

PROTOCOL

Contaminant Migration Remedial Goal Options

Introduction

This protocol, developed in order to support the Savannah River Site environmental remediation program, provides instructions for the identification of contaminant migration remedial goal options (CM RGOs). The starting point for this protocol is with the list of *preliminary* contaminant migration constituents of concern (CM COCs) developed in the fate and transport analysis using an appropriate fate and transport model to determine the expected groundwater concentration over time.

Details

First, perform an uncertainty analysis in order to evaluate such factors as the CSM, probable conditions, frequency of detection, site history, and data quality for each *preliminary* CM COC. Consider whether the amount of uncertainty in the analysis is too large to warrant retention of the COC. If the COC is not to be retained, provide a detailed discussion in the uncertainty section of the RFI/RI/BRA. Those COCs, which are retained, are placed on a *refined* list of CM COCs.

Next, remedial action objectives (RAOs) will be developed for the unit. The appropriate RGOs will be developed for refined CM COCs remaining after the uncertainty analysis.

In order to back-calculate the RGOs, perform the next two steps, in order, as needed.

1. For constituents with MCLs, back calculate CM RGOs by determining the soil concentration, which would be, needed in order to prevent any exceedences of the water MCL. This concentration becomes the RGO. If there is not an MCL, go to the next step.
2. Back calculate the soil concentration which would be needed in order to provide protection of groundwater to the following cancer risk levels - 1E-4, 1E-5, and 1E-6 for carcinogens and hazard quotients of 0.1, 1, and 3 for non-carcinogens.