From: MCCLINCY Matt
To: MCCLINCY Matt; Jean Lee; Sean Sheldrake/R10/USEPA/US@EPA
Cc: cyril.young@dsl.state.or.us; earoth@parametrix.com; greg_m_smith@fws.gov; PETERSON Jenn L; jeremy_buck@fws.gov; ANDERSON Jim M; jhowland@parametrix.com; Kemper_McMaster@fws.gov; John Malek/R10/USEPA/US@EPA; POULSEN Mike; OMEALY Mikell; Nancy.Munn@noaa.gov; pbattuello@parametrix.com; Lori Cora/R9/USEPA/US@EPA; Dana Davoli/R10/USEPA/US@EPA; Rene Fuentes/R10/USEPA/US@EPA; Joe Goulet/R10/USEPA/US@EPA; Sylvia Kawabata/R10/USEPA/US@EPA; Chip Humphrey/R10/USEPA/US@EPA; Eric Blischke/R10/USEPA/US@EPA; Kristine Koch/R10/USEPA/US@EPA; Socorro Rodriguez/R10/USEPA/US@EPA; Burt Shephard/R10/USEPA/US@EPA; Judy Smith/R10/USEPA/US@EPA (b) (6) audiehuber@ctuir.com; BBarquin@hk-law.com; cunninghame@gorge.net; craig.christian@eiltd.net; emadden@ecoisp.com; jeff.baker@grandronde.org; Lisa.Estensen@grandronde.org; ward@yakama.com; raygivens@givenslaw.com; tomd@ctsi.nsn.us; Valerie.lee@eiltd.net; KEPLER Rick J; STRUCK Rodney; Robert.Neely@noaa.gov; PURCHASE Steve
Subject: RE: Data Clarification / ARKEMA
Date: 10/26/2005 03:38 PM

I recently asked Jordan to look at the DDT plots that were discussed at the integration meeting last week and the subject of follow up discussion. From our review, it was apparent that the DDT sediment data collected by ARKEMA in their Phase II work was in the database but did not show up in the plots. Please see Jordan's explanation below.

When the complete DDT data set is pulled into the ARKEMA EE/CA study area the plots get VERY busy because of the amount of data, and it is difficult to discern any patterns. This finding also means that we did not have a complete picture of DDT when we were identifying preliminary sediment management areas (SMAs).

The plots run for PCBs also had a similar issue. However, Jordan has looked at the data that was not pulled in to the plots used for the SMA discussions and concluded that what was left out (low PCB concentrations and a limited # of data points) probably would not have changed the designation of preliminary SMAs.

Matt McClincy
DEQ

Hello Matt,

Recent questions regarding DDT data has promted me to take a closer look at both the DDT and PCB data sets. I wanted to inform you of some things I've discovered that could cause confusion for some people.

When using Query Manager to retrieve and view sediment chemistry results, we often use the DDT total column to display DDT concentrations harbor-wide. I discovered that there was quite a bit of data missing from previous studies that had analyzed for and detected DDT. The bottomline is that there are two fields for data: 1) DDT total (the summed total of 6 isomers (2,4 DDD/2,4 DDE/2,4 DDT/4,4 DDD/4,4 DDE/4,4, DDT); and 2) pp DDT sum (the sum of 4,4 DDD/4,4 DDE/4,4 DDT). Besides Round 2a sediment data, most of the other studies in the database only analyzed for the "4,4" isomers of DDT. So, I had been overlooking a large portion of the exisiting DDT data when displaying data. Even though I've fixed this problem in our data set, I wanted to inform you of this potentially confusing data quirk. Technically, it is list correctly in Query Manager, but I still thought it is was an easy mistake to make.

For PCBs, a similar situation exists. There is a "PCB sum" column and a "PCB sum r". Both of these fields refer to the sum of the reported aroclors but there are many more data values for the "PCB sum" field. I was informed that NOAA added the "PCB sum" field for convenience. There is sometimes a value in "PCB sum" but not "PCB sum r". I think this happens when there was no sum of aroclors reported for the study, but NOAA summed the aroclors themselves (this is good). However, not all values reported in "PCB sum r" field are necessarily reported in the "PCB sum" field. I use the "PCB sum" field to look at PCB total data, as should everyone else. A word of caution should be that there are about 20-30 sample results missing from this field that ARE listed in the "PCB sum r" field. For over 2,000 results, 20-30 does not make a big difference especially since most of them are in the 5-10 ppb range. We should consider pointing this issue out to NOAA.

Please forward this message on to anyone who would find this information useful.

Thanks,

Jordan

Hi Jean,

I am sorry I was unable to participate in the discussions on Wednesday. Jim Anderson mentioned the discussion the group had about the elevated DDT concentrations upstream of Dock 1 and the speculation about another source (e.g., discharge pipe). It is always important to continue to check the data against the conceptual site model. In this case, I think ARKEMA's model can explain the elevated DDT upstream of Dock 1 without another discharge point.

The DDT data map you attached, which I am assuming included the same data Jordan was using, does not include the data from the Phase I and II ARKEMA in water investigation data. The location of the outfall pipe that ARKEMA suspects that the initial DDT manufacturing process waste was discharged through is just down stream (approximately 100 feet) of the access to Dock 1. The ARKEMA Phase I and II sediment data detected much higher DDT concentrations in sediment in this area than are reflected in the LWG data presented on the figure you attached. For example:

4,500,000 ug/Kg at WB-9 at 8 to 10 feet
3,500,000 ug/Kg at WB-24 at 10.6 to 12.6 feet
920,000 ug/Kg at WB-8 at 6.8 to 9.3 feet.

