DEPARTMENT OF THE NAVY
COMMANDER NAVY INSTALLATIONS COMMAND
716 SICARD STREET SE SUITE 100
WASHINGTON NAVY YARD DC 20374-5140

CNICINST 5090.6
N4
21 Aug 2020

CNIC INSTRUCTION 5090.6

From: Commander, Navy Installations Command

Subj: NAVY SAMPLING AND TESTING FOR LEAD IN DRINKING WATER IN PRIORITY AREAS

Ref: (a) OPNAVINST 5090.1E
(b) CNIC WASHINGTON DC ltr 5090 Ser N4/17U082 of 6 Jun 17
(c) 42 U.S.C. § 300f-300j
(d) EPA 815-B-18-007, Training, Testing and Taking Action for Reducing Lead in Drinking Water in Schools and Child Care Facilities Revised Manual of Oct 2018
(e) Unified Facilities Guide Specifications 22-00-00 of 1 Nov 2015

Encl: (1) List of Internal and External Stakeholders
(2) Drinking Water Sampling for Lead Procedures and Timeline
(3) Sample Identification Format
(4) Secured Outlet Sign
(5) Sampling Strategy Flowchart
(6) Pipe Volume Table

1. Purpose. To issue policy, responsibilities and procedures for implementing requirements to conduct testing for lead in drinking water per reference (a). This instruction supersedes interim guidance issued by Commander, Navy Installation Command (CNIC) in reference (b).

2. Scope and Applicability. This instruction applies to CNIC headquarter (HQ) and Navy regions, installations, tenant activities, facilities, and components that meet the definition of a priority area in reference (a). Priority areas are defined as primary and secondary schools (i.e., Child Development Centers (CDC), School Age Care programs (SAC), Navy-operated 24/7 group homes and youth program facilities). This instruction does not extend to on- or off-base residences (e.g., Child Development Homes or Family Child Care Homes) used for childcare purposes under Navy's Child Development Home program, or schools that are not owned or managed by the Navy or the Department of Defense.

3. Action. The testing protocols of this instruction are pursuant to reference (a), exceed Safe Drinking Water requirements in reference (c) and U.S. Environmental Protection Agency (EPA) Lead and Copper Rule regulations, and are based on technical, not regulatory, guidance published by the EPA in reference (d).

a. Testing Frequency

(1) Per reference (a), testing is required at least every five years for all drinking water coolers and outlets in priority areas to determine the presence of lead.

(2) Per reference (a), testing is required for new construction and plumbing modifications of priority areas prior to occupancy to determine the presence of lead. Requirements on new construction and modifications are outlined further in paragraphs 3.j. and 3.k.

b. Communication Plan

(1) The goal of communication plans is to inform stakeholders of the proactive steps and sampling plan being conducted by the Shore Enterprise to test drinking water at all Navy priority areas and share the results with stakeholders and interested parties.

(2) Before conducting sampling, installations will have a risk communication plan prepared and coordinated with internal stakeholders and interested parties.

(3) Enclosure (2) provides an example schedule of drinking water sampling for lead that will help with coordination steps. The schedule in enclosure (2) includes three major tasks: preparation, sampling and corrective action. Each major task will include notification and coordination with all stakeholders and interested parties.

(4) The "Staff, Parent and Caregiver Sampling Program Announcement Letter" (paragraph 7.c.(1)) must be issued prior to sampling in order to notify staff and parents. Minor modifications can be made to customize the letter as appropriate, however, all notification letters must be reviewed and approved by the Navy Marine Corps Public Health Center (NMCPHC) prior to issuance. With concurrence from the installation Preventive Medicine Authority (PMA), the letter will be signed by the installation commanding officer and distributed to the parents, staff, and the installation and region public affairs officers (PAO).

c. Sampling Plan

(1) Walkthrough and Facility Interview. Installations will schedule a meeting with facilities directors and conduct walkthroughs of priority areas to identify sampling locations. Use the Facility Interview Form (paragraph 7.a.) to obtain the following information:

(a) Time Facility Closes. Outlets should be secured after the facility closes the day before sampling. Water should not be used for 8-18 hours prior to sampling. The 8-18 hour holding time is not applicable to 24/7 facilities. At 24/7 facilities, the sample will be collected during the period of lowest projected use.

(b) Time Facility Opens. Facility staff may need to adjust their schedules and report earlier to ensure sampling is completed before parents and children arrive and before any water is used (including toilets and outlets that are not sampling locations). 24/7 facilities should be sampled early in the morning, as the lowest use patterns are typically overnight.

(c) Building Manager Point of Contact. In the event testing results are above the recommended screening level of 15 parts per billion (ppb), coordination with the building manager is required to clean aerators and to perform any other required corrective actions. Because resampling of the affected outlets is expected immediately, it is important to have the building manager contact information beforehand.

(d) Facility Floor Plan. Request a facility floor plan. If possible, use the floor plan and location identifications (ID) from previous Lead in Drinking Water in Priority Areas (LIPA) surveys. If no floor plan is available, verify if the building has an Emergency Evacuation Plan that can be used. Otherwise, develop a floor plan to identify each outlet location.

