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From: Naval Inspector General
To: Secretary of the Navy

Subj: REVIEW OF OVERSEAS DRINKING WATER (ODW) STUDIES

Ref: (a) NAVINSGEN Overseas Drinking Water Special Study II of January 2009
(b) VADM Caldwell Info Memo Ser N00/0232 of 6 Mar 14
(c) NAVINSGEN Summary Report Overseas Drinking Water of January 2009

1. This letter forwards my follow-up assessment of reference (a). Per reference (b), I conducted an assessment to clarify technical questions and provide context to the findings in reference (a) [hereafter referred to as the 2013 ODW study]. In addition to the materials and evidence presented in references (a) and (c), this assessment was informed by a series of stakeholder meetings held in 2014, a review of updated instructions and reports, as well as NAVINSGEN site visits to Diego Garcia in December 2014 and Naples, Italy in February-March 2015.

2. In reference (c) [hereafter referred to as the 2009 ODW study] NAVINSGEN identified significant problems with overseas potable water systems related to operations, training and certification, maintenance and oversight, and recommended changes to authorities and responsibilities. As identified in the 2013 ODW study, the Navy was slow to implement these recommendations before 2013, resulting in latent vulnerabilities in ODW systems. While the 2013 ODW study clearly stimulated critical improvements, some of the conclusions required further clarification. Specifically, the authors of the 2013 ODW study referenced historical Camp Lejeune water issues and possible perceptions of public health risk in order to sensitize Navy leaders to derived implications of the status quo--not as information to support technical conclusions. Today, the key stakeholders are moving the ODW system in a positive direction, as evidenced by enhanced training and certification, more robust instructions and operating procedures, improved technical guidance, and oversight.

Although the Navy elected not to pursue a primacy model for oversight, along the lines of domestic Environmental Protection Agency (EPA) standards, Commander, Navy Installations Command (CNIC), working in concert with the Bureau of Medicine and Surgery (BUMED) and the Naval Facilities Engineering Command (NAVFAC) has completed or is implementing most of the recommended actions outlined in the 2009 and 2013 ODW studies.

3. Background

a. In the 2009 ODW study, NAVINSGEN attributed the wide variance in the quality and safety of potable water being delivered overseas to a lack of oversight and accountability. Consequently, the Secretary of the Navy (SECNAV) issued a memorandum that stated an imperative for Navy personnel to receive the same quality of drinking water at overseas installations as they do in the United States. The Chief of Naval Operations (CNO) tasked CNIC and NAVFAC to establish metrics and procedures to ensure ODW systems meet or exceed U.S. water quality standards.

b. In the 2013 ODW study, NAVINSGEN found that the Navy was slow and ineffective in resolving long-term deficiencies in ODW systems. The report was highly critical and concluded that the management framework was flawed. To separate operations from oversight and better prioritize public health, NAVINSGEN strongly recommended a Navy primacy model, similar to a domestic EPA construct, for oversight and enforcement.

c. In September 2013, challenging the 2013 ODW study in a letter to the Assistant Secretary of the Navy (Energy, Installations and Environment) (ASN (EI&E)), CNIC stated that the report contained factual errors and reached unsubstantiated conclusions. In the letter, CNIC strongly disagreed with NAVINSGEN's comparisons of drinking water issues at Camp Lejeune and Naval Air Station (NAS) Sigonella. USMC representatives also signaled concern with NAVINSGEN's comparisons to Camp Lejeune vis-à-vis ongoing litigation.

d. Per reference (b), I reviewed the 2013 ODW study findings with key stakeholders. In 2014, members of the NAVINSGEN team and I met with representatives from CNIC, NAVFAC, BUMED, and ASN (EI&E) to discuss the report, and identify actions planned or taken and the status of resolving long-term deficiencies.

Furthermore, I reviewed instructions, policies, previous reports, and led inspections of two overseas sites concurrent to planned NAVINSGEN area visits.

