Tropical Pacific EHE Guidance

Appendix 8: Summary of Fall 2017 Updates (last updated 11/6/17)

Volume 1:

1. Section 2.2.1. **Groundwater Beneficial Use**. Discussion of classification of groundwater as potential source of drinking water expanded.
2. Section 2.4.2. **Organochlorine Pesticides**. Note added to clarify that alpha and beta BHC are assumed to be minor components of Lindane and do not need to be assessed separately, even if reported separately by the laboratory.

Volume 2:

Appendix 1 Text:

3. Appendix 1, Section 1.3 (see also Table J). Discussion of estimation of noncancer **inhalation RfCs** from oral RfDs for volatile chemicals that lack the former expanded. Calculation of **inhalation UIR** from oral SFO for volatile carcinogens that lack the former discontinued (inhalation pathway not demonstrated to pose a cancer risk).
4. Appendix 1, Section 1.4. Discussion of **default**, **target risks** used to calculate screening levels in terms of USEPA guidance for acceptable risk ranges expanded (e.g., cancer risk 10^{-6} and noncancer HQ 0.2).
5. Appendix 1, Section 4.2.2. **Deviations from default, target risks** to develop screening levels for specific chemicals summarized (see also Appendix 1, Tables K-1, K-2 and K-3).

Appendix 1 Tables:

6. Appendix 1, Table F-3b. **Inhalation pathway** excluded for calculation of toxicity-based, drinking water screening level for **TPHmd** (assumed to be dominated by nonvolatile degradation products at point of potential impacts to water supply wells; see discussion in Appendix 1, Section 6.6).
7. Appendix 1, Table G-1a. SESOIL algorithm for **leaching based soil action levels** applied to **TPH** categories, with a maximum cap of 5,000 mg/kg. Alternative, more conservative TPH soil screening levels in Table G-1b for **highly vulnerable aquifers** not affected.
8. Appendix 1, Table G-2. Target groundwater screening levels used to calculate **soil vapor screening levels** for leaching concerns corrected to reflect lowest of drinking water goals based on toxicity and taste and odors (see Table F-1a; aquatic toxicity mistakenly considered in previous editions).
9. Appendix 1, Table I-1. Drinking water **taste and odor threshold for TPH** increased from 100 µg/L to 500 µg/L based on re-evaluation of past studies (see discussion in Appendix 1, Section 6.6).
10. Appendix 1, Table J. **Physiochemical parameter values and toxicity factors** updated to reflect values used in June 2017 USEPA Regional Screening Levels guidance. No significant change to screening levels for common contaminants with the exception of PAHs (soil) and TPH (drinking water), discussed below.

11. Appendix 1, Table J. **PAH** screening levels revised to reflect updated toxicity factors in USEPA RSLs. Refer to Appendix 1, Section 4.2 for summary of target risks applied to individual PAH compounds for calculation of screening levels.
12. Appendix 1, Table J. Default physio-chemical parameters for TPHg and TPHd revised to reflect MADEP parameter values for C9-C10 aromatics (see Section 6) and SESOIL algorithm used to develop soil leaching action levels (see Table G-1; action levels increased).
13. Appendix 1, Table K-1. **Lead** screening level for residential soil reduced from 400 mg/kg to 200 mg/kg to reflect anticipated reduction in USEPA RSL (see Section 4.3.1.3).

Other

14. Appendix 1, EAL Surfer. **Bioaccessible arsenic** soil screening levels highlighted in EAL Surfer notes for arsenic.
15. Nov 6, 2017: Screening levels for BROMO,1,2- CHLOROPROPANE,3- and DIBROMOCHLOROMETHANE (error in soil vapor model) and TRICHLOROPROPANE, 1,2,3- (error in tapwater model) corrected.

2017 TPESL Updates, Affected screening levels:

Chemical	Revision	Affect screening levels
1,2 Dichloropropane	Revised USEPA toxicity factor (ESL decreased)	Soil, indoor air, soil vapor
Dieldrin	Corrected USEPA UIR (ESL decreased)	Soil
Heptachlor, Heptachlor Epoxide	Target cancer risk increased to 10^{-5} (ESL increased)	Soil, drinking water (toxicity)
Lead	Residential soil screening level reduced to 200 mg/kg to reflect anticipated reduction of the USEPA RSL of 400 mg/kg while consideration widespread, anthropogenic background (e.g., past auto exhaust)	Soil
Benzo(a)pyrene	Cancer-based toxicity factor revised in USEPA RSLs and noncancer toxicity factor added (ESL increased)	Soil, drinking water (toxicity)
Other Carcinogenic PAHs: Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(f)fluoranthene, Chrysene, Dibenzo(a.h)anthracene, Indeno(1,2,3,-cd)pyrene	Cancer-based toxicity factors revised in USEPA RSLs but no noncancer toxicity factors proposed and residential target risk revised from 10^{-4} to 10^{-5} (ESLs decreased)	Soil, drinking water (toxicity)
Propiconazole	Revised USEPA toxicity factor (ESL increased)	Soil
TPHg	Drinking water taste and odor threshold increased (ESL increased)	Drinking water
TPHd	Inhalation route excluded for drinking water (less conservative; drinking water taste and odor threshold increased (ESL increased)	Drinking water
Volatile Chemicals: 1,1 biphenyl, dibromochloromethane, 1-methylnaphthalene, 2-nitrotoluene, tert butyl alcohol, 1,2,4 trichlorobenzene, 1,2,3 trichloropropane	Discontinued calculation of inhalation UIR from oral slope factor if not included in USEPA RSLs (ESLs increased)	Soil, indoor air, soil vapor

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