

**DOEHRS-IH EH Business Area
Water Sample Point Naming Convention
for Garrison Water Systems**

November 2020

1 - Introduction

a. The use of a dedicated sampling point naming convention and associated code scheme is required to differentiate sampling missions and facilitate consistency. The naming convention is described below in two sections, (A) building/site (section 2) and (B) sampling point (section 3). Each section has additional steps as indicated. Not all steps are required for each sampling point depending on the sampling mission and nature of the sampling location.

b. All sampling points must be linked to a Water System Component (WSC). In garrison settings, this is almost always the Pipe Distribution System (PDS). There may be multiple water systems on a single location and therefore multiple PDSs, so care must be taken in assigning sampling points to the correct PDS. In some cases the WSC may be a Natural Water (NW) Source for raw water sampling or a Municipal Water (MW) Source for testing *within* a treatment plant (i.e. after filtration but prior to disinfection). The sampling point used for NW WSCs are often the same as the WSC itself, while MW WSCs sampling points may be a specific floor and room. Water from containers such as tanks and bladders used at ranges and/or training activities should be linked to a Water Container (WC) WSC. In these situations the sampling point is the WC itself, and in others cases containerized water may be gravity feed to a building, so the sampling point (i.e. the floor, room, etc.) and WC WSC may not always be the same. A Field Water Treatment (FWT) System (e.g. ROWPU, TWPS, etc.) may be used for sampling at a range and/or for training activities as well. The sampling point for the FWT WSC is almost always the FWT WSC itself and sampled directly (i.e. similar to NW sampling points). Table 1 shows a list of WSCs and the types of samples that should be linked to them.

Table 1. Water System Components for Installation Water Systems

Water System Component	Types of Samples	Examples
Pipe Distribution System	Samples collected in the distribution system	Routine PM coliform samples and most SDWA compliance samples
Natural Water Source	Raw water sample collected prior to any treatment	Raw water <i>E.coli</i> samples
Municipal Water System	Samples collected within a water treatment plant <i>prior</i> to complete treatment	Filtered water samples collected prior to disinfection before entering the distribution system
Field Water Treatment System	Samples collected from a military field treatment system	Samples collected directly from a ROWPU or TWPS at a training range
Water Container	Samples collected from a military water storage container; or from buildings gravity by containers	Samples collected from a tank or bladder at a training range. Note: routine sampling results should be added within the Water Container Survey; only use this when advanced analysis is required.

c. While the use of the sampling point code is better for garrison operations, Table 1 should still be adhered to in deployment sampling situations. However, strict adherence to the sampling point code in section 2 and 3 is not required in deployment settings, and modifications are permitted as needed.

d. **Do not** include QA sampling for recreational waters and bulk ice produced at food establishments; samples associated with these operations are documented with the respective facility sanitation survey.

2 - Building/Site Naming Convention Instructions

The **Building/Site** portion of the naming convention is denoted with **green codes**. There are 3 steps to building/site code. The format for the complete building/site portion of the code is shown below. Hyphens are used to separate each portion of the code.

Format = Installation descriptor (A1) – Sampling Mission descriptor (A2) – General Sample Location Descriptor (A3)

Figure. Building/Site Naming Convention Format

Step A1. Identify the Installation

The installation descriptor is a 3-4 character code and is used to designate the Installation. This code will generally be dictated by Level IV or V. Table A1 shows example codes for 3 installations. Consider using an installation's commonly used abbreviation. For example, Fort Meade is typically abbreviated as FGGM (Fort George G. Meade) and not FTMD (Fort Meade).

Table A1. Location Codes

Example Location	Code
Aberdeen Proving Ground South	APGS
Fort Drum	FDNY
Yakima Training Center	YTC

Step A2. Identify the Sampling Mission

A 2-5 character code is used to designate the sampling mission. Table A2 shows the current mission types and their corresponding codes. Additional missions may be added with the concurrence of Level V.

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Table A2. Sampling Mission Codes. Note: If “INV” is used for any points ensure a code in Table B1A is used.

Mission Type	Code
Compliance Missions	
Entry Point to the Distribution System (first tap)	EPTDS
Within Distribution System – Lead Copper Rule	DS(LCR ¹) ²
Within Distribution System – Disinfection by-product	DS(DBP)
Within Distribution System – Total Coliforms/Disinfectant	DS(TC)
Other (e.g. chlorine dioxide, source water Cryptosporidium)	OTR(xxx ³)
Increased Compliance Testing – Other (e.g. nitrate, VOCs, pesticides)	ICT ⁴ (xxx ³)
Preventive Medicine Sampling	
<i>Routine</i> Medical Oversight/Quality Assurance Sampling	PM
Preventive Medicine Investigation	PM(INV)
Investigative Sampling Events (non-PM/non-compliance sampling)	
Investigation – Lead Sampling in AFH/HRF	INV(Pb) ²
Investigation – Other (e.g. aesthetics, coliforms, nitrate)	INV(xxx ³)

¹ Lead and Copper rule samples may also include other metals as required (e.g. Ni). Use the Exposure Notes field on the sample page to document these occurrences.