Looking at the DDT concentrations in the former DDT process waste pond gives some idea of what the DDT concentrations probably were in the waste that was dischared through the outfall. DDT concentrations in the process waste pond range from 10,000,000 to 100,000,000 ug/Kg (note much of this has been removed by ARKEMA). When the LWG and ARKEMA sediment data sets are looked at together, I think one can extend the DDT foot print from the outfall source area upstream of Dock 1 and account for the DDT concentrations observed especially when one considers the up and downstream sediment dynamics, prop wash from ocean going ships and tugs that used the docks and construction of the newer docks.

The December 2003 Phase II Stage 1 and 2 In-River Groundwater and Sediment Investigation Report did a much better job of presenting a picture of the distribution of DDT in sediment than the EE/CA work plan. It amazingly even includes isoconcentration plots of the data.

Anyway, let me know if you have any questions.

Matt McClincy
DEQ ARKEMA Project Manager

-----Original Message-----
From: Jean Lee [mailto:jean.lee@eiltd.net]
Sent: Thu 10/20/2005 12:39 PM
To: Sheldrake.Sean@epamail.epa.gov
Cc: cyril.young@dsl.state.or.us; earoth@parametrix.com; greg_m_smith@fws.gov; PETERSON Jenn L; jeremy_buck@fws.gov; ANDERSON Jim M; jhowland@parametrix.com; Kemper_McMaster@fws.gov; malek.john@epamail.epa.gov; MCCLINCY Matt; POULSEN Mike; OMEALY Mikell; Nancy.Munn@noaa.gov; pbattuello@parametrix.com; cora.lori@epamail.epa.gov; davoli.dana@epamail.epa.gov; fuentes.rene@epamail.epa.gov; goulet.joe@epamail.epa.gov; kawabata.sylvia@epamail.epa.gov; Humphrey.Chip@epamail.epa.gov; blischke.eric@epamail.epa.gov; Koch.Kristine@epamail.epa.gov; Rodriguez.Socorro@epamail.epa [redacted] @epamail.epa.gov; smith.judy@epamail.epa.gov; (b) (6) [redacted] audiehuber@ctuir.com; BBarquin@hk-law.com; cunninghame@gorge.net; craig.christian@eiltd.net; emadden@ecoisp.com; jeff.baker@grandronde.org; Lisa.Estensen@grandronde.org; ward@yakama.com; raygivens@givenslaw.com; tomd@ctsi.nsn.us; Valerie.lee@eiltd.net; KEPLER Rick J; STRUCK Rodney; Robert.Neely@noaa.gov; PURCHASE Steve
Subject: Re: Fw: Arkema Key Topics and Comments

Hi Sean and Peter,

It came up at the TCT meeting yesterday that we were surprised how much DDT contamination in sediments showed up in the sediments south of Dock 1 (not between Docks 1&2). This may be from filling activities. Since

I was in the electronic version of the map today, anyway, I thought I would forward this info to you. It's unfortunate that the dock structures aren't shown on the Round 2 data, but I am pretty sure that Dock 1 is roughly between C356 and C359 (these cores are in-river of the

actual dock). Note the total DDT concentration of 15,300 ppb in surface

sediment at G360.

-Jean

Sheldrake.Sean@epamail.epa.gov wrote:

>All,
>
>For tomorrow's telecon at 1pm, 206.553.4602. Seattle office folks,
>let's meet in room 15M. We'll go over comments received to date and
>coordinate major comment direction.
>
>thanks!
>
>S
>
>Sean Sheldrake
>USEPA
>Environmental Cleanup Office
>1200 Sixth Avenue
>Mailstop: ECL-110
>Seattle WA 98101-1128
>sheldrake.sean@epa.gov

>Phone: 206/553-1220 / Fax: 206/553-0124 or -0910
>http://yosemite.epa.gov/r10/oea.nsf/webpage/dive+team
>http://yosemite.epa.gov/r10/cleanup.nsf/sites/ptldharbor
>Deliveries: 9th floor mailroom
>Visitors: Check-in @ Service Center on 14th floor
>----- Forwarded by Sean Sheldrake/R10/USEPA/US on 10/17/05 09:57 AM
>-----
>

> Kelli Warren

> <KWarren@paramet

> rix.com> To

> Sean Sheldrake/R10/USEPA/US@EPA

> 10/14/05 02:57 cc

> PM Eric Roth

> <earoth@parametrix.com>,

> epafile.Kirkland.DOM-KIRKLAND@par

> ametrix.com, Ellen Watson

> <ewatson@parametrix.com>

> Subject

> Arkema Key Topics and Comments

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>
>Sean,
>here is a message from Peter Battuello.
>
>Sean: here are the comments we've compiled to date. I've also included
>a summary analysis grouped by key work area.
>
>1. Comments list is in order of document & section, with EECA general
>topics at the end of the numbered sections. Also, I combined like
>comments & deleted a few comments that were duplicates (from the same
>reviewer).
>
>2. Evaluated all of the comments by type of comment (e.g., editorial,
>additional data needed, or major flaw) and then reviewed in depth the
>"major flaws" and synthesized them into the comments on the word
>document attached.
>
>I think this will be a good basis for our discussion on Tuesday.
>
>Call me with comments/questions. Also forward as you see appropriate.
>
>
>PETER
>(See attached file: Arkema EECA Review Comments EW.xls)(See attached
>file: Arkema EECA Rvw cover letter topics.doc)
>

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