



# County of San Diego

## DEPARTMENT OF ENVIRONMENTAL HEALTH & QUALITY

### PUBLIC SWIMMING POOL PROGRAM

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Plan Check Scheduling Line: (858) 505-6660

## Pool, Spa, Wader: Minor Remodel/Renovation Frequently Asked Questions

### I. General

#### 1. What are the different types of projects that need to be submitted for review by DEHQ and what are the differences in the permitting process?

"Minor Remodel" means the remodeling of a Body of Water that includes resurfacing or replastering, decking work, above ground equipment changes, enclosure changes, and related ancillary facility modifications.

*Minor Remodel submissions include review of plans and one site inspection. The Body of Water cannot reopen for public use until final approval provided by DEHQ.*

"Renovation" means making modifications to an existing Body of Water that include replacement or changes to the below ground plumbing of a Body of Water, including surge tanks and main drain alterations.

*Renovation submissions include review of plans and two site inspections - the plumbing inspection and final inspection. The Body of Water cannot reopen for public use until final approval provided by DEHQ.*

"Single Equipment Change" means the replacement of an existing single piece of equipment with a unit of the same function, in the same location, and meets similar specifications as the existing equipment. (NOTE: Skimmers, Suction Vacuum Release Systems (SVRS), Drain Covers, and Underwater Lighting are not considered single equipment changes.)

*A single equipment change submission includes review of plans. A site inspection is conducted during the next routine inspection. These reviews are conducted in the office alongside a plan check specialist with a scheduled office consultation. Office consultations are typically scheduled within 7-10 business days; however, they may take longer during periods of high demand.*

"Major Remodel" means any scope of work that includes more than what is defined in a Minor Remodel or Renovation. An example of a Major Remodel includes structural modifications like changing the shape or altering the steps to the Body of Water.

*Major remodel submissions includes review of plans and up to 4 inspections - an exposed plumbing inspection, a pre-gunite inspection, pre-plaster inspection, and final inspection. The Body of Water cannot open for public use until final approval is provided by any required local building department approvals and DEHQ.*

"New Construction" means any new build out of a body of water where none existed before.

*New construction submissions includes the review of the plans, an exposed plumbing inspection, a pre-gunite inspection, pre-plaster inspection, and final inspection. The Body of Water cannot*

*open for public use until final approval is provided by both the local building department and DEHQ.*

**2. How long does the plan review process typically take for minor remodels/renovations?**

All new plan submissions other than single equipment change submissions are reviewed within 20-business days.

*Note: For single equipment change submissions contact DEHQ-FWHD Plan Check scheduling line at 858-505-6660 or email at [fhdpcheck.lueg@sdcountry.ca.gov](mailto:fhdpcheck.lueg@sdcountry.ca.gov) to schedule an office consultation.*

**3. What fees are associated with minor remodel/renovation plan submissions and permits?**

All current plan check fees can be found here: [FEE SCHEDULE PERMITS AND PLAN CHECK](#)

**4. What are the most common reasons for plan review disapprovals, and how can I avoid them?**

The most common reason for plan review disapprovals is not having the required information necessary for the scope of work proposed. The following will help provide additional details on what needs to be included in the submittal to ensure all necessary information for the scope of work is provided in the submittal:

- Title 24 of the California Building Code for Public Pools: [Title 24 Building Code](#)
- DEHQ Pool Plan Review and Construction Guide: [poolplancheckguide.pdf](#)
- DEHQ Pool Plan Check Minor Remodel, Renovation, Single Equipment Change - Template: [poolpackagetemplate\\_app.pdf](#)

**5. Can I perform the minor remodel/renovation work myself, or do I need a licensed contractor?**

Any person that is going to do work on a public swimming pool must be a Qualified Individual and licensed to perform work on public pools and their ancillary facilities. The following license types are necessary based on the scope of the work being done:

| LICENSE TYPE* | LICENSE DESIGNATION                 |
|---------------|-------------------------------------|
| C53           | SWIMMING POOL CONTRACTOR            |
| C61/D35       | POOL AND SPA MAINTENANCE CONTRACTOR |
| C36           | PLUMBING CONTRACTOR                 |
| C35           | LATHING AND PLASTERING CONTRACTOR   |

\*Contractor may perform work as listed in license description- see below link.

Contractors State Licensing Classifications: [Licensing Classifications](#)

**6. What happens if I perform a minor remodel/renovation without obtaining the necessary permits?**

State law requires that the plans for all proposed work be reviewed and approved prior to any construction taking place. If a site conducts construction work prior to obtaining approval by DEHQ, the pool will be subject to closure by this Department and reinspection fees may apply to reopen the pool once approved to do so.

**7. Are there any specific inspection requirements after completing a minor remodel/renovation?**

A minor remodel gets one inspection that is conducted when the work is completed and the water chemistry is balanced.

A minor renovation gets two inspections; the first inspection is conducted prior to covering the exposed plumbing to include sumps for Suction Outlet Fitting Assembly (SOFA) and the second inspection is conducted when the work is completed and the water chemistry is balanced.