(e) Inventory of sampling locations. Outlets in priority areas required for sampling are defined in reference (a), which include:

1. Drinking fountains, both bubbler and water-cooler style, indoor and outdoor (e.g., playgrounds, sports fields).

2. Kitchen sinks.

3. Home economic room sinks.

4. Teacher's lounge sinks.

5. Nurse's office sinks.

6. Classroom sinks.

7. Bathroom sinks.

8. Utility sinks, hose attachments, and outdoor outlets if used to fill water jugs (i.e., for sports team practice).

9. Any sink, including portable sinks, known to be or visibly used for consumption (e.g., toothbrushes, coffee maker or cups nearby).

(2) All faucets with a potential for consumptive purposes must be sampled and sampling procedures must be representative of consumption. This includes motion sensor faucets that may

be present in facilities. Do not turn off the hot water valve prior to sampling motion sensor faucets in order to collect a sample representative of typical use.

(3) Per the EPA, consumptive uses include drinking, cooking and washing (including teeth brushing). This includes utility sinks, hose attachments and outdoor outlets if used to fill water jugs, but not ice machines. Identify sampling locations using the standard nomenclature in enclosure (3). If previous LIPA surveys have already identified sampling locations using differing nomenclature, continue to use existing sampling location IDs as defined. Do not sample hot water faucets, showers and deep sinks used only for utility cleaning, as they are not to be used for drinking. All fixtures will be included in the Facility Interview Form (if not sampled, provide a reason, i.e., fixture is a hose bib not used for consumption, clearly marked). If the sample ID format is too long to be included on the sample bottle label, assign an internal ID number that corresponds to the sample ID format.

(4) Use the information gathered in the Facility Interview Form to develop the sampling plan. The sampling plan should be a robust document specific to the facility and installation that includes the appropriate requirements from the risk communication plan, sampling locations, procedures, laboratory locations, result interpretation, and any immediate or intermediate remedial measures to be taken. If a map of the facility is available (even an emergency evacuation map), it should be used to document the sampling locations and included in the sampling plan. If a prior sampling plan is available, use the existing format and add tabs to the sample location results reporting form in paragraph 7 (Example Summary Results Table), as necessary, for the recurring event. By using the same worksheet for every year of sampling, historical results for each fixture will be available in a single file for comparison purposes. Identify the planned sampling date for initial draw samples. Photographs of the individual fixtures may be useful if the location is difficult to explain or document to ensure the correct fixture is secured and corrective actions are documented.

(5) Installation sampling plans must be reviewed by the region environmental coordinator (N45) and the installation PMA, and provided to internal stakeholders prior to any sampling activity.

d. Securing Outlets Prior to Sampling

(1) Outlets should be secured 8-18 hours before the sampling occurs, following facility closure. Ensure all sample bottles and chain of custody forms are partially completed with sample ID and scheduled collection date. If practicable, place properly identified bottles by each sampling location.

(2) Post enclosure (4) on each sampling location to secure the outlet. Do not secure outlets by closing the water supply valve. Additionally, the facility may use tape and bags over the fixtures to prevent usage. For motion sensor faucets, do not place tape or bags in a manner that will trigger the faucet during the stagnation period.

(3) Ensure the cleaning crew has been instructed not to use water from outlets or toilets within eight hours of the planned sampling start time.

(4) If an aerator maintenance plan exists, coordinate the sampling as to not disturb the aerators for at least 48 hours prior to the scheduled event.

(5) Confirm the facility point of contact the day prior to the sampling event.

e. Sample Collection and Results Interpretation

(1) Do not collect samples in the morning after vacations, weekends or holidays, as the water will have remained stagnant for too long and will not represent the water used for drinking during most of the days of the week. At 24/7 facilities, the sample will be collected during the period of lowest projected use, typically early in the morning. Per EPA guidance, do not perform pre-stagnation flushing prior to collecting a sample.

(2) The sampler should induce a typical steady flow of water from the outlet and collect a first draw sample without wasting water from the fixture.

(3) Collect all water samples in wide-mouthed bottles, 250 milliliters in volume, to allow for typical flow rate.

(4) Collect all water samples before the facility opens and before any water is used. Ideally, the water should sit in the pipes unused for at least 8 hours but not more than 18 hours before a sample is taken. If the fixture has a typical stagnation (normal use pattern) of greater than 18 hours, do not perform pre-stagnation flushing prior to collecting a sample. Samples collected should be representative of normal first use. If a facility has been temporarily closed due to seasonal use or other reasons, it is recommended that the system be flushed and allowed to let stand for between 8-18 hours to simulate normal use.

(5) Per reference (d), the EPA recommends a two-step sampling process be followed for identifying lead contamination. The two-step sampling process helps to identify the actual source of lead. A sampling strategy flowchart is provided in enclosure (5).

(a) In Step 1, collect the first-draw samples to identify outlets providing water with elevated lead levels. Follow the first-draw sample with a flush sample from the tap located closest to the service connection to identify the level of the lead in the water entering the facility (i.e., at the point of entry).

(b) In Step 2, take follow-up flush samples only from outlets identified as problem locations to determine the level of lead in water that has been stagnant in upstream plumbing, but not in the outlet fixture.

(6) The recommended sampling protocol for each type of outlet can be found in reference (d). There are two recommended deviations from this protocol.

(a) For Step 1, the Navy does not require collecting a point of entry or initial service location sample. A facility can collect this sample if data is not available from the facility's Lead and Copper Rule sampling requirements or from prior year samples. The sampling location will be the first fixture in the building from the service connection point.