²See Section 5 for additional notes on Pb and/or LCR samples. Lead samples are often differentiated by first draw and various time increments (e.g. 30 seconds and 2 minutes). These characteristics of the sample are captured in the Field/Local Sample ID field.

³Add a lowercase 2-5 character code as an additional identifier. For example, a raw water *E.coli* sample collected IAW the Groundwater Rule’s triggered source water monitoring requirements could be identified as OTR(ecoli). This would not be an investigative sampling event, but simply an “other” defined compliance missions. For truly investigative sampling events with an INV code employ the same logic above, but for the parameter(s) of concern (e.g.) INV(pfas) for polyfluoroalkyl substances.

⁴These sampling situations apply where the sampling point is required to be monitored for an extended time frame at an increased frequency for a particular parameter(s) of concern. This mission code represents a situation when an additional parameter(s) must be added to the established routine compliance monitoring suite, but is unique enough to warrant its own sampling point.

Step A3. Identify the General Sample Location

The general sample location description consists of an alphanumeric character code shown in Table A3. For example, a sampling point inside of, or associated to a building, would use ‘B’ and the number of the building. Examples of general sample location codes are shown in Table A3a. As shown in Table A3a, it may be necessary to include additional identifiers to develop an accurate and useful general sample location code (e.g., Ujac = Sampling point inside of Jack’s Bistro, building is unmarked).

If a sample location is neither in a building nor associated with a building, use the non-building code in Table A3 with additional identifier code (see the example in Table A3a). Examples of non-building sampling locations include fire hydrants, dedicated distribution system sampling stations, storage tanks, and water fill points.

For non-building sample locations (i.e. N”xxx”), proceed to Step B5 to develop the sampling point code. For all other sample locations, proceed to Step B1.

Table A3. General Sample Location Description Codes

Physical Description	Code
Building	B#
Non-building [†]	N“xxx”
Unmarked Building [‡]	U“xxx”
Unmarked Chlor Station [‡]	CHLOR
Well	W#
Zone*	Z“xxx”

[†] Stand pipes, water supply points, fire hydrants, and permanent water distribution sampling point stations installed by the water utility. Proceed to Step B5 if this code is used.

[‡] Only use when there is no building identifier, otherwise use B#.

*Zone codes cannot be used when the mission uses an INV code in Step 2.

Table A3a. Physical Description Code Examples

Example	Code
Sampling point inside of building 1675	B1675
Sampling point at a temporary building 158	Bt158
Sampling point inside of Jack’s Bistro, building is unmarked	Ujac
Sampling point at the intersection of Smith and Roe roads, no associated building	Nsmth&roe
Sampling Point rotates within Zone A	Za

Note: Define abbreviations in the DOEHRs Sampling Point notes field.

3 - Sampling Point Naming Convention Instructions

The **Sampling Point** portion of the naming convention is denoted with **blue codes**. The sampling point naming convention is intended to provide detailed sampling location and mission information. For non-building sampling locations there is single step to develop the sampling point code (proceed to Step B5). For all other sampling locations there are 4 steps to the sampling point code, and the format for the complete sampling point portion of the code is shown below. Hyphens are used to separate each portion of the code.

Format = Building Type (B1) – Floor (B2) – Room (B3) – Use (B4)

Figure. Sampling Point Naming Convention Format

Step B1. Identify the Building Type.

The building type is a 2- or 4-letter code annotating the building’s function or primary activity as shown in Table B1.

Rule 1: When the sampling mission is investigative – either “Investigative Sampling Events (non-PM/non-compliance sampling)”, or “preventive medicine investigation” (when “INV” is used in the sampling mission code) and the sampling site is a Building, the codes in B1a should be used as needed in parentheses after the building type code.

Rule 2: An additional identifier, consisting of 3-8 lower-case characters, may be used to further refine the building type. Examples are shown in Table B1b. These 3-8 characters

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are separated from the Building Type Code with a hyphen for visual clarity when viewing the entry in DOEHRs.

Note: For non-building sample locations, the building type code is not used - proceed to Step B5.

