

California Department of Public Health
Division of Drinking Water and Environmental Management

Point of Use Compliance

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INTRODUCTION

The California Department of Public Health, Drinking Water Program (CDPH) safe drinking water regulations allow public water systems to employ point-of-use (POU) treatment devices as a means for compliance with drinking water maximum contaminant levels (MCL) provided certain criteria are met. POU may not be used for microbial contaminants, volatile organic chemicals or radon. The criteria include but are not limited to:

- a water system with fewer than 200 service connections, and
- a water system that has demonstrated to CDPH that centralized treatment, for the contaminant of concern, is not economically feasible, within three years, and
- a water system that has demonstrated that point-of-entry (POE) is not economically feasible. POE treatment is applied to the drinking water entering a house or building for the purpose of providing treated water to the entire house or building.

This guidance document is intended to assist water systems considering POU as their means of compliance to structure a program that will be consistent with CDPH's requirements. CDPH recognizes that POU will be an attractive compliance option for many small water systems and desires to ensure that any POU program established by any water system provides the level of public health protection required in the Safe Drinking Water Act (SDWA).

POU COMPLIANCE PROGRAM OVERVIEW

A POU compliance program differs fundamentally from a centralized treatment compliance program. Under the POU program the water system is required to install a POU device that will treat only the water intended for direct consumption, typically installed at a single tap such as the kitchen sink. Centralized treatment treats all of the water produced by the public water system. Since only a very small percentage of the total water use is for direct consumption, typically 1-3 percent, a POU compliance program may result in significant cost savings for smaller water systems. Faucets without POU devices can be used for cleaning or washing but cannot be used to provide drinking and cooking water. A POU permit from CDPH can be obtained for a three year period. Following the three years, a water system may apply to CDPH for another three year permit.

California Code of Regulations (CCR) Title 22, Division 4, Chapter 15, Article 2.5 (§64417 et seq.) governs the use of POU devices in California public drinking water systems along with H&S Code 116380, 116552 and 116761.25. Additionally, federal law 42 U.S.C. 300g-1(b)(4)(E)(ii) contains requirements that must be met by water systems using POU devices as a means of compliance. Any water system choosing to use POU as their means to comply with an established drinking water maximum contaminant level (MCL) will be required to meet all of the requirements of both State and Federal law and regulations.

State and Federal law generally requires that the POU device:

- be owned, controlled, and maintained by the public water system or by a person under contract with the public water system to ensure proper operation and maintenance and compliance with the MCL;
- be equipped with mechanical warnings to ensure that customers are automatically notified of operational problems;
- be independently certified as conforming to an American National Standards Institute (ANSI) standard if one exists;
- cannot be used to comply with a MCL or treatment technique requirement for a microbial contaminant.

The CCR outlines additional requirements a water system must meet when using a POU compliance program. Specifically the water system must:

- submit a pre-application for State funding (SRF, Proposition 50 and Proposition 84) to the correct the current MCL violation;
- develop and have approved a written monitoring program, an operation and maintenance program and a treatment strategy;
- hold a public hearing and have no substantial community opposition;
- show that centralized treatment is not economically feasible;
- ensure that the POU device be certified to meet the relevant NSF International/American National Standard Institute (NSF/ANSI) standard for drinking water treatment units.

This guidance describes these requirements in greater detail and is designed to assist water systems through the analysis and decision making process for determining if a POU compliance program is an appropriate option and consistent with CDPH's standards.

DETERMINING IF POU WILL WORK FOR YOUR SYSTEM

When considering POU as a compliance strategy, water systems must fully understand and weigh the obligations that come with implementing such a program. Factors to consider when determining the appropriateness of POU for your water system include:

1. The number of service connections in your system,
2. The type of service connections in your system,
 - Single family homes
 - Apartments
 - Restaurants
 - Office buildings
 - Medical offices
 - Commercial or Industrial
 - Schools
3. The cost of central treatment versus POU,

4. The cost of POE versus POU,
5. The additional sampling you will be required to conduct and the associated expense of the sampling,
6. The ability to gain entrance into your customers' households and businesses,
7. The maintenance frequency and associated workload,
8. The record keeping requirements,
9. The willingness of your customers to accept a POU compliance program,
10. The willingness of your customers to allow the installation of POU devices which could entail the drilling of holes in their sinks and plumbing modifications,
11. The ability of the water system to gain authority to make participation in the program a condition of service,
12. Any liability associated with such a program.

