

## **A Navy Case Study: Vapor Intrusion Post-Mitigation**

*Dan Waddill, NAVFAC Atlantic*

757-322-4983, [dan.waddill@navy.mil](mailto:dan.waddill@navy.mil)

An off-site vapor intrusion investigation was conducted in a residential area adjacent to a Navy site based on results of a soil gas survey at the Navy property line. This fence-line soil gas survey was conducted following identification of volatile organic compounds (VOCs) in soil and groundwater, five-year operation and then shut down of an on-site soil vapor extraction system. An off-site phased vapor intrusion investigation was conducted with soil gas sampling in neighborhood right-of-ways followed by sub-slab soil gas, indoor air, and outdoor air sampling of residence overlying the identified vapor plume. Mitigation systems were installed in homes with concentrations of VOCs in indoor air above state screening criteria. Mitigation consisted of the installation of portable activated carbon air purifying unit (APU) in basements and sub-slab depressurization systems. With less than expected reductions of VOCs in indoor air in some homes based on post-mitigation sampling results, the Navy has conducted additional post-mitigation sampling and is considering contributing factors to system performance and options for system adjustments as the Navy works to continue to improve the indoor air quality of affected homes. The Navy continues to work in partnership with regulatory agencies throughout the vapor intrusion investigation and mitigation process.