Table B1. Building Type Codes

Building Type	Code
Admin/Office Building	ADO
Barracks	BKS
Billeting / Lodging	BIL
Child Development Center	CDC
Clinic/Hospital	CLN
Family Housing / Residential	FH
Mil. Dining Facility / Cantina	DFAC
Gym/Fitness Center	GYM
Restaurant / Snack Bar	RES
School	SCHL
Water Treatment Plant	WTP
Other	OTR
Zone<Name> [†]	<Name>

[†]If a Zone code is used, then the Zone “Name” must be added to the Sampling Point field. It should be a concise description (e.g. “Artillery Circle”). No other codes are needed. See Table 1-5 at the end for an example. However, Individual Building or specific Sampling Point details MUST be added to every individual Sample’s Notes field.

Note: If “Other” is selected, further define in the DOEHRs Sampling Point notes field. Examples of OTR: laboratories, youth centers, storage facilities, motor pools, etc.

Table B1a. Investigation Codes*

Type of Investigation	Code	Examples
Back Flow	BF	ADO(BF)
Cross Connection	XC	CLN(XC)
Main Break	MB	CDC(MB)
Water Quality	WQ	SCHL(WQ)

*Note: These codes are only to be used with a mission type using “INV” in step A2.

Table-B1b. Example Uses of Optional Building Identifier Codes

Building Type	Example	Example Code
OTR	Bowling Alley (routine PM sample)	OTR-bow
RES	Subway (PM investigative sample related to a main break)	RES(MB)-sub
BKS	1 st Brigade, 25 th Infantry Division (routine PM sample)	BKS-1/25
ADO	Logistics Warehouse (compliance sample)	ADO-loghs
WTP	Building only involves chlorination (compliance sample)	WTP-chlor
WTP	Raw water from well structure (a non-compliance water quality-related sample)	WTP(WQ)-raw

Note: The additional identifier is optional and should only be used with discretion and oversight from Level IV and V. All identifier codes should be in lower case and described in the DOEHRs Sampling Point notes field.

Step B2. Identify the Building Floor Level

The floor level code consists of an alpha character and number refiner if the floor is other than ground. For example, a sample point located on the 2nd floor is coded as 'F2'.

Note: For non-building sample locations, this code is not used - proceed to Step B5.

Table B2. Floor Level Codes.

Floor Level	Code
Floor	F# [†]
Basement	B# [†]
Ground	G
Unknown/NA	U

[†]The ground floor and first floor may not always be the same (e.g. F1 may be the second floor if the building's floors are labeled as such). The use of B1 may indicate a basement level directly underneath the ground floor.

Step B3. Identify the Room Description.

The room description consists of an alpha character(s) and number refiner where relevant.

Note: For non-building sampling locations, this code is not used - proceed to Step B5.

Table B3. Room Description Codes

Room Description	Code
Room	R#
Apartment	APT#
Unmarked/Unknown	U
Outside	O

Note: Where the room is unknown, note the specific sample location using 1-3 additional characters, and further describe the sample point in the notes section of DOEHRs. For example, -Onwside- (outside, northwest side of building), or -Uhall- (unmarked; hallway). Using this room description option will require user discretion and coordination with Level IV or V.

Step B4. Identify the Room/Drinking Water Outlet Use.

Table B4 shows the room/drinking water outlet use codes to be used. These codes consist of 1-3 alpha characters and a number refiner where necessary to clarify repetitive sample points. For example, multiple water fountains in the same room/area should be identified as WF1, WF2, etc. (see note below table B4).

For all Room/Drinking Water outlets, the faucet/spigot chosen should be come from a faucet/spigot head that has dedicated hot and cold knobs/handles. If the tap head mixes the water based on its construction (e.g. a rotatory knob), seek a faucet/spigot with segregated cold and hot outlets. Always use the cold water outlet/knob/handle when collecting a sample. If this is unavoidable, it should be clarified the in DOEHRS Sampling Point notes field.

Table B4. Room/Drinking water outlet Use Codes

Room Use	Code
Break Room	BR
Female Locker Room	FLR
Female Restroom	FR
First Tap	FT
General Restroom	GR
Hose bib	HB
Kitchen	K
Lab sink	LS
Male Locker Room	MLR
Male Restroom	MR
Utility Sink	US
Unknown [†]	U
Water Fountain	WF

Note: If the overall sample point name is not unique, begin numeric counting. Example: multiple water fountains in the same area = WF1, WF2.

[†]Unknown should rarely be used. It only applies when the room use information to be added to DOEHRS is no longer known, e.g. retroactive sampling event data added to DOEHRS by someone who was not the collector due to a job reassignment.

