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EMAIL AND ATTACHED U S NAVY RESPONSE TO THE U S EPA REGION V COMMENTS
ON THE DRAFT FINAL INTERIM MEASURES REPORT FOR UNEXPLODED ORDNANCE 7
(UXO 7) NSA CRANE IN
09/09/2015
NAVFAC MID ATLANTIC

Cohen, Deborah

From: Brent, Thomas CIV NAVFAC MIDLANT, PWD Crane <thomas.brent@navy.mil>
Sent: Wednesday, September 09, 2015 3:30 PM
To: Ramanauskas, Peter
Cc: Cole, Linda L CIV NAVFAC MIDLANT, IPTNE; Bernhardt, Aaron; Basinski, Ralph; Cohen, Deborah
Subject: RE: IMR_UXO7_Draft Final N62470-08-D-1008/F271
Attachments: Response to Additional EPA Comment_Draft Final IMR for UXO 7.docx
Signed By: thomas.brent@navy.mil

Pete,

Attached are the responses to Dan's comments on the UXO 7 IMR. Hopefully this ties up all of the comments, but if you should have further questions or comments, please let me know and maybe we can jump on a call to get it sorted out.

Thanks,
Tom

-----Original Message-----

From: Ramanauskas, Peter [mailto:ramanauskas.peter@epa.gov]
Sent: Friday, July 17, 2015 5:26 PM
To: Brent, Thomas CIV NAVFAC MIDLANT, PWD Crane
Subject: FW: IMR_UXO7_Draft Final N62470-08-D-1008/F271

Tom,

Some feedback from Dan on your responses to comments. Let us know if you have questions or need clarification.

Thanks,
Pete

-----Original Message-----

From: Mazur, Dan
Sent: Friday, July 17, 2015 4:08 PM
To: Ramanauskas, Peter; Mangino, Mario
Subject: RE: IMR_UXO7_Draft Final N62470-08-D-1008/F271

Pete,

I have a follow-up comment on the Navy's reply to Item 3 as follows:

Each sample's summed LMW and HMW PAH values needs to be compared to the corresponds Eco-SSL LMW and HMW screening benchmark. For Tables G.4-1 and G.4-2, please sum the LMW and HMW data for each individual sample. For example, using sample ID "X7-WTR4-CA- (on page 9 of 10) the sum of the LMW PAHs is 0.4736 mg/kg and the sum of the HMW PAHs is 2.497 mg/kg. All of the individual samples in Tables G.4-1 and G.4-2 need to have both LMW and HMW PAH values calculated. Also the corresponding text will need revised.

For a screening ecological risk assessment (SERA), the sample with the highest contaminant concentration will be compared to the screening benchmark. It's not appropriate to average the data of all the samples for a SERA.

Let me know if this comment is clearly understood.

Dan

-----Original Message-----

From: Ramanauskas, Peter
Sent: Wednesday, July 08, 2015 8:24 AM
To: Mazur, Dan; Mangino, Mario
Subject: FW: IMR_UXO7_Draft Final N62470-08-D-1008/F271

Hello Gentlemen,

Just wanted to check in on this one to see if you had any additional comments on the Navy's responses.

Thanks,
Peter

-----Original Message-----

From: Ramanauskas, Peter
Sent: Tuesday, June 23, 2015 11:19 AM
To: Daniel Mazur; Mario Mangino
Subject: FW: IMR_UXO7_Draft Final N62470-08-D-1008/F271

Hello Gentlemen,

Passing along the Navy's responses to our comments on the subject report. Please let me know if you have any issues with their responses on UCL or the eco risks.

Thanks,
Peter

-----Original Message-----

From: Brent, Thomas CIV NAVFAC MIDLANT, PWD Crane [mailto:thomas.brent@navy.mil]
Sent: Monday, June 22, 2015 8:25 AM
To: Ramanauskas, Peter
Cc: Cole, Linda L CIV NAVFAC MIDLANT, IPTNE; dgriffin@idem.in.gov; Cohen, Deborah; Barringer, Rick; Basinski, Ralph
Subject: RE: IMR_UXO7_Draft Final N62470-08-D-1008/F271

Pete,

The attached PDF provides containing responses to your May 11, 2015 comments. Please review and let us know if you have any questions. Please let me know if you need the native Word or Excel files.

Thanks,
Tom

-----Original Message-----

From: Ramanauskas, Peter [mailto:ramanauskas.peter@epa.gov]

**RESPONSES TO USEPA REGION 5 FOLLOW-UP COMMENTS (07/17/15) ON
DRAFT-FINAL UXO 7 INTERIM MEASURES REPORT (January 2015)
NSA CRANE, CRANE, INDIANA**

Comment: Each sample's summed LMW and HMW PAH values needs to be compared to the corresponds Eco-SSL LMW and HMW screening benchmark. For Tables G.4-1 and G.4-2, please sum the LMW and HMW data for each individual sample. For example, using sample ID "X7-WTR4-CA- (on page 9 of 10) the sum of the LMW PAHs is 0.4736 mg/kg and the sum of the HMW PAHs is 2.497 mg/kg. All of the individual samples in Tables G.4-1 and G.4-2 need to have both LMW and HMW PAH values calculated. Also the corresponding text will need revised.

For a screening ecological risk assessment (SERA), the sample with the highest contaminant concentration will be compared to the screening benchmark. It's not appropriate to average the data of all the samples for a SERA.

Response: The evaluation in the IMR was not a SERA, but just an evaluation of the residual risks. The SERA was conducted as part of the 2009 RFI Report for UXO 7, and in that document, risks to mammal and birds from PAHs were evaluated. Risks were evaluated using maximum PAH concentrations in the screening step and average PAH concentrations in the Step 3a refinement step and risks to those receptors were determined to be acceptable. That is the reason why there was not an ecological MCG for PAHs in the IMWP.

That being said, instead of calculating LMW and HMW PAH concentrations for each sample, two columns were added to the end of Tables G.4-1 and G.4-2 to present the maximum LMW and HMW PAH concentrations across each trap range (east and west), and then the values were summed to calculate the total LMW and HWM PAH concentrations across the site (see attached tables). Using this worst-case scenario, the greatest total LMW PAH concentrations the east and west trap ranges were 0.70 mg/kg and 0.98 mg/kg, respectively, while the greatest total HMW PAH concentrations the east and west trap ranges were 2.0 mg/kg and 3.2 mg/kg, respectively. The LMW PAH concentrations did not exceed either of the two Eco SSLs (for soil invertebrates and mammals), while the HMW PAH concentrations only exceed the mammal Eco SSL of 1.1 mg/kg. However, average soil concentrations are used for the Step 3a refinement food chain models. The following table, which shows the average PAH concentrations in the west and east trap ranges compared to the Eco-SSLs for soil invertebrates and mammals, was included in the revised text based on the response to the initial comments on the IMR.

	West Trap Range PAH Surface Soil Data (Surface to 2 ft. bgs) Summed Averages for Relevant PAH Constituents (mg/kg)	East Trap Range PAH Surface Soil Data (Surface to 2 ft. bgs) Summed Averages for Relevant PAH Constituents (mg/kg)	ECO-SSLs Soil Invertebrates (mg/kg)	ECO-SSLs Mammals (mg/kg)
LMW PAHs	0.081	0.065	29	100
HMW PAHs	0.263	0.159	18	1.1

As can be seen from this table, because the average HMW PAH soil concentrations are much lower than the Eco SSL value for mammals, risks to mammals from PAHs in the soil are acceptable.