

TABLE 6.—HUMAN HAZARD QUOTIENT VALUES GREATER THAN ONE BY PATHWAY FOR THE SEWAGE SLUDGE LAGOON SCENARIO AT THE 95TH PERCENTILE OF THE HQ DISTRIBUTION—Continued

CASRN	Chemical	Pathway receptor	HQ
14797–55–8	Nitrate	Drinking Water from Groundwater:	
		Adult	9.2
		Child	23
14797–65–0	Nitrite	Drinking Water from Groundwater:	
		Adult	14
		Child	34

Nitrite had HQs greater than one in both the agricultural land application and sewage sludge lagoon scenarios. Silver had HQs greater than one for the agricultural land application only. Barium, manganese, and nitrate had HQs greater than one for the sewage sludge lagoon scenario only. The only organic chemical that had an HQ greater than one was 4-chloroaniline, also in the sewage sludge lagoon scenario. Complete human health screening assessment results are available in appendix Q of the TBD (USEPA, 2003b).

B. Results of Ecological Screening Assessment

The ecological screen was performed by either comparing environmental concentrations to which the ecological species are exposed to comparable ambient media benchmarks for direct contact (surface water, sediment, or soil) or by comparing exposure via ingestion (food, forage, water, and incidental ingestion of soil or sediment) to comparable ingestion benchmarks. The ecological screening was performed only for the agricultural scenario, since

this was considered the higher exposure scenario. Table 7 shows the pollutants that had HQs equal to or greater than one for terrestrial wildlife via the direct contact pathways. There are no ingestion hazards for any aquatic or terrestrial wildlife species from any of the chemicals, based on the results presented in the TBD. Because there are many wildlife receptors, EPA grouped the receptors and listed only the highest HQ for each receptor group in Table 7. See appendix R of the TBD for a complete listing of HQs for each receptor group.

TABLE 7.—HAZARD QUOTIENT VALUES EQUAL TO OR GREATER THAN ONE FOR AQUATIC AND TERRESTRIAL WILDLIFE VIA DIRECT CONTACT PATHWAYS FOR THE 95TH PERCENTILE OF THE HQ DISTRIBUTION

CASRN	Chemical	Receptor ¹	HQ
67–64–1	Acetone	Sediment Biota	356.2
120–12–7	Anthracene	Sediment Biota	2.9
7440–39–3	Barium	Aquatic Community	235.7
7440–41–7	Beryllium	Aquatic Community	7.8
75–15–0	Carbon disulfide	Sediment Biota	1.9
106–47–8	4-Chloroaniline	Aquatic Invertebrates	1.3
333–41–5	Diazinon	Sediment Biota	1.1
206–44–0	Fluoranthene	Aquatic Community	10.7
		Sediment Biota	4.2
7439–96–5	Manganese	Aquatic Community	13.9
78–93–3	Methyl Ethyl Ketone	Sediment Biota	5.8
108–95–2	Phenol	Sediment Biota	102.4
129–00–0	Pyrene	Aquatic Community	41.9
		Sediment Biota	21.1
		Soil Biota	4.5
7440–22–4	Silver	Aquatic Community	246.6
		Aquatic Invertebrates	28.2
		Fish	4.8

¹ Sediment biota organisms include sediment invertebrates; aquatic community organisms include fish, aquatic invertebrates, aquatic plants, and amphibians; soil biota organisms include soil invertebrates.

Values presented in Table 7 are at the 95th exposure percentile of the HQ distribution for direct contact. The screening showed that thirteen pollutants had HQs greater than one via direct contact with surface water, sediment, or soil. These consisted of four metals and nine organic pollutants. These results indicate that a more refined risk assessment and risk characterization are warranted. Full results for all pollutants and receptors

assessed are presented in appendix R of the TBD (EPA, 2003b).

C. Summary

The results of the hazard screening assessment contained in this section identify those pollutants which EPA is considering for rulemaking under section 405(d). These results also indicate which exposure pathway or pathways should be the focus of further consideration with respect to these pollutants. EPA has identified 15 pollutants in its review under section

405(d)(2)(C). The results of EPA's review do not mean that EPA has concluded that these pollutants in sewage sludge adversely affect human health or the environment. The magnitude of the hazard indices discussed previously do not indicate the absolute risk for a pollutant/pathway. The results of EPA's review mean that EPA will obtain updated concentration data and conduct a refined risk assessment using the data to determine whether to propose amendments to part