information is conveyed in a matter that oversimplifies it. Use the bar graph depictions in addition to the detailed summaries to understand the overall risk. All past handouts will be on the AMCO website.

- The "background" air data comes from Lewis Street, about five blocks from the South Prescott Neighborhood.
- **Page 1, Outdoor Air:** South Prescott Park's outdoor air levels are not that different from the background outdoor air levels.
- **Page 2, 1428 3rd Street:** The scale has been adjusted from the first graph.
    - **Note:** Vinyl chloride is considered hazardous at much smaller levels than any other constituents of concerns.
    - **Note:** Cancer risks are calculated for the most sensitive populations over the course of a lifetime (~70 years).
- EPA will continue making an effort to provide information in more visual formats in the future.

Community Comments

- What is a screening level?
    - What's known to be safe; very low levels of chemicals; like 1/10,000ths of a drop of a dropper and putting it in a box; trace levels. In the TAs opinion it is very protective.
- Will other groundwater plumes in the area recontaminate the area of the AMCO plume once it is cleaned up?
    - Not necessarily, because EPA would see new sources of contamination and would adjust their treatment accordingly.
    - It depends on the site, but it is possible for the levels to go back up if the source was not eliminated.

    - EPA will continue to monitor the groundwater to determine the effect of any potential cleanup on the groundwater. The purpose of monitoring is to ensure that recontamination of a site doesn't occur. Monitoring will also allow the project team to determine whether or not contamination from another source is entering the AMCO treatment area.TA comment: He looked at whether the values were increasing since 2009. One chemical's level was increasing over time. Chloroform is only above screening levels for soil gas. The best way to deal with this issue is to remove the source.
    - EPA is proceeding with the process to move closer to cleaning up the site. It was suggested to EPA that it may not be a good idea to start the public comment period for the Proposed Plan during the holidays in December. Starting it in January 2011 would avoid any complaints about trying to give the public less time to comment on the public documents.
- Why isn't chloroform on the bar graph handout?
    - Since chloroform does not exceed the air screening level it was not included in the bar graph handouts. That is the down side of the bar graph handout – it is too simplistic.
- Do the residents like the bar graph handouts?
    - Yes, they do! EPA should continue to create them!
- Take this as an opportunity to educate yourself in general. Especially since some of the causes of poor indoor air quality is due to chemicals used and brought into our homes, poor structure causing a lot of outdoor air to get indoor, etc. Also, some residents are looking into the benefit of indoor plants.
    - EPA has a lot of information about the benefit of indoor plants in homes near superfund sites and homes in urban areas where air quality is typically poor.

TASC/TAG Grant Update

- The TASC Grant came through and the workplan is available. John Schweizer is now working under the TASC contract as a Technical Advisor for the community.
- A TAG grant application is being worked on by Brian Beveridge and his non-profit. It should come through by sometime in August.

Planning for the Future: Reuse Assessment for the AMCO Chemical Superfund Site

- EPA handed out the draft report for the residents to review.
- EPA requested that the residents send and communicate their comments on the Reuse Document by/before the July 12 meeting.

Next Meeting

- AMCO Superfund Site CAG Meeting: July 12 6:30 – 8:30 PM at the Mandela Gateway Apartments Community Room located at 1400 7th Street, Oakland.
    - CAG meetings will occur the second Monday of every month through August.
    - **July 12, 2010 Agenda:**
        - West Oakland Lead Assessment Update
        - Resident's Comments on Reuse Document
        - Q&A with Real Estate Professional