As a threshold inquiry, a system must consider that CDPH will not authorize a system to implement a POU compliance program without a minimum of 50% initial water customer participation at the inception of the program. The system must then reach 100% water customer participation using the tools outlined in this guidance document and/or as outlined in your approved POU treatment strategy and CDPH enforcement document.

The establishment of a POU program raises challenging issues for a water system, including increased liability and private property access issues. CDPH suggests that water systems interested in a POU program should consult their own legal counsel to determine the best course of action.

For preliminary estimates of POU costs, the water system can download a cost estimating Excel spreadsheet tool from the EPA's website under the section "Treatment Options – Install Point-of-Use (POU) or Point-of-Entry (POE) Treatment" at the following link:

<http://water.epa.gov/type/drink/pws/smallsystems/compliancehelp.cfm>

WATER WASTING CONCERNS FOR A POU PROGRAM

When considering POU technologies, many water systems and their customers face concerns about potential water losses related to typical POU devices. These concerns are valid and need to be addressed. Different POU technologies have different treatment methods and characteristics, including water loss.

POU devices that use absorption technology use treatment media that chemically filter out contaminants by attracting them to the media. These units typically do not require backwashing and therefore do not result in water loss. The length of time to exhaustion in these units is dependent on the raw water quality. More intense sampling and increased maintenance time would be associated with this type of POU device.

POU Reverse Osmosis (RO) units are the most reliable and typically use two to four gallons of water to produce one gallon of drinking water. The fluctuation in efficiency is due to many factors that continually change within the RO system, including incoming water pressure, backpressure produced by the storage tank, and age and condition of the RO membrane itself.

To properly evaluate the optimal POU technology and achieve effective customer participation, it is important to educate your customers on the water use patterns within a service connection that comprise the total monthly usage. Industry data shows between 1% and 3% of the total volume of water used at a connection is for drinking and cooking purposes. This usage percentage holds true for “typical” households; households that have larger than normal water usage due to irrigation or other activities will have an even lower percentage of the total water usage being used for drinking and cooking.

The water wasted from a POU unit can be compared with centralized treatment, which has a backwashing cycle associated with it. Central treatment facilities will regularly backwash to either regenerate treatment media or to redistribute the filter bed. Whatever the purpose for backwashing, the plant will be using water that is not then delivered to customers, thus a certain amount of water wasting will occur.

MANAGEMENT OF A POU COMPLIANCE PROGRAM

Management of a POU program will be significantly different than management of a central treatment plant. The majority of work will center on administrative activities and testing. In a central treatment plant the emphasis also includes a fair degree of technical and operational knowledge, elements not as onerous in POU compliance programs. Systems considering a POU compliance program should evaluate the management factors associated with the program including:

1. Maintaining a log of installed units,
2. Tracking the useful life of the units,
3. Staggering unit or component change-out,
4. Executing unit or component change-out,
5. Maintaining testing records for each unit,
6. Coordinating with customers to schedule testing and maintenance,
7. Educating customers on the goals and functions of a POU program.

POU SYSTEM REQUIREMENTS

A POU system is considered a complete water treatment device that includes all components needed to connect it to a public water system under a POU compliance program.

Additionally, the POU systems must be certified by an American National Standards Institute (ANSI) accredited body under one of the NSF/ANSI water

treatment unit standards. Currently recognized ANSI accredited certification organizations for POU systems include and are not limited to:

- I. NSF International
- II. Water Quality Association (WQA)
- III. Underwriters Laboratory (UL)

CDPH does not endorse or warranty the work or effectiveness of any of the above organizations.

Currently recognized NSF/ANSI standards related to POU are:

- I. NSF/ANSI Standard 53 (Drinking Water Treatment – Health Effects)
- II. NSF/ANSI Standard 58 (Reverse Osmosis)
- III. NSF/ANSI Standard 62 (Distillation)

The water system must provide documentation from the treatment device manufacturer showing the treatment device is certified for the reduction of the specific contaminant(s) that the water system will be controlling. POU manufacturers are aware of this certification requirement and should be able to readily provide this documentation. CDPH's Water Treatment Device Certification Unit can also provide additional guidance in this area.