4. Summary of Findings and Observations

a. Overall, the 2013 ODW study correctly identified ODW system weaknesses and the slow response in implementing SECNAV's and CNO's direction regarding quality standards for ODW. The observation that ODW systems were not managed to the same standards as domestic Navy water systems was a central theme in the 2013 ODW study. Until late 2012, CNIC, NAVFAC and BUMED took little action in response to the 2009 ODW study.

b. In the 2013 ODW study, NAVINSGEN analyzed ODW systems against Safe Drinking Water Act (SDWA) standards. The SDWA is a set of domestic EPA standards that represent a complementary systems approach to design, operations, procedures, training, certification and oversight. ODW enterprise stakeholders viewed the Overseas Environmental Baseline Guidance Document (OEBGD) and Final Governing Standards (FGS) as applicable standards. Based on SECNAV and CNO guidance (paragraph 3.a above), NAVINSGEN inferred that SDWA standards were appropriate, and accordingly took a highly critical view of the Navy's ODW system of complementary physical and process barriers.

c. The 2013 NAVINSGEN report should have avoided references to Camp Lejeune. With respect to the Camp Lejeune comparison, the following is provided for context:

(1) NAVINSGEN did not set out to inspect or investigate water issues at Camp Lejeune.

(2) NAVINSGEN did not visit Camp Lejeune as part of the 2013 study.

(3) During the 2013 ODW study, NAVINSGEN team members had discussions with former Camp Lejeune residents and people who were knowledgeable about the historic water issues.

(4) Comparisons to Camp Lejeune were not based on drinking water contaminants, recorded concentrations, or any scientific measurements.

(5) The NAVINSGEN 2013 ODW study referenced historical Camp Lejeune water issues and possible perceptions of public health risk in order to sensitize Navy leaders to derived implications of the status quo.

d. The Navy implemented nearly all the recommendations from the 2009 ODW study since the release of the 2013 ODW study.

e. The Navy elected not to implement a the specific primacy framework or an approach giving ASN (EI&E) enforcement authority, as recommended in the 2013 ODW study. Instead, CNIC implemented a three tiered oversight and enforcement structure with CNIC as the Executive Agent and the CNIC N4 as Chair of the Water Quality Oversight Council (WQOC).

f. Vulnerabilities remain in the ODW program that require stakeholder focus. Specifically:

(1) As the program elements transition from implementation to execution, follow on evaluation will be required to validate effectiveness.

(2) Many recurring "significant deficiencies" from ODW sanitary surveys still require correction. Some systems have uncorrected deficiencies that were identified years ago.

(3) Management and oversight the ODW system remain at CNIC headquarters with their designation as the Executive Agent for ODW, and the assignment of the CNIC (N4) as Chair of the WQOC - the governing body, reporting on a regular basis to the EA. A key component of primacy is the separation of oversight from management and operations. Sensitivity to this and ensuring public health risks are properly considered will be crucial going forward.

(4) More work is required to ensure quality assurance of laboratories supporting ODW sampling.

(5) The Navy still has challenges in attaining "source to tap" cognizance where the source originates outside the installation perimeter.

5. Recommendations

a. Robust and effective sanitary surveys are key to ODW quality assurance. CNIC should prioritize the correction of sanitary survey significant deficiencies and track significant deficiencies with planned corrective actions in a manner visible to senior stakeholders (OPNAV N4 and ASN (EI&E)). Of note: compared to the previous year, CNIC more comprehensively addressed outstanding significant deficiencies in the fiscal year 2104 report.

b. ASN (EI&E) should assess the role of BUMED and the Navy-Marine Corps Public Health Center (NMCPHC) in the three tiered oversight structure to ensure that public health concerns are fully addressed.

c. CNIC annual reports to the Vice Chief of Naval Operations (VCNO) and Consumer Confidence Reports should include all instances of utilizing water "not fit for human consumption" or the use of Public Health Risk Assessments. These events should be infrequent and unusual, and warrant a high degree of visibility among decision makers and Navy leaders.

d. CNIC, with the assistance of BUMED and NAVFAC, should issue laboratory assurance requirements to ensure water samples are performed by accredited laboratories.

e. NAVFAC and CNIC should implement the use of templates and procedures for service contracts and leases to ensure consistent quality potable water is provided to Navy personnel independent of procurement methodology. Once these templates are available, track and update all contracts and leases pertaining to ODW. Consider tracking this in CNIC's annual reports.

6. NAVINSGEN Planned Actions

a. During the Command Inspection of CNIC (scheduled for May 2015), NAVINSGEN will assess CNIC and subordinate command compliance with ODW program requirements (CNIC Series 5090) with a focus on audits, reporting, and oversight execution.

b. During the Command Inspection of BUMED (scheduled for July 2015), NAVINSGEN will assess compliance with and support of ODW requirements.

c. NAVINSGEN will visit overseas installations throughout the next two years to assess implementation and execution of ODW program requirements. Based on prior deficiencies, Sigonella will be visited within 6-9 months.

d. NAVINSGEN will evaluate opportunities to monitor WQOC and other oversight events.

7. This report closes out further review of the 2013 ODW study per reference (b)

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