MDNR Appendix F - Section Specific Comment 128:

Comment:

Table 4-4, Chemical Carcinogenic Slope Factors, page 8 - The inhalation unit risk (URi) for arsenic should be 4.3E-3 (ug/m3)-1, and the dermal slope factor should equal the oral slope factor (SFo) of 1.5E+0 (mg/kg-d)-1, given EPA guidance Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment), OSWER 9285.7-02, July 2004, does not recommend adjustment of arsenic's SFo toxicity value for the dermal pathway. In addition to modification of the toxicity values, the URi, not the SFi, should be utilized. This indicates that the most recent EPA guidance Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part F, Supplemental Guidance for Inhalation Risk Assessment) Final, OSWER 9285.7-82, January 2009 (RAGS Part F), is not being utilized in the exposure assessment of BRA. Refer to RAGS Part F for information on how to assess risk for the inhalation pathway for non-radionuclide. This comment applies to both cancer and non-cancer assessments.

Discussion:

Table 4-4 has been revised to list the latest information published in EPA's Web calculator.

Proposed Text Change:

Sections 4.2.3.2 and 4.2.3.3 have been revised and now read:

"4.2.3.2 Carcinogenic Chemicals

Updated oral slope factors and inhalation unit risks for chemicals of concern are listed Table 4-4.

Table 4-4 Carcinogenic Chemical Slope Factors

Chemical	CAS	Oral Slope Factor [a] (kg-day/mg)	Inhalation Unit Risk [a] ($m^3/\mu g$)
Aroclor-1254	011097-69-1	2.0×10^{00}	5.71×10^{-04}
Arsenic, Inorganic	007440-38-2	1.50×10^{00}	4.30×10^{-03}
Chromium (VI)	018540-29-9	5.00×10^{-01}	8.40×10^{-02}
Lead and Compounds	007439-92-1	ND [b]	ND [b]

[a] http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/Generic_Tables/, February 21, 2011.

[b] ND signifies that data were not defined. EPA uses modeled blood concentrations to evaluate potential health effects from lead exposures.

4.2.3.3 Non-Carcinogenic Chemicals

Information about health effects from chronic exposures to chemicals has changed since publication of the BRA in 2000. The latest information is publicly available at http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm. On February 21, 2011, updated values for chemical toxicity were retrieved from this site. Those values are reproduced in Table 4-5.

Table 4-5 Non-Carcinogenic Reference Quantities

Chemical	CAS	Chronic Oral Reference Dose [a] (mg/kg-day)	Chronic Inhalation Reference Concentration [a] (mg/m^3)
Aroclor-1254	011097-69-1	$2.00x10^{-05}$	-
Arsenic, Inorganic	007440-38-2	$3.00x10^{-04}$	$1.50x10^{-05}$
Chromium (VI)	018540-29-9	$3.00x10^{-03}$	$1.00x10^{-04}$
Lead and Compounds	007439-92-1	ND [b]	ND [b]

[a] http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/Generic_Tables/, February 21, 2011.

[b] ND signifies that data were not defined. EPA uses modeled blood concentrations to evaluate potential health effects from lead exposures. "

EPA FEEDBACK:

EPA accepts this response and the proposed text changes.