

## Darlene Goering

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**From:** kirby olson [kirby\_olson@nmenv.state.nm.us]  
**Sent:** Thursday, May 09, 2002 2:57 PM  
**To:** Darlene Goering  
**Cc:** 'kirby\_olson@nmenv.state.nm.us'  
**Subject:** Re: FW: 0-019 RSI text to add

The suggested added text in this e-mail should be sufficient to document that the barium levels at 0-019 do not reflect the potential for ecological risk suggested by the high hazard quotients for barium for deer mice. Before the barium study results at Canon de Valle are used to revise the ESL or for general use at other sites, NMED should have a written copy of the Tardif et al paper to review. Also, Randy Ryti and Rich Miranda have told me that the excavation of fill at the 0-019 site is only under the area to be covered by the building foundation. The subsurface contamination would therefore not pose a risk to ecological receptors after construction.

Darlene Goering wrote:

> -----Original Message-----  
> From: Terry Rust [mailto:trust@lanl.gov]  
> Sent: Monday, April 29, 2002 11:31 AM  
> To: darlene\_goering@nmenv.state.nm.us  
> Kirby,  
>  
> What are we doing with this? Are we issuing an NOD or is it not worth it?  
>  
> Darlene  
>  
> Subject: Fwd: 0-019 RSI text to add  
>  
> >Damell,  
>  
> Here's some stuff that Randy and Kirby apparently came up with to clarify  
> the CdV reference in the RSI Response. We can send a clarifying letter or  
> you can append this or ??? whatever. The Pdf stuff may be hard to add to  
> the rsi response though, it's more an FYI  
>  
> toodles  
>  
> tr  
>  
> >Terry,  
>  
> >In the 0-019 RSI response, the last sentence before Table 2 (Deer Mouse HI  
> >values for Hillside Subareas) is:  
> >  
> >"Lastly, adverse effects on small mammals from elevated soil  
> >concentrations of barium are being investigated in Cañon de Valle and  
> >initial results of these field studies show no adverse effects from higher  
> >concentrations of barium."  
> >  
> >To this we could add the following --  
> >  
> >"The deer mouse barium hazard quotient in Cañon de Valle was 190 for the  
> >central tendency concentration (95% upper confidence level of the median,  
> >see Tardiff et al. 2001) or nearly four times larger than the barium HQ  
> >reported for the deer mouse in Table 2.5-9 of the PRS 0-019 VCA Completion  
> >Report. At these higher concentrations of barium in Cañon de Valle no



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> >adverse effects on the deer mouse population were noted for population  
> >measures (e.g., number of lactating females or presence of juveniles) or  
> >individual measures (e.g., body weight) of adverse effects (Tardiff et al.  
> >2001)."  
> >  
> >Reference:  
> >  
> >Tardiff, M.F., K. Bennett, D.D. Hickmott. Baseline ecological effects  
> >characterization for terrestrial receptors in a semi-arid canyon with  
> >perennial flow. Presented at Society for Risk Analysis Annual Meeting,  
> >Seattle, Washington, December 2001 Los Alamos National Laboratory Report  
> >LA-UR-01-xxxx, Los Alamos, New Mexico  
> >  
> >Randy  
> >  
> >PS - I will pass along the LA-UR number for the Tardiff et al. paper when  
> >I get it. Mark's poster is attached as two pdfs.  
> >  
> >  
> >  
> -----  
>           Name: CdV\_page1.pdf  
> CdV\_page1.pdf   Type: Acrobat (application/pdf)  
>           Encoding: base64  
> >  
>           Name: CdV\_page2.pdf  
> CdV\_page2.pdf   Type: Acrobat (application/pdf)  
>           Encoding: base64