Step B5. Sampling Point Naming Convention for Non-building Sample Locations

The sampling point naming convention used for non-building sample locations is different than all other sample locations. There is a single step to develop the sampling point code for non-building sample locations. The codes in Table B5 should be used. An additional location identifier in lowercase should also be used to provide a more accurate sample location description. For example, a non-building sample collected at fire hydrant 23 (per installation Fire Department identification) could be coded as 'ST-fire23'.

The 'ST' (sample tap) code should be used for the majority of sample points collected at non-building sample locations. It is considered a general term used to represent the actual sample location (e.g., the sample tap on a storage tank or a sample collected directly from a water fill point).

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When the sampling mission is investigative – either “Investigative Sampling Events (non-PM/non-compliance sampling”, or “preventive medicine investigation” (i.e., when “INV” is used in the sampling mission code), the codes in Table B5a should be used as needed in parentheses after the sampling point code.

Table B5. Sampling Point Codes for Non-building Sample Location

Sample Point Description	Code	Examples
Open Water	Open Water	Open Water
Sample tap [‡]	ST	ST-tank234
Dedicated/Permanent Sampling Station [¶]	SS	SS-h45

[‡]Sample tap should be used to describe sample locations not associated to buildings such as samples collected at water fill points, fire hydrants, or storage tanks. An additional location identifier in lowercase should also be used to provide a more accurate sample location description

[¶]Permanent, dedicated water distribution sampling station installed and identified as h45 by the water utility.

Table B5a. Investigative Codes

Type of Investigation	Code	Example Code
Back Flow	BF	ST-fire-(BF)
Cross Connection	XC	ST-standpipe-(XC)
Main Break	MB	SS-h45-(MB)
Water Quality	WQ	ST-tank234-(WQ)

4 - Sampling Point Code Implementation Example

Example Scenario: Sampling point located on Aberdeen Proving Ground-South (APGS), MD, Building 5800, an office building, on the ground floor, in the men's room (an unlabeled room) at the men's room sink. This sampling point is used for collecting compliance-related disinfection byproduct (DBP) samples. The Water System Component is Pipe Distribution System, APGS.

The steps would progress as detailed below. The complete sampling point would appear in DOEHRs as shown in Figure, below.

Building/Site

- Step A1. APGS
- Step A2. DS(DBP)
- Step A3. B5800

Sampling Point

- Step B1. ADO
- Step B2. G
- Step B3. U
- Step B4. MR

Sampling Point Detail			
* Indicates Required Field			
[Save] [Cancel]			
Sampling Point Information			
Water Type*	<input checked="" type="radio"/> Treated <input type="radio"/> Untreated		
Building/Site*	APGS-DS (DBP) -B5800	Sampling Point*	ADO-G-U-MR
Collection Point*	Tap/Faucet	Water Use*	Primary Drinking Source
Treatment Type* (Ctrl click to select multiple)	Absorption Air Stripping/Recarbonation Chloramines Chlorine	Non Drinking Uses* (Required for Non-Drinking water use)	<input type="checkbox"/> Showering <input type="checkbox"/> Personal Hygiene <input type="checkbox"/> Cooking <input type="checkbox"/> Recreation <input type="checkbox"/> Other
Start Date*	2015/07/08	Stop Date	
Notes	Using utility sink in men's restroom		
Water System Component			
Water System Component Type	Water Pipe Distribution System		
Water Pipe Distribution System	APG S Distro System (Van Bibber)		
Name of Pipe Network	APG S Distro System (Van Bibber)		
Construction of Pipe Network	Below ground		
Type(s) of Pipe Materials	Asbestos Cement Pipe		
Other Type(s) of Pipe Materials			

Figure 1. Sampling Point Detail Page as it appears in DOEHRs

5 – Differentiating First Draw vs Flushed Samples Example

For Army Family Housing/High Risk Facility Lead sampling that occurred in 2016 to now, the 3 sample method is used – first draw, 30 second flushed, and 2 minute flushed. To differentiate between the 3 samples collected at the same sampling point, the type of sample will be logged in the “Field/Local Sample ID” for each sample.

The field/local sample ID would appear in DOEHRs as shown in Figure, below.