(b) For Step 2, if sample results from the first round are greater than 15 ppb, the aerators on affected faucets must be cleaned and the faucet resampled to include a first draw and flush sample. The first draw and flush samples will be collected per the recommendations in reference (d). The inclusion of a Step 2 first draw sample will help identify if the faucet itself is the source of lead, or if particulates are being trapped within the aerator. If the first draw sample result from Step 2 is below the screening level, an aerator maintenance program must be implemented. Further detail on the aerator maintenance program is outlined in paragraph 3.g.(2)(h). Aerator cleaning is considered a short-term corrective action. If repeat samples determine that the issue is not the aerator, other permanent corrective actions must be implemented as described in paragraph 3.g. Motion sensor faucet samples will be collected in the same manner as a typical standard faucet type. Note: Do not turn off the hot water valve, as blended water represents the typical use.

(7) Record all results in the Sample Summary Results Table provided in paragraph 7.

(8) For results greater than 15 ppb, identify the source of lead based on interpretation of results for each type of fixture in reference (d) to allow corrective actions to be implemented. The most common sources of lead in drinking water include:

(a) Debris in aerator. This can be caused by upstream work on the plumbing system or standard degradation of plumbing materials. Replace and clean the aerator on a regular basis to address this source. Debris in aerators may also be present following unidirectional system flushing.

(b) Faucet. Brass components from faucets may contribute to lead in drinking water. Replace the faucet with an NSF 61 Annex G/NSF 372 certified product.

(c) Supply tubing, supply valves. Brass components in tubing connectors and supply valves may contribute to lead in drinking water. Replace tubing and supply valves with NSF 61 Annex G/NSF 372 certified products.

(d) System components in the plumbing upstream from outlet, e.g., soldered joints, fittings, lead pipe, meters. Lead from upstream plumbing is typically discovered in the follow-up flush sample. Follow-up flush samples will help identify the plumbing segment contributing the lead. Refer to enclosure (6) to determine the length of pipe represented by each sampling

volume. Replace affected segments of upstream plumbing with NSF 61 Annex G/NSF 372 certified products. Ensure partial replacement of lead pipes connecting to a dissimilar metal are protected from galvanic corrosion with a dielectric union.

(e) Unpassivated plumbing components. New brass plumbing components have been shown to leach elevated levels of lead immediately after installation, usually followed by a general decline in levels after repeated exposure to water. Research attributes this to drinking water contacting unpassivated brass components. Unpassivated plumbing components have not yet established a protective film (usually consisting of metal hydroxides and metal carbonates, or a layer of calcium carbonate) on interior plumbing component surfaces in contact with the drinking water. The establishment of the protective film is a process called passivation, and is achieved through repeated exposure to the drinking water. Intermittent water use patterns are known to delay passivation.

(f) Hot water. Lead will be dissolved more quickly by hot water, therefore, samples collected from blended water sources (hot and cold) may contain increased lead levels. The EPA recommends only using cold water for consumption.

f. Results Notification

(1) Coordinate all results notifications with the region N45, region counsel, Naval Medical Forces, region PAO, installation N45, installation PMA, and installation PAO. Overseas installations will also coordinate notifications through the installation and region water quality boards. Notification of results greater than 15 ppb will be reported to the installation commanding officer and forwarded, via the region N45, to CNIC N45 and Naval Facilities Engineering Command (NAVFAC) HQ environmental for awareness. The notification letter templates have been approved by the Navy environmental health risk communication subject matter experts at NMCPHC; any modification of the template language requires consultation with NMCPHC risk communication staff prior to signature and dissemination by the commanding officer.

(2) Use "Template Letter—Staff/Parental Notification (less than or equal 15 ppb)" (paragraph 7.c.(2)) to notify staff and parents of results of sampling where no exceedances occurred.

(3) Use "Template Letter—Staff/Parental Notification (above 15 ppb)" (paragraph 7.c.(3)) to notify staff and parents in the event of exceedances of the screening level.

(4) Use "Template Letter—Staff/Parental Sampling Results Overview" (paragraph 7.c.(4)) to notify staff, parents and other stakeholders via region and installation websites.

(5) In the event Congressional notification is required, use the congressional delegation (CODEL) notification template listed in paragraph 7.d. of this instruction.

g. Corrective Actions. Solutions to correct elevated lead results are typically issued on a short-term and permanent basis. Work closely with the installation Public Works Officer (PWO) to choose the corrective action appropriate for the facility.

(1) Short-term. Control measures will not be used for more than six months.

(a) Provide bottled water.

(b) Secure problem outlets.

(2) Permanent. Control measures are used to reduce or eliminate the source of lead.

(a) Replace fixture. If the source of lead is localized or limited to a few outlets, replacement may be the most practical solution. Ensure any new device installed is in compliance with current lead-free classification requirements and meets NSF 61 Annex G/NSF 372 standards. Certain brands of blended motion sensor faucets may meet the NSF 61 Annex G/NSF 372 standard; however, a standard (non-blended) faucet is recommended if the fixture is likely used for consumption.

(b) Add a point-of-use device. Point of use devices can be placed on faucets or taps, but not on fountains. Effectiveness varies and any device should meet the NSF 61 Annex G/NSF 372 standard for lead removal. If a point-of-use device is used, a plan of action must be developed that includes an operation and maintenance plan that details filter replacement frequency and funding responsibility.

(c) Check grounding wires. Verify no existing electrical wires are grounded to the water pipes. If found, replace with an alternative grounding system, as electrical current will accelerate the corrosion of lead in pipe materials.

(d) Replace lead piping. If lead pipe is discovered in the building materials, replace with lead-free service lines.

