From: Goodfellow, Bill
To: Greenberg, Marc; "camenzie@exponent.com"
Cc: "mmeredith@setac.org"; "bruce.vigon@setac.org"
Subject: Re: Tuesday comments
Date: Wednesday, April 27, 2011 9:24:58 AM

Thank you Charlie.

Bill

William L. Goodfellow, Jr.
Vice President

EA Engineering, Science, and Technology, Inc.
15 Loveton Circle
Sparks, MD 21152
T: (410) 771-4950
F: (410) 771-4204
Email: bgoodfellow@eaest.com

From: Greenberg.Marc@epamail.epa.gov [mailto:Greenberg.Marc@epamail.epa.gov]
Sent: Wednesday, April 27, 2011 09:13 AM
To: camenzie@exponent.com <camenzie@exponent.com>
Cc: mmeredith@setac.org <mmeredith@setac.org>; Goodfellow, Bill; Bruce Vigon <bruce.vigon@setac.org>
Subject: Re: Tuesday comments

Charlie,

Many thanks!

Marc S. Greenberg, Ph.D.
Environmental Toxicologist
U.S. EPA - Environmental Response Team
2890 Woodbridge Ave., Bldg. 18
Edison, NJ 08837
+ 732 452 6413 (T)
+ 732 321 6724 (F)
greenberg.marc@epa.gov

-----"Charles Menzie" <camenzie@exponent.com> wrote: -----

> To: <mmeredith@setac.org>, Marc Greenberg/ERT/R2/USEPA/US@EPA
> From: "Charles Menzie" <camenzie@exponent.com>
> Date: 04/27/2011 09:08AM
> Subject: Tuesday comments
>
> On Tuesday I listened to the ecosystem session and to a few fate and transport talks:
>
> My major take away was the obvious need to align exposure and effects and mode of effect. A number of the

presentations provided snipets but these often lacked explicit consideration of problem relevance. This gap was most evident for ecotox presentations. I found these useful as "hazard assessments" but wished the authors were able to extend their work better. To a large degree this integration occurred in the panel discussion. Here are some points I found interesting:

1. Given the myriad of receptors and habitats, the exposure regimes, and modes of effect, a relative risk/benefit approach makes sense. When I have done this I refer to it as a comparative integrated benefits analysis. The problem is akin to the story of "the blind men describing the elephant". Various myopic views of a complex problem will yield very different assessments and conclusions. A proper approach for optimizing benefits and minimizing risks will require a holistic and integrated approach. This can be accomodated using an adaptation of relative risk methods.

2. A weight of evidence approach would have benefit in assessing risks.

3. Neuston and sea-surface microlayer exposures could be important to consider. This is again an exposure consideration.

4. The overall generalization that holds for this spill is "location, location, location" or "situation, situation, situation". This contextual aspect of oil spill impacts has been known for decades but is rediscovered around major spills. Because of the contextual and situational nature of exposure, effects, and modes of effects, Problem Formulation and Conceptual Models should be a key front-end aspect of response, assessment, and restoration. Charlie