

**ARCHIVE:** Archived to revise and clarify the guidance within the document (technical content remains accurate). Refer to VA30007.07.001 for the updated document.

**TITLE:** Use Of Appropriate Infiltration Rate In SESOIL Modeling

**DATE**

**EFFECTIVE:** 1997

**KEYWORDS:** Infiltration; infiltration Rate; SESOIL; fate and transport model; modeling; recharge rate;

**RULES:** VAP rule citations related to this issue: OAC 3745-300-10 (requires an applicable standard for the leaching pathway to ground water); OAC 3745-300-09 (contains data requirements and acceptable mathematical models for assessing the leaching pathway)

**QUESTION:** What is an appropriate infiltration rate to use when conducting SESOIL modeling for a VAP property?

**ANSWER:** Unless, an appropriate engineering control (e.g. a cap) is invoked, SESOIL modeling should be performed using a recharge rate specific to the climate. SESOIL infiltration rates should **not** be based on reduced infiltration due to the presence of any type of cover which is not otherwise identified as an engineering control and covered under an Operations and Maintenance (O&M) plan and agreement. Therefore, if the Certified Professional (CP) should invoke an engineering control and prepare an Operation and Maintenance plan before utilizing a reduced infiltration rate for SESOIL modeling. If an engineering control, such as a cap, is invoked, the infiltration rate should take into account the specific engineering control employed and appropriate documentation of how the infiltration rate was determined should be included with the NFA submittal.

**SUMMARY:** Unless an engineering control, such as a cap of some form, was invoked, the SESOIL modeling must be performed using a recharge/infiltration rate specific to the climate of the area. If the CP or volunteer invokes an appropriate engineering control that is covered under an O&M plan, then a reduced infiltration rate may be used provided that appropriate supporting documentation regarding the determination of the recharge rate used is included in the NFA documentation.

**OHIO EPA**  
**CONTACT:**

For any questions concerning this issue, please contact the VAP central office at (614) 644-2924.