

Colorado Department of Public Health and the Environment

Comments on

Technical Memorandum No 11 (Final)
Contaminants of Concern for OU 5

1) Table 2.5 Summary Statistics for Data from Seep Water Samples How can a comparison of data from one OU 5 sample with background be considered statistically valid? Is there any on going sampling being done to verify the initial findings? As it is any seep water information must be considered preliminary. No PCOCs should be eliminated from this media based on professional judgement or even on the concentration toxicity screen. There simply is not enough data on which to base such a decision.

Therefore 1,1-dichloroethene should not have been eliminated as a COC from this media on this basis alone even though it constituted only a small portion of the carcinogenic risks from this media (see also comment 3).

2) Table 2.9 It is unclear why DOE used the Inhalation Cancer Slope Factor for 1,1-dichloroethene which was listed in HEAST 1994 when a value for this chemical was apparently available in IRIS prior to October 1994. DOE's Programmatic Risk Based Preliminary Remediation Goals Final Revision I (October 1994) lists an inhalation cancer slope factor for this chemical of $1.75E-1$. This value differs from the HEAST value of $1.2E+00$ listed in Table 2.9. The inhalation cancer slope factor listed in DOE's Programmatic Risk Based Preliminary Remediation Goals October document ($1.75E-1$ mg/kg d) and the unit risk factor for air listed in IRIS (June 1995) ($5E-5/\mu\text{g}/\text{m}^3$) are equivalent, and should have been used since EPA recommends that IRIS data always take precedence over HEAST data.

3) Table 7.3 Concentration/Toxicity Screen of Carcinogens in Seep Water The con/tox screen was performed incorrectly for this media. Even when the incorrect slope factor for 1,1-DCE is used (see comment #2) the chemical specific risk factors and the percentages of total risk are different than those listed in this table. The correct con/tox screen is as follows:

Carcinogen	Max conc (mg/L)	CSF (mg/kg d)	Chem spec Risk factor (R _i)	% of total risk
1,1 DCE	$4.00E-3$	$1.75E-1$	$7.00E-4$	31.5%
PCE	$2.80E-2$	$5.20E-2$	$1.46E-3$	6.2%
TCE	$7.00E-3$	$1.10E-2$	$7.70E-5$	0.3%
		total risk factor =	$2.23E-3$	100.0%

Therefore 11 DCE did not fail the con/tox screen and should not have been eliminated as a COC on this basis. It should remain as a PCOC in this media.

4) Section 2.7 DOE states in the second paragraph that it assumed construction worker exposure to subsurface soil when defining RBCs for screening purposes. This assumption was not part of the RBC agreement. All three agencies agreed to use residential RBCs for all media when screening.

5) Table 10.1 The only valid comparisons for OU 5 stream sediments concentrations are to RFETS background stream sediment concentrations. At best, the comparisons to Front Range soils and to shales and clays in general can only be considered supplementary to site specific background comparisons.

6) Section A.5.2 What does the groundwater distribution of arsenic look like? Is there a map available showing the sitewide distribution of arsenic in groundwater?

7) EPA's *Risk Assessment Guidance for Superfund* (RAGS) recommends using total contaminant values rather than filtered or dissolved contaminant values when assessing risk because of the potential to underestimate chemical concentrations in water from an unfiltered tap (RAGS Part A pp 6-27). Have dissolved values been reported for water samples collected at OU 5 and have OU 5 values been compared with background concentrations derived from dissolved values?