- First Draw (FD)
- 30 Second Flushed (30sec)
- 2 Minute Flushed (2min)

Treated Water - Detail

* Indicates Required Field

Other Actions -Sample-

Save Save And Continue Save and Copy as Another Sample Cancel

Administrative Data

Sample Type	Treated Water	Outdated	<input type="checkbox"/>
Sample ID	0000KNWJ	Field/Local Sample ID	1A (FD)
Start Date/Time*	2016/11/07 (yyyy/mm/dd) 0000 (1500)	Status	Approved by QA
Collector Selection		Outdated	<input type="checkbox"/>
Collector's Name		Field/Local Sample ID	1B (30sec)
Collector's Phone No.		Status	Approved by QA
Sample Reason*	Other Note: Exposure Notes are required.	Collector's Email	
Exposure Duration	<input type="radio"/> < 1 Week <input type="radio"/> < 2 Week <input type="radio"/> < 1 Year <input type="radio"/> >= 1 Year	Collector's Unit	
Exposure Notes*	IMCOM OPORD 16-080	Collector's Email	
		Collector's Unit	

Associated Exposure Pathways

There are currently no Exposure Pathways associated with this sample. You may add Exposure Pathways by clicking on the Associate Exposure Pathway(s) button below.

Associate Exposure Pathway(s) Disassociate Selected Exposure Pathway(s)

Water System Sampling Point or Bottled Water

Is Bottled Water?*	<input type="radio"/> Yes <input checked="" type="radio"/> No	Manufacturer*	
Water System Component Type*	Pipe Distribution System	Bottling Location*	
Water System Component Name*	Ft. Benning Distribution System	Brand*	
Sampling Point*	FTBN-INV (Pb)-B13100/SCHL (WQ)-U-R1202-R1 (Treated Water)	Lot #	

Figure 2. Treated Water Detail Page as it appears in DOEHRs

6 - Additional Examples

Table 2. Sampling Point Naming Convention Examples

Location (A1)	Mission (A2)	Physical Descrip. (A3)	Bldg Type (B1)	Floor (B2)	Room (B3)	Use (B4)	Non-Bldg. Sample Point (B5)	Building/ Site:	Sampling Point:	DOEHRs Notes:
APG-S (APGS)	Routine PM Sampling (PM)	Bldg 4010	Shoppette	Floor 1	In hall of building	Water fountain - front door	NA	APGS-PM-B4010	OTR-F1-U-WF1	Water fountain (WF1) is in the hallway near the front door of Shoppette.
Yakima (YTC)	PM	Non-building	NA	NA	NA	NA	Water utility sampling station	YTC-PM-Njones&31	SS	Unmarked sampling station at the corner of Jones and 31 st street
Yakima	PM	Bldg 650	Housing Office	Ground	Outside	House Bib	NA	YTC-PM-B650	ADO-G-O-HB	Spigot on the outside of the housing office
(Fort Leonard Wood) FTLW	PM	Zone – A = South of Airport	N/A	N/A	N/A	N/A	N/A	FTLW-PM-Za	South of Airport	Zone “a” is the area known as “South of Airport”. Building/Room details MUST be added to the Samples’ Notes field.
Fort Drum (FDNY)	PM Investigation [PM(INV)]	Bldg 150	1/25 th Dining Facility	2nd Floor	Unmarked	Water fountain	NA	FDNY-PM(INV)-B150	DFAC(XC)-1/25-F2-U-WF	WF on 2 nd floor of new DFAC reported to have color issues due a cross a connection issue.
APG-N (APGN)	Compliance – lead and copper DS(FD)	Bldg 2485	CDC; annex	Ground	In hall of annex	Water fountain - men’s restroom	NA	APGN-DS(FD)-B2485	CDC-annex- G-U-WF2	Water fountain (WF2) near men’s bathroom in hallway of CDC Annex (ax).
Carlisle Barracks (CBKS)	Lead Sampling In AFH/HRF INV(Pb)	Bldg 459	Youth Center	Unknown	Snack Bar	Sink	NA	CBKS-INV(Pb)-B459	OTR(WQ)-yth-U-Usnack-Udual	Dual sink (Udual) in the snack bar of the Youth Center. Note: time increment will be captured in the field/local sample ID (see section 5).
APG-N	Compliance -Disinfection Byproducts DS(DBP)	Bldg 30	Restaurant	Floor 1	Unmarked	Men’s restroom	NA	APGN-DS(DBP)-B30	RES-topbay-F1-U-MR	Compliance sample in restaurant men’s room
APG-N	Investigative INV(OTR)	Non-building	NA	NA	NA	NA	Fire hydrant	APGN-INV(OTR)-Nwise&sth	ST-fire-(WQ)	INV for taste & odor; from fire hydrant at corner of Wise and Smith Rds.
Daenner Kaserne (=DAE)	Compliance - Entry Point	Chlor station	Water Treatment Plant	Basement	Unknown	First Tap	NA	DAE-EPTDS-CHLOR	WTP-B1-U-FT	First tap after chlorination in the basement of the unmarked chlorination station