Message

From: MacDonald, Alex@Waterboards [Alex.MacDonald@waterboards.ca.gov]
Sent: 12/17/2015 10:47:50 PM
To: Santiago-Ocasio, Carmen [Santiago-Ocasio.Carmen@epa.gov]
Subject: FW: Draft LUCs for C29
Attachments: removed.txt; Potential indoor Air Risk.pdf

Julie - here is some explanation of the figure.

Alex

From: MacDonald, Alex@Waterboards
Sent: Tuesday, December 15, 2015 3:56 PM
To: Ross, Steve@DTSC; Kwei, Orchid@DTSC; Jacobsen, Nathan@Waterboards; Selzer, Brooke@DTSC
Subject: RE: Draft LUCs for C29

Today I took a look at the groundwater VOC data, groundwater elevation data, carve-out areas and areas with existing LUCs for indoor vapor intrusion on those carve-out areas. Attached is a figure that shows:

1. Hatched area is the carve-out lands.
2. Yellow shaded areas are those carve-out areas that have LUCs based on potential indoor air issues from release of VOCs from groundwater to the vadose zone. These were adopted during the carve-out and PCD modification process. They were developed based on the TCE risk values at the time.
3. Red shaded areas those areas carve-out areas that I believe should be re-evaluated for LUCs for potential indoor air risk (VOCs from the groundwater). This is based on the 5 µg/L in groundwater line that Aerojet and the agencies have agreed to use as the demarcation line for potential indoor air risk from shallow groundwater with TCE (see Area 40). The areas in red have shallow groundwater (the deepest is around 80 feet, and either are over groundwater that has TCE at 5 µg/L or greater or downgradient from a plume that has significant concentrations (generally greater than 100 µg/L) The downgradient definition has some tweaks – the southwest red shaded area is not exactly downgradient, but a slight shift in groundwater flow could produce a more westerly component. The southeastern red shaded area is expanding the area of concern to the just past the 5 µg/L TCE line. (I believe the previous criteria was around 30 µg/L).

The boundaries of the shaded areas are not precise and I am only looking at additional evaluation at this time to ascertain whether are not LUCs are appropriate.

Alex

From: Ross, Steve@DTSC
Sent: Friday, December 11, 2015 10:56 AM
To: MacDonald, Alex@Waterboards; Kwei, Orchid@DTSC; Jacobsen, Nathan@Waterboards; Selzer, Brooke@DTSC
Subject: RE: Draft LUCs for C29

All,

I have checked with HERO regarding C29. In her November 20 response to me, Valerie concurs that the concentrations of chemicals as presented in soil and soil vapor are less than their respective risk based screening levels for human health. In his November 16 response to me, Ed indicated the concentrations of detections are inconsequential for ecological receptors. His e-mail is quite detailed and goes as follows:

"The Area C29 data contained in the e-mail copy you provided are from a limited sampling effort (1 soil sample, 2 soil vapor samples) from sixteen years ago. In comparison to present-day screening levels for ecological receptors, or to Aerojet's background threshold values (BTVs), the analytical results are essentially non-starters.

For five of the VOCs in soil vapor, the reported concentrations are less than current screening levels. There are no eco screening values for ethanol (detected at 130 ug/m^3, and with a human-health screening number in the millions of ug/m^3), and the detected concentration of toluene (500 ug/m^3) is only a bit above the upper-bound eco screening level of 420 ug/m^3. At sixteen-years old, the detected concentrations of VOCs can't be considered representative of current conditions, but relative to current screening concentrations, they are inconsequential for ecological receptors.

Detected concentrations of the inorganic constituents in soil are all at or below the ecological screening levels or the BTVs. It appears that the e-mail listed the wrong soil-type data for Area C29 and used an older test-statistic for the BTV, but that doesn't change any conclusions: detected values were lower than BTVs or screening values. The non-detect results (Sb, B, Cd, Hg, Se, Ag, and Tl) hover near the screening values and BTVs, but because the NDs are "less than" values, it can't be definitively stated that the NDs are below screening levels or BTVs. Here too, the NDs are close-enough to background and screening values as to be inconsequential for ecological receptors."

Regarding the C29 LUC, I have an Envirostor work services request submitted on 11/10/2015 that has not been assigned with an end date that has passed. So essentially, I need to gain perspective with when DTSC legal can begin work on the C29 LUC. With the risk analysis complete using current measures, C29 LUC should go smoothly.

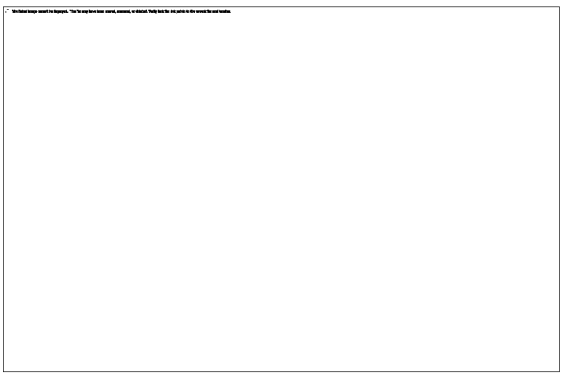
Alex, do you know which carve-out lands to focus on in the gathering of soil gas data (Layer A TCE contamination?) The contaminated groundwater is located deeper as you go westerly, so a substantial amount of carve-out lands would not likely be a threat to indoor air. In its transmittal letter of the Central Disposal Area (CDA) Vapor Intrusion Evaluation dated July 15, 2008, Aerojet agreed to conduct an updated evaluation every two years until completion of the Central OU RIFS to verify the assumption that anticipated TCE concentrations in the groundwater immediately downgradient from the CDA would not increase. I don't know if the Agencies agreed on this proposal or if Aerojet has done this for soil gas sampling recently.

Have to think about this in general for a bit. There are 3 LUCs in the early 2000s not signed by DTSC with different legal property descriptions, elements that would be considered under local land use jurisdictions, and references to old recorded survey plats. So it will be a challenge to figure it all out. Thanks.

Steve.

From: MacDonald, Alex@Waterboards
Sent: Friday, December 11, 2015 8:56 AM
To: Kwei, Orchid@DTSC; Jacobsen, Nathan@Waterboards; Ross, Steve@DTSC
Subject: Draft LUCs for C29

I did not find anything of concern in the subject draft LUCs for IC29 supplied by Aerojet Rocketdyne. There is one issue that I have brought to Aerojet and I think a path to resolution should be established prior to approving additional LUCs. That issue deals with property that has already been carved out (2002 PCD modification). There are areas with unrestricted use (except for the standard groundwater LUCs) that, now with the lowering of the risk value for TCE, are overlying groundwater with concentrations of TCE that could pose an adverse threat to indoor air. LUCs need to be placed on those properties and it is best to do that when the property is still in Aerojet Rocketydne's possession. I know Aerojet Rocketdyne is working on this, but you never know when property may be transferred as they are not required to provide notice on these already released properties.

Alexander MacDonald
Senior Engineer

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