(e) Reconfigure piping. If only a small section of piping in the building contains lead, consider bypassing this section to supply water for ingestion purposes.

(f) Bottled water. If all other corrective actions are impractical, bottled water can be used as a permanent solution.

(g) Permanent outlet closure. If an outlet is not used regularly, permanent removal is a viable option.

(h) Aerator maintenance program. This corrective action can be used if the first sample drawn following aerator cleaning and replacement indicates less than or equal to 15 ppb,

and if the follow-up flush samples determine the aerator is the issue, rather than the plumbing behind the fixture. Per reference (d), the EPA allows the use of a preventive maintenance program for aerator cleaning as a corrective action. This corrective action may be used at Navy installations if the program is documented, entered into the facility preventive maintenance system (i.e., MAXIMO), and performed frequently (recommended on at least a semi-annual basis). Aerator maintenance can also be used in conjunction with any of the listed corrective actions as an additional step to decrease potential sources of lead. Aerator maintenance should also be performed in conjunction with a unidirectional flushing event, as these events may increase particulates in the system.

h. Post-Corrective Action Sampling. Re-sampling will occur after each corrective action is employed. Re-sampling and additional corrective actions must continue until results are less than or equal to 15 ppb. All corrective actions and follow-up testing must follow the procedures outlined in this instruction, including communication and record requirements.

i. Post-Corrective Action Notification Procedures

(1) Record all results in the Sample Summary Results Table listed in paragraph 7.

(2) Use "Template Letter—Staff/Parental Post-Corrective Action Notification" (paragraph 7.c.(3)) to notify staff and parents of post-corrective action results after corrective measures have been implemented and testing confirms results are less than or equal to 15 ppb. The notification letter will be signed by the installation commanding officer in coordination with the installation PMA and PAO, and pursuant to the facility's communication plan.

(3) Use "Template Letter—Staff/Parental Sampling Results Overview" (paragraph 7.c.(4)) as the sample document to summarize results and explain any corrective actions implemented for each facility tested. All results will be posted to the region-specific website and linked to the CNIC HQ Drinking Water website at https://www.cnic.navy.mil/om/base_support/environmental/water_quality.html.

j. New Facilities and Replacement Fixtures. Pursuant to reference (e), fixtures for all new facilities, repairs and replacements will be compliant with the NSF 61 Annex G/ NSF 372 standards. The Unified Facilities Guide Specifications also require that the system be flushed, and aerators and screens be cleaned following any system flushing. Aerators should be cleaned following any system repair, even when a system flush is not required. Maintain records per paragraph 5.

k. Annual Audits

(1) Installation COs will ensure an annual audit of each priority area is performed to determine if any plumbing or treatment modifications have been made. At a minimum, the annual audits must include the following steps:

(a) Facility walk-through to compare prior year sampling plan and facility map to existing conditions.

(b) Review of priority area locations with Department of Defense Education Activity and CNIC Fleet and Family Readiness (N9) representatives to determine if any new facilities have been added since the last audit or sampling.

(2) If any modifications are noted during the audit, the installation environmental staff must confirm that the replacement work conforms to subsection 330g-6 of reference (c) by reviewing all available lead free certification paperwork or other indicators identifying conformance to NSF 61 Annex G/NSF 372 standards. If proof of lead free plumbing and fixtures cannot be provided, a baseline sampling event for all modifications will be immediately scheduled.

l. Results Reporting. At the conclusion of each fiscal year, installations will provide a summary of priority facilities that have collected LIPA samples to NAVFAC HQ and CNIC N45 via the region N45. Each region should be prepared to submit a copy of the sampling results, as recorded in the Example Summary Results Table listed in paragraph 7, as well as a summary of corrective actions and any lessons learned no later than 15 November for LIPA activity in the preceding fiscal year. Also ensure the results are posted on the installation's website and accessible from the CNIC HQ Drinking Water website at https://www.cnic.navy.mil/om/base_support/environmental/water_quality.html

4. Responsibilities

a. CNIC HQ

(1) CNIC N45 will provide oversight of the implementation of this instruction. CNIC N45 will also coordinate responses to LIPA exceedances with NMCPHC and the region N45, and report all LIPA exceedances in the Annual Shore Drinking Water Report required by reference (a).

(2) CNIC PAO will coordinate with region and installation staffs to assist in preparing the communication plan and fielding specific questions that may arise during LIPA efforts. Communication to all internal and external stakeholders in enclosure (1), including the PMA, must allow sufficient planning time prior to the sampling event per enclosure (2). The installation PAO must be familiar with this instruction and be prepared to respond to media queries. Requirements for communications to each stakeholder are incorporated into each step of this instruction.

(3) CNIC N9 will maintain awareness of this policy as it applies to their facilities.

b. Region

(1) Region N45s will review and approve sampling plans with concurrence from the facility director and Naval Medical Forces.

(2) Region PAOs will:

(a) Coordinate with installation PAOs to develop initial public awareness strategies and obtain concurrence from internal stakeholders.

(b) Review notification letters prior to installation PAOs disseminating to staff and parents. Ensure the Navy Medicine PMA performs a final review of notification letters prior to issuance. Additionally, coordinate with the installation PMA to contact NMCPHC for technical or health risk support.

(c) Maintain a region-specific Public Affairs guidance document for LIPA.

c. Installation

(1) Commanding officers will:

(a) Sign and distribute letters per paragraphs 3.b.(4) and 3.f.(1) to notify staff and parents of forthcoming LIPA sampling, LIPA sampling results and any exceedances, and corrective actions implemented to address exceedances.