PERFORMANCE INDICATOR DEVICE REQUIREMENTS

Each POU device must have a mechanical warning or performance indication device (PID) which alerts the user when the unit is no longer meeting treatment standards. The point of use device certification must include certification of the PID. The PID must provide an automatic and effective means to warn the customer when the system is no longer operating effectively. The PID cannot include an automatic shutoff function. Automatic shutoff can result in the customer by-passing the unit and receiving untreated water directly from the tap. The POU device must be equipped with a totalizing flow meter.

The PID must be capable of providing a visual or auditory alert and must be calibrated to signal the customer prior to the POU device reaching its exhaustion stage. This will allow the water system sufficient time to receive notification from customers of the PID alert and perform maintenance to return the device to effective operation prior to the dispensing of water not meeting a drinking water standard. An example of a PID for a reverse osmosis POU device would be an electro conductivity meter with an appropriate alarm feature such as a light.

PILOT TESTING

Pilot testing is required for all POU devices prior to approval. Pilot testing can be completed at the water system facilities or within a home. It is a good idea to pilot test at least three different units. If the POU program is part of a CDPH funded project, three different vendors will be required to be tested. Pilot testing must be conducted for at least two months and a pilot testing protocol must be

submitted to CDPH for review and approval. CDPH may, at its discretion, waive the pilot testing requirement if the water system demonstrates that the proposed POU device has been tested under equivalent water quality and flow conditions and proven effective.

PUBLIC HEARING AND ACCEPTANCE

The water system is required to conduct a customer survey and participate in a public hearing. At least 30 days prior to the public hearing, the water system shall place in a publicly accessible repository, information that has been reviewed and approved by CDPH that contains the POU Treatment Strategy, the adverse health effects associated with the contaminant(s) of concern, and the POU Operations, Maintenance and Monitoring Plan. Following the public hearing, the water system will survey the customers. The survey will be distributed to each customer and include the following specific language:

“I vote FOR the use of Point-of-Use treatment devices. I ONLY want my kitchen tap and other designated drinking water taps used only for drinking, cooking, and oral hygiene, to be treated. I understand that my [*system to insert frequency*] water bill will increase \$[*system to insert increase in cost*] to implement this interim measure.”, and

“I vote AGAINST the use of Point-of-Use treatment devices. I want ALL the water entering my premise to be treated at a centralized treatment plant. I understand that my [*system to insert frequency*] water bill will increase \$[*system to insert increase in cost*] to implement the centralized treatment.”

POU use shall be considered to have no substantial community opposition if;

$$\frac{(\textit{number of customers voting against POU}) + (\textit{number of non - respondents})}{\textit{total number of customers}} < 0.50$$

CUSTOMER PARTICIPATION REQUIREMENTS

Customer participation can be a major challenge to water systems selecting a POU compliance program. For a successful POU program it is necessary that the water system be permitted to enter the household or place of business of each customer to install, test, and maintain the POU device. Customer consent to allow the water system to install and regularly maintain the POU is the key to a successful POU program. CDPH anticipates that some systems will encounter difficulties in obtaining access approval from every customer. A comprehensive education and outreach program may serve to assist water systems in obtaining acceptance from all customers.

In an effort to gain a better understanding of POU compliance strategies, various States have participated in pilot POU compliance programs. The following are lessons that were learned.

A customer satisfaction survey indicated that customers overwhelmingly supported the program and commented positively on benefits ancillary to the removal of the target contaminant. These comments included money savings in no longer purchasing bottled water, the convenience of not having to transport bottled water to their households, and the belief that treating only the portion of water used for drinking and cooking was wise.

In some communities, there were a number of customers who were not willing to permit the water system entry into their households to carry-out the necessary installations. A well planned and comprehensive customer education program at the very beginning may assist you in gaining the largest number of willing participants at the outset of your program. In instances where one or more customers have indicated they are unwilling to allow access to the water system, the water system will have to pursue alternative means to gain access to be eligible for CDPH permit of a POU compliance program. The water system could also pursue POE at the homes that will not allow access to the water system.

