

- speciated and fractionated Total Petroleum Hydrocarbon (TPH) using the TPH Criteria Working Group (TPHCWG) approach.

TPH covers a wide range of different compounds and consequently, two identical TPH results could represent two quite different mixtures of contaminants. The publication of the Environment Agency TPH document gives guidance on assessing the health risks from petroleum hydrocarbons in soil. After a review of the different TPH assessment methodologies by the Environment Agency, it was deemed appropriate to adopt the approach developed by the TPHCWG, as modified by the American Petroleum Institute (API) to include heavier fractions. The TPHCWG approach is considered most appropriate because it considers 13 fractions, thus enabling detailed modelling of the potential for human exposure from transport properties. Therefore, this approach has been adopted for the purpose of the derivation of Atkins SSVs.

The Environment Agency TPH publication also suggests that indicator compounds (such as benzene, ethylbenzene, toluene, xylenes and PAHs) should be assessed when considering TPH mixtures. Individual Atkins SSVs have been developed for the majority of these compounds.

The SSVs have been designed to incorporate a high level of conservatism and to flag up when further DQRA is required. They do not necessarily meet the tests in Table B of the Statutory Guidance (DETR Circular 02/2000) for 'significant possibility of significant harm' and are therefore not suitable for determining a site as 'contaminated land' without further evaluation.