(b) Host informational forums for staff and parents in the case of any exceedances.

(2) Installation N45s will:

(a) Brief installation leadership and PMA on the requirements of this instruction.

(b) Coordinate with facility directors to arrange site visits to inventory water fixtures and develop a sampling plan.

(c) Coordinate with the installation PAO and PMA to inform staff and parents of this policy and provide advance notification for any sampling at installation facilities.

(d) Conduct sampling of priority fixtures identified during the site visit.

(e) Coordinate with the installation PAO and PMA to notify all stakeholders of lead results greater than 15 ppb, and secure the impacted fixtures.

(f) Conduct follow-up sampling at the source of any exceedance during initial or routine sampling and coordinate with the installation PMA to outline corrective actions for results greater than 15 ppb.

(g) Conduct post-corrective action sampling to ensure the efficacy of corrective actions taken.

(h) Train staff in lead minimization procedures.

(3) Installation PAOs will:

(a) Coordinate with the region PAO to develop the initial public awareness strategy.

(b) Notify CNIC N45 and external stakeholders of LIPA sampling, schedule, results, and communications plans.

(c) Coordinate with the Navy Medicine PMA to review and revise (if needed) the N45 drafted notification letter drafts. The Navy Medicine PMA must perform a final review of all notification letters prior to issuance.

(d) In coordination with the region PAO, finalize and execute a public awareness strategy to notify staff and parents of LIPA sampling results and any corrective actions taken using the methods identified in the communications plan.

(4) Installation PWOs will:

(a) Implement the corrective actions recommended by the installation N45 and PMA.

(b) Conduct annual facility audits to assess the drinking water system for any changes in treatment or distribution.

d. Bureau of Medicine and Surgery

(1) NMCPHC will:

(a) Review and approve notification letters sent to parents and staff in coordination with Naval Medical Forces, and the region and installation N45.

(b) Coordinate response to any LIPA exceedances with the installation PMA, Naval Medical Forces, and the region and installation N45.

(2) Naval Medical Forces (Atlantic/Pacific) will:

(a) Review and approve risk communication plans in coordination with the region PAO and NMCPHC.

(b) Review and approve sampling plans in coordination with the region N45.

(c) Coordinate response to any LIPA exceedances with NMCPHC, the installation PMA, and the region and installation N45.

(3) PMA will:

(a) Review sampling plans developed by the installation N45 and obtain approval from the regional PMA.

(b) Review and revise (if needed) the N45 drafted notification letters prior to the PAO sending to parents and staff.

(c) Review sampling data with the installation N45 and make recommendations for corrective actions based on the guidance in reference (d).

(d) Consult with NMCPHC for technical and risk communication support.

5. Records Management

a. Records created as a result of this instruction, regardless of format or media, must be maintained and dispositioned for the standard subject identification codes 1000 through 13000 series per the records disposition schedules located on the Department of the Navy/Assistant for Administration (DON/AA), Directives and Records Management Division (DRMD), at https://portal.secnav.navy.mil/orgs/DUSNM/DONAA/DRM/Records-and-Information-Management/Approved%20Record%20Schedules/Forms/AllItems.aspx.

b. Per reference (a), records of sampling and testing of drinking water in priority areas will be retained for 12 years. Records will include, but are not limited to:

(1) Sampling plan (including map).

(2) Sample results.

(3) Public notifications (all external communications).

(4) Records of corrective actions and follow-up sample results.

(5) Annual audit records.

(6) Certificates for lead-free materials (with mapped location) (new facilities and renovations).

c. Records will be kept by the installation and regional environmental staff per standard business practices, such as the Environmental Data and Metrics Website. Additionally, sample results will be posted on the regional CNIC website water quality page, which will be hyperlinked from the installation website.

d. For questions concerning the management of records related to this instruction or the records disposition schedules, contact your local records manager or the DON/AA DRMD program office.

6. Review and Effective Date. Per OPNAVINST 5215.17A, CNIC (N4) will review this instruction annually on the anniversary of its effective date to ensure applicability, currency, and consistency with Federal, Department of Defense, Secretary of the Navy, and Navy policy and statutory authority using OPNAV 5215/40, review of instruction. This instruction will be in effect for 10 years unless revised or cancelled in the interim and will be reissued by the 10-year anniversary date if it still required, unless it meets one of the exceptions in OPNAVINST 5215.17A, paragraph 9. Otherwise, if the instruction is no longer required, it will be processed for cancellation as soon as the need for cancellation is known following the guidance in OPNAV Manual 5215.1 of May 2016.

7. Forms Management. The forms listed in paragraphs 7a through 7d are available for download via the NAVFAC Water Media Field Team Portal, https://hub.navfac.navy.mil/webcenter/portal/ev/newfolder0/page12/page116?_afrLoop=65821260900556&_adf.ctrl-state=i1v7zr26q_441#! and CNIC Gateway 2.0 (G2) website at https://g2.cnic.navy.mil/tscnichq/N4/N45/Shared%20Documents/Forms/AllItems.aspx.

a. Facility Interview Form.

b. Sample Summary Results Table.

c. Example Notification Letters.

(1) Template Letter - Staff, Parent and Caregiver Sampling Program Announcement.

(2) Template Letter—Staff/Parental Notification (less than or equal 15 ppb).

(3) Template Letter—Staff/Parental Notification (above 15 ppb).