Consistency is a core concern. The SDWA establishes water quality standards that must be met for all customers. If a customer refuses to allow POU installation, that customer will not be receiving the same protection as those who have. In these instances it will be necessary for the water system to demonstrate they are taking a variety of actions to address this issue. These actions may include one or more of the following:

1. Obtaining legal authority to make installation of the POU device a condition of water service,
2. Obtaining access authority to customers' households through a homeowners association or Covenants, Conditions and Restrictions (CC &Rs), ordinances, or other legal authorities specific to the individual water system,
3. Obtaining legal authority to make installation of the POU device mandatory upon a transfer of ownership (real estate transactions),
4. Monthly notification to the refusing customer(s) informing them the water they are drinking does not meet SDWA standards and is posing a health risk using the required notification language.

Different water systems may have different powers and authorities to regulate the delivery of water to customers depending on each system's legal authority and the regulating authorities governing the water system. For example, a municipality or town may be able to write an ordinance or rule to condition service on the acceptance of a POU device. A domestic water improvement district may also have the ability to condition service on the acceptance of a POU device. A water system's ability to require POU installation as a condition of receiving service is for the water system to determine.

LEGAL AUTHORITY TO MAKE INSTALLATION OF THE POU DEVICE A CONDITION OF WATER SERVICE

Because a water system must obtain 100% POU customer compliance within the specified period, the water system must determine what authority it has to achieve complete customer compliance. After a customer fails or refuses to allow the installation of a POU, despite the water system's best efforts to obtain the customer's voluntary compliance, the water system must determine whether it has the legal authority to "require" the customer to accept the POU.

A system may consider whether it has the authority to shut off a customer's water service due to a failure to accept a POU, similar to the authority to shut off a customer's water for non-payment. As stated, whether a water system has this authority is for the water system to determine. CDPH cannot provide advice regarding a system's authority to require POU installation or to terminate service based upon a customer's failure to allow POU installation. CDPH recommends a water system obtain legal advice to determine its authority in such matters.

Another tool that may assist a water system to obtain 100% compliance is for the water system to seek homeowner compliance through petitioning to amend a housing development's Covenants, Conditions and Restrictions (CC&Rs) to require POU installation and maintenance by the water system.

CDPH cannot and is not making any representations or warranties that any water system has or may obtain any such authority.

OBTAINING LEGAL AUTHORITY TO MAKE INSTALLATION OF THE POU DEVICE AVAILABLE UPON A TRANSFER OF OWNERSHIP (REAL ESTATE TRANSACTIONS)

A water system may decide to seek to require POU installation and maintenance as a mandatory requirement binding new homeowners by making the requirement part of the sale of residential or commercial real estate. Such a requirement may be a "restrictive covenant", which passes in the "chain-of-title" to the property and is written to bind the current landowner and future landowners to allow POU installation and maintenance. Placing a restrictive covenant in the chain-of-title to a home or commercial real estate requires, at a minimum, the written *consent* of the landowner. To be effective, permanent and binding, a water system would need a restrictive covenant and also an easement to be able to enter the property to install and service the POU device. Although this would provide certainty, obtaining these on an individual basis from customers will likely be time-consuming, difficult and may require costs for legal counsel or other advice.

Other Legal Considerations

The water system should consider warranties on the POU devices and also insurance against incidental damage, failures, and other problems associated

with the installation, operation and maintenance of the devices in the customer's home. Liabilities associated with POU devices include but are not limited to, property damage from device leakage, installation or maintenance, and situations where homeowners may refuse entry for maintenance. Therefore, liability insurance should be considered. The cost could depend on the ownership of the devices; i.e., whether owned by the water system or leased. Also, water system operators or contractors will be entering homes; therefore, bonding of personnel and other agency liability issues may be a consideration.

The water system should also consider the responsibilities and liabilities the water system holds during installation, operation and maintenance of the POU devices. For example, a certified and licensed plumber, electrician or other professional may be required to install POU devices. Also, if a customer's plumbing, cabinetry, drywall, electrical, etc. to accommodate the POU device is modified incorrectly or damaged by a third party contracted by the water system to install the POU device, the water system may be ultimately responsible for damages related to the installation and for correcting improperly installed devices. Please consider discussing these situations with legal counsel.

