RAO Bulletin Update Vet Toxic Exposure to TCE:

As early as WWII, United States Air Force and other Military bases used and disposed of chemical degreasers and other toxic substances that were later determined to contaminate drinking water and pose multiple health risks including: Cancers, Reproductive disorders, Birth defects, and Multiple other serious difficulties. Countless military personnel, their families, and private individuals living and working in the near vicinity of the bases may have been affected by these contaminates, through drinking water, general water usage and exposure through vapor seepage. The four most alarming contaminants are: Trichloroethylene (TCE), Tetrachloroethylene (PCE), Vinyl Chloride, and Benzene. Scientific studies show that some or all of these chemical compounds have breached the ground water supply on several of our US Military Bases and in some instances, have affected civilian properties adjacent to the bases including churches, schools and private wells. Currently, on-going research is being conducted on military bases around the country and on properties directly adjacent to these bases to identify just how wide spread this contamination may be.

Norton Air Force Base (AFB), an inactive military base, encompasses over 2,000 acres of land in San Bernardino County, California. Norton AFB is situated between the San Gabriel Mountains on the northwest and the San Bernardino mountains on the northeast, with the Santa Ana River on its southern boundary. The installation, which opened in 1942, was used as an Army and Army Air Corps supply facility and housed numerous tenant organizations. The base closed in March 1994. The facility was placed on the U.S. Environmental Protection Agency (EPA) National Priorities List (NPL) in 1987 because of contamination detected in the base groundwater and soils. Contaminants of potential concern at this site include trichloroethylene (TCE), tetrachloroethylene (PCE), 1,2-dichloroethylene (DCE), polychlorinated biphenyls (PCBs), various radionuclides, and metals, including arsenic.

Community members have expressed concern about potential health effects associated with site contaminants in groundwater and soils. In response, the Agency for Toxic Substances and Disease Registry (ATSDR) conducted an initial site visit in May 1995. At that time, no immediate public health hazards were identified; however, additional data were needed to fully evaluate groundwater and soil contamination. ATSDR revisited Norton AFB in May 1997 to confirm that no immediate hazards to public health exist and further evaluate community health concerns. ATSDR reviewed and evaluated groundwater data. TCE was detected in groundwater beneath Norton AFB and the nearby vicinity. Routine monitoring of the base drinking water wells, private wells in the area, and the nearby public water wells indicate that the water meets EPA's drinking water standards. In addition, Norton has active groundwater cleanup systems in place to treat the contaminated water. To ensure continued delivery of safe drinking water off site, Norton AFB has agreed to supply off-site drinking water should it become necessary in the future. For these reasons, ATSDR concludes that TCE groundwater contamination from Norton AFB does not pose a threat to public health.

Seemingly elevated radionuclide readings in several public supply wells and documentation of radionuclide usage and storage at Norton AFB led to a comprehensive radionuclide investigation of Norton AFB and the surrounding area. Groundwater and soil investigations were conducted at Norton AFB to identify radionuclides of potential concern and quantify background concentrations on base. No radionuclide constituents were detected in soils at levels that pose a public health hazard. All radionuclides detected in the drinking water wells on base and Riverside drinking water wells were determined to be naturally occurring. Radionuclides in base drinking water wells were not detected at levels above EPA's drinking water standard (except for one sample). Although the city of Riverside drinking water wells located downgradient from Norton AFB have naturally occurring radionuclide levels above the MCL, affected groundwater is blended with water from non-impacted wells to reduce contaminant levels and meet drinking water standards. For these reasons, ATSDR concludes that radiological contaminants detected in soils,

Norton AFB drinking water wells, and Riverside drinking water wells downgradient from Norton AFB do not pose an apparent health hazard.

ATSDR also reviewed on-site soil and soil gas data. Twenty-two installation restoration program (IRP) sites and 73 areas of concern (AOCs) were targeted as suspect areas for chemical use and/or waste disposal activities on base. Contaminants in on-site soils were either detected at levels that do not pose a public health hazard; were inaccessible because of their depth below the ground's surface; or located where exposure was infrequent or unlikely. Based on the available data, ATSDR concludes that no public health hazards are associated with exposure to soil or soil gas contamination on base (see Table 1, Public Health Evaluation column). For additional info refer to http://www.atsdr.cdc.gov/hac/pha/pha.asp?docid=57&pg=0.

[Source: http://www.militarycontamination.com Jul 2011 ++]