(4) Template Letter—Staff/Parental Sampling Results Overview.

(5) Template Letter—Staff/Parental Post-Corrective Action Notification.

d. CODEL Notification Template.

Y. B. LINDSEY

Releasability and distribution:
This instruction is cleared for public release and is available electronically only via Gateway 2.0 website, https://g2.cnic.navy.mil/CC/Documents/Forms/Directives%20Only.aspx

LIST OF INTERNAL AND EXTERNAL STAKEHOLDERS

INTERNAL STAKEHOLDERS
Installation • Commanding Officer • Fleet and Family Readiness Director (N9) • Environmental Programs Director (N45) • Public Works Officer (PWO) • Facilities Management Director • Preventive Medicine Authority • Public Affairs Officer • Office of General Counsel or Judge Advocate General (JAG)
Region • Commander • Fleet and Family Readiness Director (N9) • Facilities and Environmental Director (N4) • Environmental Programs Director (N45) • Naval Medical Forces (Atlantic/Pacific) • Public Affairs Officer • Office of General Counsel or Judge Advocate General (JAG)
Headquarters • Fleet and Family Readiness Director (N9) • Facilities and Environmental Director (N4) • Environmental Programs Director (N45) • Energy and Base Operating Support Director (N42) • Public Affairs Officer • Office of General Counsel or Judge Advocate General (JAG) • Navy and Marine Corps Public Health Center
Other Interested Parties • Department of Defense Education Activity (Installation, Region and HQ) • NAVFAC HQ Environmental Business Line • Assistant Regional Engineer
EXTERNAL STAKEHOLDERS
• Parents • Facility Staff

DRINKING WATER SAMPLING FOR LEAD PROCEDURES AND TIMELINE

Task	Description and Comments	Responsibility	Days after (before) sampling event
Preparation for Sampling (P)			
P1	Brief Installation Leadership. Provide installation leadership and public health officials an overview of the U.S. Navy's LIPA requirements and reference (d). At a minimum, this should include the installation commanding officer, public affairs officer, Morale, Welfare and Recreation, PWO, installation water quality board (if applicable), Office of General Counsel and PMA.	Installation N45	(35)
P2	Develop Public Awareness Strategy (Communication Plan). PAO (installation and region) provides initial public affairs strategy with concurrence of stakeholders. Regional PAO coordinates with PMA, Chief of Information (CHINFO) and the Command Master Chief (CMC) for approval on public affairs approach.	Installation and Region Public Affairs Officers	(35)
P3	Notify Region and External Stakeholders. Inform stakeholders and other interested, parties of upcoming LIPA sampling at their facilities, the schedule, and communication plan.	Installation N45 and Installation Commanding Officer	(30)
P4	Inventory Water Fixtures. Coordinate with the facility director to visit and survey the facility for water fixtures that are or could be used for drinking, food preparation, washing, or other activities that could result in ingestion.	Installation N45	(28)
P5	Develop Sampling Plan. Using the "Sample Summary Results Table," develop and confirm the complete list of water fixtures with proposed sampling dates and times. Provide plan to the installation PMA for routing and approval to Naval Medical Forces.	Installation N45	(21)
P6	Review and Approve Sampling Plan. Review and approve the sampling plan with concurrence from the CDC, Child Development Home (CDH) and the SAC director. Coordinate plan approval with the region's PMA program office.	Region N45	(18)

Task	Description and Comments	Responsibility	Days after (before) sampling event
P7	Finalize Sampling Plan. Finalize plan based on comments from P5; submit to installation commanding officer, region and PMA	Installation N45	(15)
P8	Draft Parent/Staff Notification Letter. Using the example notification letter templates from paragraph 7 of this instruction, develop draft letter and provide to PMA, PAO, and installation commanding officer.	Installation N45	(15)
P9	Review Public Awareness Strategy For Corrective Action Strategy. PAO (installation and region) provides initial public awareness strategy with concurrence of stakeholders. Regional PAO coordinates with CHINFO, CMC and PMA for approval on public affairs approach and provides strategy to CNIC PAO for review.	Installation and Region Public Affairs Officers	(13)
P10	Review and Issue Parent/Staff Notification Letter. In coordination with installation PAO and PMA review, revise the notification letter and distribute to staff and parents.	Installation Commanding Officer	(10)
P11	Meet with CDC, CDH and SAC Director. Meet with facility director to prepare for sampling. Preparation includes education of personnel (including cleaning staff) to stop using water after identified closure hour to allow at least 8 but no more than 18 hours of stagnation prior to sampling.	Installation N45	(7)
Sampling and Results (S)			
S1	Secure Fixtures. Secure fixtures and label bottles for sampling as identified in the plan. Fixtures can be secured by facility director or building manager point of contact, as coordinated.	Installation N45	(1)
S2	Conduct Sampling at Identified Fixtures. Conduct first draw samples as identified in sampling plan. Laboratory result turnaround time should be 14 days.	Installation N45	0
S3	Review Results. Review results and determine follow-up needed for samples with greater than 15 ppb.	Installation N45	15

