(1) Where n-hexane is quantitatively analyzed for as an individual chemical, use cyclohexane as the toxicity surrogate for the aliphatic EC 5 to EC 8 fraction, and assess n-hexane based on its own toxicity; if n-hexane is not quantitatively analyzed for as an individual chemical, use n-hexane toxicity as the toxicity surrogate for the entire fraction.

(2) The Total Petroleum Hydrocarbon Criteria Working Group (TPHCWG) and EPA/NCEA PPRTV Derivation Support Document for Total Petroleum Hydrocarbons (SRC SF 01-031/10-16-2002). The oral reference dose (RfD) for the aliphatic fractions > EC 8 to EC 16 is based on TPHCWG's analysis of a mixture of alkanes and JP-8 fuel, plus a safety factor of 3 as recommended by NCEA/EPA. The inhalation RfD is based on the ATSDR chronic inhalation minimum risk level (MRL), as recommended by NCEA/EPA.

(3) Not Applicable due to non-volatility

(4) TPHCWG recommendation based on feeding studies of white mineral oils and EPA/NCEA PPRTV Derivation Support Document for Total Petroleum Hydrocarbons (SRC SF 01-031/10-16-2002).

(5) BTEX: **B**enzene; **T**oluene; **E**thylbenzene; **X**ylene(s); IRIS: **I**ntegrated **R**isk **I**nformation **S**ystem developed by U.S Environmental Protection Agency

(6) The inhalation RfD for 1, 1 - biphenyl is a direct extrapolation from the oral RfD.

(7) Derivation of inhalation RfDs from inhalation reference concentrations (RfCs) are based on the following: RfDi mg/(kg-day) = RfC (mg/m^3) X 20 m^3/ day X 1/ 70 kg, where 20 m3/day is the assumed adult inhalation rate, and 70 kg is the assumed adult body weight

(8) 2-Methylnaphthalene is included in the aromatic >EC 10 to EC 12 fraction when evaluating its hazards from inhalation exposure. 2-Methylnaphthalene does not have an inhalation RfD because STSC does not recommend route to route extrapolation from the oral RfD for this chemical. Use the oral RfD (0.004 mg/kg-day) for 2-methylnaphthalene when evaluating its hazards from the oral route of exposure, and subtract it from the aromatic >EC 10 to EC 12 fraction.

* The information provided in this table is for TPH-related chemicals with reference doses. As has been the case in the past, TPH-related chemicals with cancer potency factors only, or cancer potency factors in addition to reference doses, must be evaluated independently for purposes of estimating risks and calculating cleanup levels. In addition to benzene, these may include the following chemicals, if required to be analyzed, pursuant to Table 830-1 in MTCA: 1,2-dibromoethane, 1,2-dichloroethane, carcinogenic PAHs and PCBs. In addition, lead, which has neither a reference dose nor a cancer potency factor, must be evaluated based on prevention of unacceptable blood lead levels, when it is a potential contaminant at TPH sites.