

ML1000503320.txt

From: Jenny Goodman [Jenny.Goodman@dep.state.nj.us]
Sent: Wednesday, September 26, 2007 12:03 PM
To: Donna Gaffigan; John Bradbury; Patricia Swain; Andrea Kock; Kenneth Kalman; Robert L. Johnson; Duane Schmidt; Rebecca Tadesse; Jon Peckenpaugh; Shamica Walker; Mark Roberts; Raymond Lorson
Subject: Re: Continued discussion of RAIs 3,5,17 and 18 (and RAI 8)

Categories: Shieldalloy-04007102
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Ken,
The NJDEP has the following comments on the approach proposed by SMC in the 9/12/07 email from Dave Smith summarizing the conf call of Sept.11.

The approach given in the email is slightly different than what was discussed in the call. In the call SMC stated that MODFLOW would not be used and that RESRAD would be used to bound the ground water scenario. In the email, they want to use MODFLOW to do a confirmatory evaluation of the failure of institutional controls. SMC has agreed to provide the information requested in the RAI for only that scenario. Providing the requested information would include characterizing the source term and other input parameters, such as Kd. Yet, it appears from the response to RAI's 5,17, and 18, that SMC does not intend to do this.

The Department believes that RESRAD should be sufficient because it places a well at the edge of the contaminated zone rather than dilute the contamination to some arbitrary distance downgradient.

RAI 5,17,18
SMC did not address characterization of the source term in the email or the conference call. We believe this is a serious oversight.

The approach SMC wants to take (selecting Kd values from the literature) can be full of uncertainty because "Kd values commonly reported in the literature may vary by as much as six orders of magnitude for a specific radionuclide." It is unlikely that any literature values will be found that can be considered applicable to the site-specific slag and/or bag-house dust. Due to the extremely large uncertainties of the literature approach, and because the ground water pathway is one of the critical pathways, the Department concludes that site specific testing of source, soil, and geologic materials, using ASTM or EPA methods, should be required by NRC.

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Subject: Re: Continued discussion of RAIs 3,5,17 and 18 (and RAI 8)
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From: Jenny Goodman

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