Task	Description and Comments	Responsibility	Days after (before) sampling event
S4	Notify Stakeholders and Secure Fixtures. Notify installation commanding officer, installation PMA and region of all results. Secure any fixtures with levels greater than 15 ppb. Explain verbally and in writing to CDC, Child Development Group Home and youth center staff requirements for these fixtures. Begin weekly SITREPs to update the chain of command of any corrective actions. Region immediately notifies CNIC and NAVFAC environmental.	Installation N45	16
S5	Schedule Follow-up Sampling. Schedule follow-up sampling for any fixture with greater than 15 ppb. Follow-up samples will be collected per this instruction.	Installation N45	16
S6	Conduct Follow-Up Sampling at Identified Fixtures. Retrain staff as needed to ensure fixtures are left stagnant at least 8 but no more than 18 hours prior to sampling. Lab results turnaround time should be three days.	Installation N45	21
S7	Review Follow-Up Sampling Results. Review results with installation PMA using EPA guidance to determine source of lead and recommended corrective actions. Fixtures must remain secure until corrective actions are complete.	Installation N45 and PMA	25
S8	Finalize and Execute Public Awareness Strategy. Finalize any frequently asked questions, press releases, articles, etc., as identified. Prepare staff for interviews (as required).	Installation Public Affairs Officer	26
S9	Notify Stakeholders of Results and Recommendations. Notify installation commanding officer, region, PMA, PAO, CDC, CDH and SAC director of results. Copies of notifications will be provided to CNIC N45 and NAVFAC HQ environmental for awareness.	Installation N45 and Public Affairs Officer	26
S10	Notify Staff and Parents of Results. Deliver letters (by hand for facilities with results greater than 15 ppb) and conduct info sessions as necessary.	Installation Commanding Officer	26

Task	Description and Comments	Responsibility	Days after (before) sampling event
S11	Post Results to Website. Post results on installation website (public).	Installation Public Affairs Officer	26
S12	Train Staff on Lead Minimization Procedures. Train staff on lead minimization procedures.	Installation N45	26
Corrective Actions (C)			
C1	Initiate Corrective Actions. Ensure corrective actions are completed as planned in S8. Continue weekly SITREPs until resampling is completed.	Installation Public Works Officer	26
C2	Schedule Post-corrective Action Sampling. Prepare all personnel for follow-up sampling as necessary. Repeat notification steps in P8, P9 and P10.	Installation N45	TBD
C3	Conduct Post-corrective Sampling. Collect post-corrective action sampling at identified fixtures. Fixtures will remain secured until results are reviewed.	Installation N45	TBD
C4	Review Post-corrective Action Sampling Results. Fixtures with less or equal to 15 ppb can be returned to service. Additional corrective actions will be necessary per reference (d) guidelines if levels are still greater than 15 ppb.	Installation N45	TBD
C5	Notify Stakeholders of Results and Recommendations. Notify installation commanding officer, region, PMA, CNIC N45, NAVFAC HQ EV, CDC, CDH and SAC Director of results.	Installation N45	TBD
C6	Notify Staff and Parents of Corrective Actions. Draft parent/staff notification letter (see Example Notification Letters form) to notify of completed actions. Upload notifications and results to website. Copies will be provided to CNIC N45/NAVFAC HQ EV.	Installation Commanding Officer	TBD

SAMPLE IDENTIFICATION FORMAT

[Installation ID]-[Building #]-[Location ID]-[Outlet ID]-[Sample Type ID]
(e.g., NSAA-A332-HALLFLoor2-WFC-FD)

Installation ID	Description
NSAA	Navy Support Activity Atlantis
AOLF	Atlantis Outlying Landing Field
RRA	Remote Radar Station Atlantis

Location ID	Description (can be amended by facility-specific info)
K	Kitchen
HERM	Home Economic Room
LOUNGE	Teacher's Lounge
NURSE	Nurse's Office
RM	Classroom
BATH	Bathroom
UT	Utility Room
HOSE	Hose Attachment
HALL	Hallway

Outlet ID	Description
K	Kitchen-type Sink used for Food Prep or Washing Dishes
HHW	High Hand Washing Faucet (intended for adults)
LHW	Low Hand Washing Faucet (intended for toddlers)
HWCOMB	Handwashing Faucet from Combination Sink
TB	Teeth Brushing Faucet (if no teeth brushing occurs, use applicable hand washing ID)
WFC	Water Fountain (Cooler)
WFB	Water Fountain (Bubbler)
WFCOMB	Water Fountain Outlet from Combination Sink
…(A, B, C, …)	Assign letter if more than one outlet is in same location (start from left to right)