MONTHLY NOTIFICATION TO THE REFUSING CUSTOMER(S) INFORMING THEM THE WATER THEY ARE DRINKING DOES NOT MEET SDWA STANDARDS

While a water system is seeking to obtain the consent of a customer to install and maintain a POU, the water system should issue a monthly notification to that customer informing them the water they are drinking does not meet SDWA standards and is posing a health risk using the required language provided by CDPH. It is important to remember that a customer's waiver does not excuse the requirement on the water system to provide water that meets the MCLs and all other drinking water requirements.

COMPLIANCE STATUS OF WATER SYSTEM USING POU PROGRAM

A water system implementing a POU program will be considered to be in compliance with MCL requirements, which the POU program is designed to correct, only when a POU device has been installed at every connection and the effluent of all POU's meets drinking water standards.

Water systems wishing to implement a POU compliance program that have not gained 100% participation from their customers may be issued a compliance order from CDPH. The compliance order may include a plan and time schedule with milestones to meet the 100% participation requirement and necessary notifications to the customers that are not participating. Water systems not completing the required actions within the specified time frames will be in violation of the compliance order and subject to penalty. If the water system is on a compliance schedule and is meeting the required milestones, the system will not be considered to be in violation with those drinking water requirements.

Any water system that does not have a POU device installed at every service connection and is not meeting milestones of a compliance schedule, or has not been issued a compliance order with a compliance schedule with CDPH, will be considered out of compliance and will be subject to enforcement.

It is imperative that a water system fully evaluate and plan for the course of action necessary to achieve 100% participation when considering a POU program. Because non-compliance would necessitate installation of centralized treatment, failure to install POU devices in all residential, commercial, or other establishments or institutions served by the water system within the designated time frame can result in a significantly more expensive outcome.

POU PROGRAM MONITORING REQUIREMENTS

It will be necessary for the water system to test the water from each POU device over a specified period of time to ensure the device is working properly. Compliance monitoring may use a combination of methods. First, the water system must collect a water sample from the POU device when it is installed. At a minimum, on-going monitoring for each POU device must be performed annually. The water system must complete a sampling plan and include it in their application for approval of the POU compliance program. The water system will then be required to follow the sampling plan upon Department approval. The sampling plan will include the following:

1. Source water monitoring will be required from each source quarterly,
2. Initially, the POU device will be sampled when installed,
3. Each POU device will be sampled annually, with one twelfth of all POU's sampled monthly on a rotating basis.

After two years of monitoring, the water system may apply to CDPH for reduced on-going monitoring of the POU's if all results do not exceed 75 percent of the contaminant's MCL. All compliance samples during the first two years are required to be conducted by a certified laboratory. If reduced monitoring is allowed, a combination of laboratory and field testing can be proposed. All records for chemical analyses, including any field tests, shall be maintained by the water system for a minimum of 10 years.

If any on-going monitoring indicates a sample exceeds the MCL, the water system shall:

1. Implement the public notification identified in their approved POU Treatment Strategy,
2. Collect a confirmation sample within 7 days (except if the exceedance is nitrate, nitrite or perchlorate, then collect a confirmation sample within 24 hours),

- 3 If the confirmation sample exceeds the MCL, notify CDPH and take corrective action.

CDPH may require additional monitoring at the source and/or POU effluent, which may include lead and copper, bacterial sampling or field sampling for a surrogate such as conductivity for RO units. Bacteria sampling of the POU unit may be required if the device contains an activated carbon element. If the POU device removes the disinfectant residual provided at the source, higher levels of bacteria may be seen in the effluent water of the POU devices.

APPLICATION FOR POU PROGRAM APPROVAL

Water systems considering a POU program must complete an application packet and submit it to CDPH for approval. This packet must include all of the following information:

1. The water system has demonstrated that centralized treatment is not economically feasible with three years,
2. The water system has demonstrated that POE treatment would not be economically feasible,
3. The water system has submitted to CDPH a pre-application for funding to correct the violation,
4. A permit application,
5. Following a public hearing, the results that determines that there is no substantial community opposition,
6. POU Treatment Strategy,
7. POU Operations and Maintenance Program,
8. POU Monitoring Plan.

All POU Programs must be approved by CDPH prior to installation.

