



Mr. Thomas A. Townsend

23 January 2003

Commanding General
ATTN: Mr. Scott Brewer P.E.,
Director, Environmental Management Division
Marine Corps Base
PSC Box 2004
Camp Lejeune, N.C. 28542-0004

SUBJ: Using Water-Distribution System Modeling to Assist
Epidemiologic Investigations
Ref: (a) Major Townsend letter to CG, MCB of 30 December 2002

Dear Mr. Brewer,

Reference (a) passed on and made reference to an abstract of a presentation made at a 1998 GIS conference relating to the use of new technology and techniques in historical restoration of contamination events.

The letter suggested that the USMC and LANTRM consider utilization of the GIS and air/ground computer modeling to explore possible associations between exposure to VOC contaminants in the CLNC water supply system and the incidence of demonstrated adverse health effects in base residents of the 1968-1985 period.

Since that letter was written I have received considerable additional technical data from ATSDR as to the process and findings of a large scale study (Dover Township Area, New Jersey) that included assessments of the potential for exposure to specific drinking water resources. Attached hereto as enclosures are three documents that provide additional information on this

tested and peer-reviewed technique and a synopsis of the mass of additional materials already published by ATSDR in this field and readily available at this time.

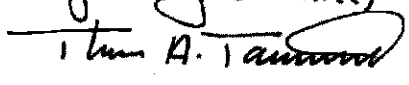
Reference (c) also raised several questions of EMI as to whether historical reconstruction of the water distribution system of the Hadnot Point WTP and air/water modeling techniques were ever considered or employed in the Installation Restoration Program at Camp Lejeune. These questions remain unanswered and a response would be appreciated.

This writer considers the remediation and mitigation efforts undertaken under the NACIP/IR programs at CLWC to be the traditional remediation and mitigation techniques used at all NPL sites: removal of contaminated materials and replacement by uncontaminated materials; closure of known contaminated areas, especially ground water wells, and the containment of contaminated surface sites by fencing or capping - among other techniques.

None of these treat the human component that was exposed to the contamination prior to this antisepitic re-arrangement of the community. This is where my interest lies.

I would hope HSMC, LAUTDIV and MCB would consider adding these investigative procedures to their tool boxes thus bringing the human element into the remedial process.

cc: RADM. R.C. Williams, USPHS (ATSDR)
LAUTDIV (P.M. Smith)
BGEU. R.S. Coleman USMC (Code II)

Respectfully Submitted,

MAJOR, USMC (Retired)

Enclosures: (3)

CLW