

Elzie, Teri L

From: Zeisloft, James H Jr
Sent: Thursday, December 09, 1999 4:22 PM
To: 'Barbara Harper'; Elzie, Teri L; 'Dan Landeen'; 'Doug Mosich'; 'Jake Jakabosky'; 'Jay McConnaughey'; 'JR Wilkinson'; 'Larry Gadbois'; 'Nick Iadanza'; 'Preston Sleeper'; 'Susan Coburn Hughs'; 'Tom O'Brien'; Teel, Darci D
Cc: Elzie, Teri L; Zeisloft, James H Jr
Subject: RE: 1100 PAS/DDT

Folks,

For those of you who aren't real familiar with these proposed regs., the exclusions and simplified evaluation procedure (which uses a 1.0 ppm cleanup level) do not apply to the Hanford DDT/DDE sites. The 0.7 ppm cleanup level is a "worst case" default cleanup level based on robins eating earthworms exposed to contaminated soil (See Table 749-3, footnote e). Shrews, voles and robins were evaluated, with robin exposure generating the lowest soil cleanup level (i.e. 0.7 ppm). The proposed regs. also allow for site specific evaluations. BHI has already evaluated DDT from a site specific perspective, based on what they think the regs would require (BHI has been reviewing and talking to Ecology about these regs for over a year). Using the proposed site specific evaluation procedure, they replaced robins with meadowlarks and earthworms with beetles. They estimate the site specific regulatory cleanup level under the proposed regs. would be approximately 1.5 ppm. We only have two insect tissue samples with DDE concentrations over 1.5 ppm (1.90 and 2.90 ppm). Back-calculating to allow for bio-concentration, the soil concentration associated with the 1.90 ppm sample may not exceed 1.5 ppm. That leaves us with one, maybe two sample sites of concern. In our opinion, not enough to warrant additional study.

Jamie

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

From: Barbara Harper [SMTP:bharper@nwinfo.net]
Sent: Thursday, December 09, 1999 2:01 PM
To: Elzie, Teri L; 'Dan Landeen'; 'Doug Mosich'; 'Jake Jakabosky'; 'Jay McConnaughey'; 'JR Wilkinson'; 'Larry Gadbois'; 'Nick Iadanza'; 'Preston Sleeper'; 'Susan Coburn Hughs'; 'Tom O'Brien'; Teel, Darci D
Cc: Elzie, Teri L; Zeisloft, James H Jr
Subject: Re: 1100 PAS/DDT

All,

The WAC code gives 0.7 mg/kg in general "wildlife" tissue as the level of DDE that is "expected to be protective at any MTCA site." "Where these values are exceeded, various options are provided for demonstrating that the hazardous substance does not pose a threat to ecological receptors at a site, or for developing site-specific remedial standards for eliminating threats to ecological receptors."

According to Jamie's note below, we are exactly at the level of concern, with some samples exceeding it and some samples below it. Unfortunately, that doesn't help resolve the issue. The derivation of the 0.7 should be evaluated for whether it includes avian data, what species, and so on.

If the 0.7 is exceeded, there are two tracks for ecorisk assessment. A simplified track is allowed if the contaminated is less than 350 square feet, the contamination is more than 6 feet deep, surrounding land use is unsuitable for wildlife, or institutional controls are in place to prevent wildlife exposure (e.g. the landfill cover is maintained).

Site specific terrestrial ecological evaluation is called for if conditions for a simplified evaluation are not met. "Any chemical that exceeds the ecological indicator concentrations shall be included." A cautionary note says that the indicator number is neither a cleanup number (where there is no concern below it) nor an absolute indication that remediation is required, depending on whether characterization is thorough, and site characteristics such as frequency and magnitude of exceedance, what biota are present, whether there may be additional contaminants present, etc. The full eco assessment then includes receptor identification, toxicity, literature reviews, soil bioassays, a wildlife exposure model, biomarkers, site-specific field studies aimed at demonstrating whether biota are exposed more than at control or background sites and an overall weight of evidence, and uncertainty analysis and sampling statistics.