POU TREATMENT STRATEGY

As part of the application packet, a POU Treatment Strategy must be submitted to CDPH for review and approval. The POU Treatment Strategy must include:

1. Description of the compliance problem,
2. Description of how the water system will determine the type, number and location of each POU device to ensure a sufficient number of devices are installed at all service connections,
3. The authority, ordinances and/or access agreements that allow the water system representatives to access the customer's premises for installation and maintenance,
4. The water system's authority to require a customer to accept the POU,
5. An initial and on-going customer education program,

6. Customer notification templates if the POU fails to meet the water quality standards.

ECONOMIC FEASIBILITY

The water system needs to determine the economic feasibility of centralized treatment and submit such documentation to CDPH as part of the application package. The documentation will need to include:

1. The estimated cost of centralized treatment to the water system customers,
2. The median household income (MHI) of the customers served by the water system.

The estimated cost of centralized treatment may include the cost of the equipment, the design and construction of the treatment facility, the residual handling of any waste product, monitoring of the sources and treatment system, and operation and maintenance cost.

Centralized treatment is considered NOT feasible if the cost, per household, is more than one percent (1%) of the MHI. Additionally, centralized treatment is not considered feasible if the cost of centralized treatment (per household) plus the median current water bill for the most recent 12 months is either more than 1.5 percent (1.5%) of the community's MHI (if the community's MHI is less than or equal to the statewide MHI) or, alternatively, is more than 2 percent (2%) of the community's MHI (if the community's MHI is greater than the statewide MHI).

POU PROGRAM INSTALLATION REQUIREMENTS

A water system must obtain CDPH approval prior to installing POU devices. Proper installation of the POU devices, in the correct location, is critical if the water system is to meet compliance requirements.

The water system will be responsible for the installation of the individual POU devices. The water system owner will need to ensure individuals installing POU devices are qualified to complete this work. Examples of qualified people include certified operators, licensed plumbers, and manufacturer or vendor representatives. Only those qualified individuals identified in the application packet will be permitted to perform the work under the CDPH approved program.

Generally, the water system will legally own the POU devices, and the water system always will be responsible for the installation, operation, and maintenance of the POU devices. The water system will need to ensure that, in the event of a transfer of ownership of the property, the POU device will stay with the property. The water system may enter in to a rental agreement with a POU

vendor; however, the water system shall maintain responsibility for the device including maintenance and recordkeeping requirements.

In the event a resident already has a water treatment device in their dwelling or business, the water system may offer to replace the existing POU device with the new one used by the water system's POU program. If the customer refuses, the water system should provide for the following:

- The customer's device should be certified by an accredited organization for the reduction of the contaminant of concern,
- The customer's device should have, or be fitted with, a performance indication device that meets the requirements for the POU program,
- The water system must obtain legal ownership of the device by obtaining the customer's consent to the transfer of ownership and pay compensation as necessary,
- The water system will be responsible for the proper operation and maintenance of the POU device,
- If the customer's device does not adequately treat the contaminants of concern, and cannot be retrofitted, the water system should inform the customer and obtain consent to install and maintain a new water treatment device.

Special installations (such as routing treated water to ice makers or additional faucets) must be performed by the water system. The water system must ensure individual homeowners and other users do not modify or alter the system after the installation.

POU PROGRAM OPERATION AND MAINTENANCE REQUIREMENTS

It is the responsibility of the water system to maintain and service the individual POU devices. A water system can never allow individual homeowners to perform maintenance on the units unless that individual is identified as a qualified person in the permit application or has been approved in writing by CDPH. Maintenance by other than qualified individuals may also impact issues of warranties, insurance and general liability.

POU device maintenance must be performed in accordance with the manufacturer's specifications. Failure to follow these specifications will be considered non-compliance.

The Operations and Maintenance Program will need to contain at least the following information:

1. Installation information that describes locations of each POU and assurances that the POU will be accessible to the water system,
2. The type and frequency of maintenance activities,

3. The number and type of POU parts, example pre-treatment requirements, to ensure continuous effective treatment,
4. Replacement schedules for critical components,
5. The qualified persons responsible for installation, operation and maintenance,
6. POU waste-handling and disposal procedures.

The water system needs to visit each POU at least once every twelve months for a general inspection. Inspection and maintenance records need to be maintained for each POU device. The Operations and Maintenance program document will need to be reviewed and revised as needed by the water system.

POU RECORD KEEPING REQUIREMENTS

The water systems must maintain records related to the POU for a minimum of ten (10) years. The following records must be available for inspection at the water system:

1. POU maintenance records and purchase orders,
2. Annual on-site inspection,
3. Results from certified laboratory analysis,
4. Outreach efforts, including notifications to customers not participating in the program.