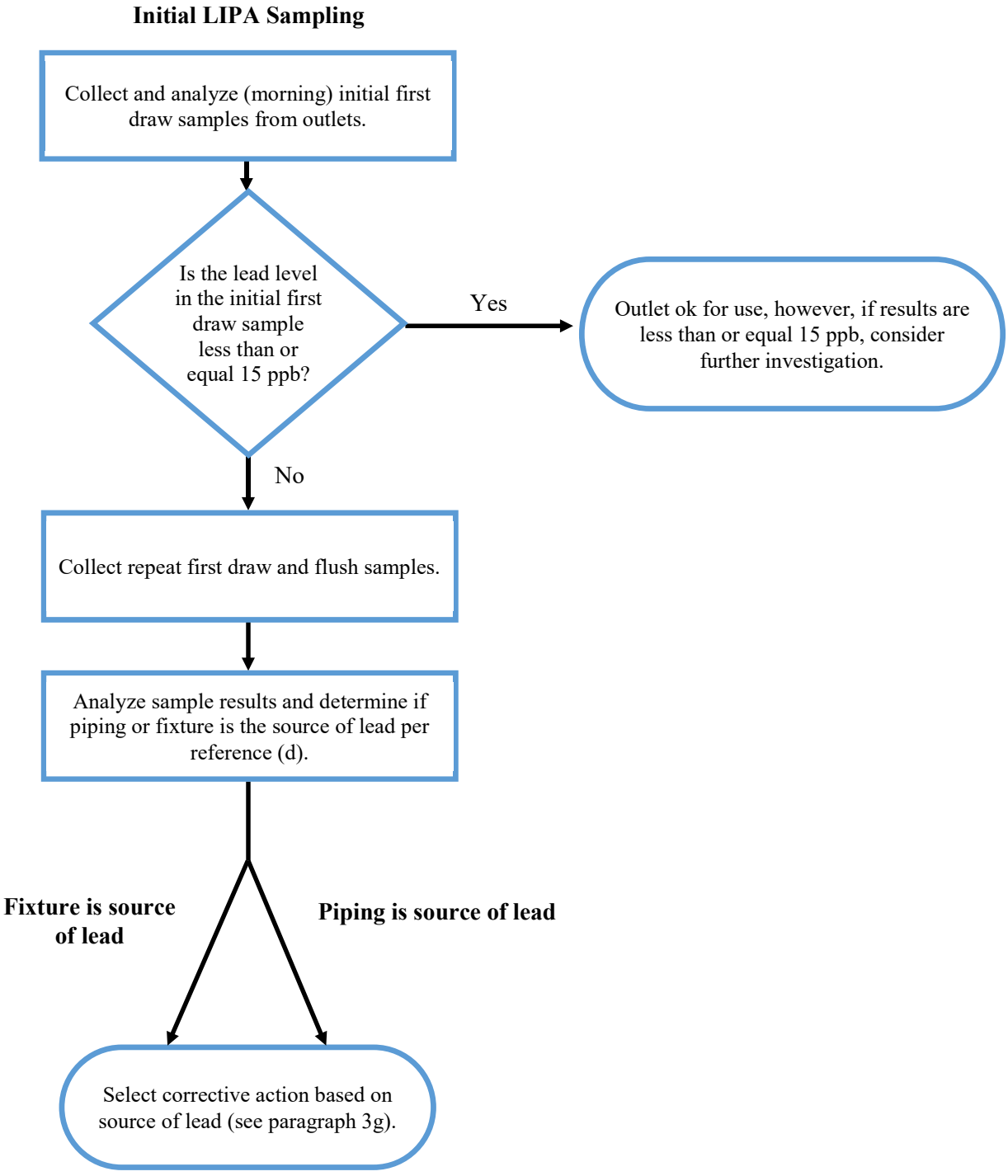
Sample Type ID	Description
FD	First Draw
2FD	Second First Draw
FF30	Follow-Up Flush (30 sec. after opening outlet for first draw)
FF15	Follow-Up Flush (15 min. flush for water cooler only)

SECURED OUTLET SIGN

SECURED
DO NOT USE!

ENVIRONMENTAL WATER SAMPLING IN PROGRESS

SAMPLING STRATEGY FLOWCHART



Begin at top of flowchart for the next LIPA sampling event in 5 years.

PIPE VOLUME TABLE

Flush the estimated volume of water between the service connection and the sample tap. You can estimate the volume of water by using below Pipe Volume Table. EPA recommends selecting the pipe diameter that is one size larger than the actual pipe size, since pipe material thickness can vary, affecting the interior diameter and the actual volume of water. You can also estimate the volume by measuring the length and diameter of piping from tap to connection and the length, and diameter of the service connection itself into a graduated beaker or cylinder to ensure that you have collected the correct volume, and then close the tap.

Pipe Volume Table
(Volumes Listed in Liters)

Pipe Length (Feet)	Pipe Diameter (Inches)					
	3/8	1/2	5/8	3/4	1	1-1/2
2	0.06	0.09	0.14	0.19	0.32	0.50
3	0.09	0.14	0.21	0.29	0.49	0.74
4	0.11	0.18	0.27	0.38	0.65	0.99
5	0.14	0.23	0.34	0.48	0.81	1.24
6	0.17	0.27	0.41	0.57	0.97	1.48
7	0.20	0.32	0.48	0.67	1.14	1.73
8	0.23	0.36	0.55	0.76	1.30	1.98
9	0.26	0.41	0.62	0.86	1.46	2.22
10	0.28	0.45	0.69	0.95	1.62	2.47
11	0.31	0.50	0.75	1.05	1.78	2.72
12	0.34	0.55	0.82	1.14	1.95	2.96
13	0.37	0.59	0.89	1.24	2.11	3.21
14	0.40	0.64	0.96	1.33	2.26	3.46
15	0.43	0.68	1.03	1.43	2.43	3.71
16	0.46	0.73	1.10	1.52	2.60	3.95
17	0.49	0.78	1.16	1.62	2.76	4.20
18	0.51	0.82	1.23	1.71	2.92	4.45
19	0.54	0.86	1.30	1.81	3.08	4.70
20	0.57	0.91	1.37	1.90	3.24	4.94
25	0.71	1.14	1.71	2.38	4.06	6.18
30	0.86	1.36	2.06	2.85	4.87	7.41
35	1.00	1.59	2.40	3.33	5.68	8.65
40	1.14	1.82	2.74	3.80	6.49	9.88
60	1.43	2.27	3.43	4.76	8.11	12.36

Notes:

1. Volumes can be added together for pipe lengths not listed.
2. A wide-mouthed 250mL bottled is filled in approximately 12 seconds at steady flow.