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Note that a desert biota was noted separately by Nigel Blakeley, who wrote this section from a western Washington perspective. He was mostly using earthworms and robins. So, we really don't know just from MTCA whether the 0.7 is applicable to beetles and passerines in arid conditions.

It might be a useful exercise to ask whether this site, if located elsewhere, would receive a simplified or a full eco assessment, or no assessment at all, under MTCA. Perhaps Ecology could walk us through the ecological aspects of MTCA and the decision tree. Since this site sets the precedence for other sites, it might be a good learning exercise for all of us. If MTCA differs from CERCLA, we need to know. Note that MTCA has not addressed NRDA issues, and that the ecological indicator is used to determine the level of assessment that is needed, not to set a specific cleanup level. I am not sure how ecological cleanup levels under MTCA or CERCLA are set once the assessment is done.

Barbara

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

From: Elzie, Teri L <TLElzie@mail.bhi-erc.com>
To: 'Barbara Harper' <bharper@nwinform.net>; 'Dan Landeen' <danl@timpt.nezperce.org>; 'Doug Mosich' <dmos461@ecy.wa.gov>; 'Jake Jakabosky' <jjakabos@or.blm.gov>; 'Jay McConnaughey' <jmcc461@ecy.wa.gov>; 'JR Wilkinson' <jrwilkinson@ctuir.com>; 'Larry Gadbois' <gadbois.larry@epa.gov>; 'Nick Iadanza' <Nick.Iadanza@noaa.gov>; 'Preston Sleeper' <preston_sleeper@ios.doi.gov>; 'Susan Coburn Hughs' <susan.c.hughs@state.or.us>; 'Tom O'Brien' <tom_obrien@mail.fws.gov>; Teel, Darci D <DDTeel@mail.bhi-erc.com>
Cc: Elzie, Teri L <TLElzie@mail.bhi-erc.com>; Zeisloft, James H Jr <James_H_Jr_Zeisloft@apimc01.rl.gov>
Sent: Tuesday, December 07, 1999 7:27 AM
Subject: FW: 1100 PAS/DDT

> Good Morning!

>

> Please see message below from Jamie Zeisloft.

>

> Teri

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>> -----Original Message-----

>> From: Zeisloft, James H Jr

>> Sent: Monday, December 06, 1999 6:02 PM

>> To: Elzie, Teri L

>> Subject: 1100 PAS/DDT

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>> Teri,

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>> Please forward this message to the trustees. Thanks.

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>> Fellow Trustees,

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>> The Washington Department of Ecology has re-released it's draft ecological

>> risk assessment regulations. The Website address for the proposed rule is:

>> <http://www.wa.gov/ecology/leg/activity/wac173340.html>. See Sections

>> 7490-7494 (immediately following Section 747). Amongst other things,

>> the

>> draft regs. address DDT/DDE contamination and concentrations protective of

>> wildlife. Tables 7 & 8 propose DDT/DDE concentrations of 1.0 ppm and 0.7

>> ppm respectively. Table 8 represents concentrations that are expected to

>> be protective of wildlife at any MTCA site (i.e. irrespective of species

>> or habitat).

>>

>> A quick comparison of the RL DDT report concentrations and the proposed

> > concentrations shows that the average DDE concentration in insect tissue
> > at Horseshoe Landfill is 0.678 ppm vs. the 0.7 ppm in Table 8. And the
> > 0.678 ppm concentration includes bio-concentration. Only 6 samples
> > exceeded the 0.7 ppm concentration, all with bio-concentration. In RL's
> > opinion (and apparently Ecology's), this is further evidence indicating
> > that the DDT/DDE in Horseshoe Landfill does not warrant additional
study.
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> >
> > Jamie
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