POU DEVICES AND SYSTEM CLASSIFICATION

Systems adding a POU program are adding a treatment technology. If the system is currently graded as a “distribution system”, the addition of a POU program would change the system’s classification to a “treatment system” as well. Systems installing POU treatment will require operators with the appropriate grade of Water Treatment Certification, generally a T1.

CONCLUSION

The POU compliance program is intended to provide a water system with additional options for compliance with the SDWA. The document is guidance only and not a regulatory mandate. Regulatory references need to be confirmed. The water system considering POU as a compliance tool should consult with their legal counsel and other advisors before making any decisions. CDPH appreciates the effort of each water system pursuing compliance for the protection of public health.

Appendix

Certification Requirements for Point-of-Use (POU) devices

Background

Section 64591 of California's Waterworks standards states "... after March 9, 2008, a water system shall not use any chemical, material, lubricant, or product in the production, treatment or distribution of drinking water that will result in its contact with the drinking water including... mechanical devices used in treatment... that has not been tested and certified as meeting the specifications of NSF International/American National Standard Institute (NSF/ANSI) 61-2005 / Addendum 1.0-2005 (Drinking Water System Components-Health Effects)..."

For public water systems that are considering the use of POU devices as part of a compliance program, there may be confusion on whether the POU devices will need to meet NSF/ANSI 61 certification requirements (as well as California's low lead plumbing products requirements specified under Health & Safety Code, Section 116875).

Guidance

According to Section 1.2.2 of NSF/ANSI 61 standard, it states, "point-of-use drinking water devices are not covered by the scope of this standard." Therefore, it is not possible for POU devices to be certified under NSF/ANSI 61 standard.

According to USEPA guidance¹, "if the American National Standards Institute (ANSI) has issued product standards for a specific type of POU or POE treatment unit, then only those units that have been independently certified according to these standards may be used as part of a compliance strategy."

The currently recognized NSF/ANSI standards for drinking water treatment units that are appropriate for a POU compliance program are:

- I. NSF/ANSI Standard 53 (Drinking Water Treatment Unit – Health Effects)
- II. NSF/ANSI Standard 58 (Reverse Osmosis)
- III. NSF/ANSI Standard 62 (Distillation Systems)

Under the above standards, and as part of the treatment performance certification process, POU devices are tested to ensure that materials that come in contact with drinking water will not leach excess levels of contaminants into the product water. Therefore, the use of POU devices that have been certified to meet one of these standards will provide public health protection comparable to that of NSF/ANSI 61.

To ensure compliance with California's low lead plumbing products requirements, public water system should verify that the certified POU devices have also been certified to meet California's lead content requirements.

Scope of NSF/ANSI Standard 61 - 2011

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NSF/ANSI 61 – 2011

NSF/ANSI Standard
for Drinking Water Additives —

Drinking water system components – Health effects

1 Purpose, scope, and normative references

1.1 Purpose

This Standard establishes minimum health effects requirements for the chemical contaminants and impurities that are indirectly imparted to drinking water from products, components, and materials used in drinking water systems. This Standard does not establish performance, taste and odor, or microbial growth support requirements for drinking water system products, components, or materials.

1.2 Scope

1.2.1 This Standard is intended to cover specific materials or products that come into contact with: drinking water, drinking water treatment chemicals, or both. The focus of the Standard is evaluation of contaminants or impurities imparted indirectly to drinking water. The products and materials covered include, but are not limited to, process media (e.g., carbon, sand), protective materials (e.g., coatings, linings, liners), joining and sealing materials (e.g., solvent cements, welding materials, gaskets), pipes and related products (e.g., pipes, tanks, fittings), mechanical devices used in treatment/transmission/distribution systems (e.g., valves, chlorinators, separation membranes, point-of-entry drinking water treatment systems), and mechanical plumbing devices (e.g., faucets, endpoint control valves).

1.2.2 Point-of-use drinking water treatment devices are not covered by the scope of this Standard.

¹ *Point-of-Use or Point-of-Entry Treatment Options for Small Drinking Water Systems*, USEPA, Office of Water (EPA 815-R-06-010), April 2006