**8. What documentation do I need to keep after the remodel/renovation is complete and inspected?**

Maintain all approved plans and final inspection reports indicating that the work was reviewed, and final approval was granted to operate the pool.

**9. If my pool was built before certain code changes, am I required to bring it up to the current standards during a minor remodel?**

Yes, as part of the project scope, all areas within that scope of work that are not compliant with current code requirements must be updated and reflected on the submitted plans.

**10. Do I have to submit plans if I am replacing existing equipment with new equipment that is the exact same make and model of the equipment that I am replacing?**

No. Prior to making the changes, verify that the equipment that is being replaced is actually documented as being approved by this Department. You can do this by checking your copy of previously approved DEHQ plans. If you do not have these plans you can check with the contractor who performed the previous work to provide you with a copy. You may also submit to DEHQ a [public records request](#).

**11. I'm replacing a portion of the pool enclosure that had been installed prior to 1994, does this new enclosure need to be up to current code?**

Yes, if the replacement sections are not the exact duplicate of the existing enclosure. If less than 50% of the enclosure is being modified or replaced only those sections need to be brought up to current code. It is highly recommended that the entire enclosure be brought up to code to reduce the likelihood of unauthorized entrance by a child into the pool area. If more than 50% of the enclosure is being modified or replaced, then the entire enclosure must be brought up to current code.

**12. My pump motor needs replacement. Can I replace the motor without plan submission?**

You may replace the motor without plan submission so long as the motor selected is an approved replacement part by the manufacturer and/or exact duplicate of the motor being replaced. Replacing the motor with another motor not approved by the pump manufacturer invalidates the NSF 50 certification of the pump and would make the pump an unapproved piece of equipment for use on the pool, which would then require the need to install a new pump and requires plan submission/approval prior to doing so.

**13. If my pool/spa has a single main drain and the project scope is for a resurface, do I need to split the main drains?**

Current code allows for a pool/spa with a single main drain to operate in conjunction with an approved Suction Vacuum Release System (SVRS). As long as an SVRS system is installed and functional, the drains do not need to be split. However, splitting the main drain is preferred because it will no longer rely on a mechanical part that can fail, increasing the risk of entrapment within the pool/spa. During the plan review process, if a main drain is not being split and an SVRS is not installed, or is inoperable, then a new SVRS must be installed on the recirculation system prior to approval being granted to operate the pool/spa.

**14. My main drain is sealed and not working, do I still need to provide an approved cover?**

State law requires that all commercial pools have a functioning main drain. If the drain on your pool/spa is sealed and blocked, the main drain must be restored and have approved covers on them.

## **II. Suction Outlet Fitting Assemblies (SOFA)**

**15. Why are there new requirements related to new and existing Suction Outlet Fitting Assemblies?**

The previous standard was updated in 2021 to add further protections for drain cover and sump installations to prevent serious injury and death due to evisceration, body blockage of the drain, or hair entanglement.

**16. When do the new Suction Outlet Fitting Assembly standard requirements apply in San Diego County?**

The standard requirement will be enforced on October 1, 2025.

**17. Where can I find the ANSI standard regarding Suction Outlet Fitting Assemblies?**

The standard is ANSI/APSP/ICC-16 2017. It can be found here: [2017 ANSI/APSP/ICC-16 American National Standard for Suction Outlet Fitting Assemblies \(SOFA\) for Use in Pools, Spas and Hot Tubs - CONTENTS](#)

**18. When were the Suction Outlet Fittings Assembly (SOFA) standards last updated?**

The ANSI/PHTA/ICC-7 was last updated in 2020. The ANSI/APSP/ICC-16 was last updated in 2017.

**19. When do I have to replace the pool main drain covers?**

Replacement of the pool suction outlet fitting/covers is based on manufacturer product end of life data. Typical drain cover replacement is every 5 years. Check with the manufacturer for product expiration.

**20. Can I replace the drain covers for the exact duplicate?**

It may be possible to replace the drain covers for the exact duplicate. However, this is probably unlikely as all new drain covers have been tested to the newer standard thus an older drain cover does not have a duplicate cover.

**21. If I replace the drain covers due to the manufacturer product end of life data, do I have to comply with the current standard?**

Yes, any drain cover replacement would need to comply with all current standards.

**22. Can I just replace the cover and not modify the sump?**

It depends on the sump configuration and if that sump configuration matches the manufacturers sump requirements. The old standard required that the sump depth to be at least 1.5 times the diameter of the pipe. However, the updated standard has multiple variations for sump configurations based on manufacturer testing and installation requirements. To note: per the Consumer Protection Safety Commission (CPSC), placing an unblockable cover over a blockable size sump will not render that drain unblockable.

**23. If the drain covers are replaced, what do I have to do?**

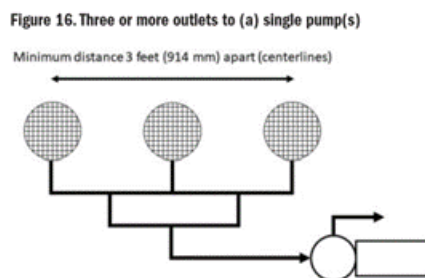
Facility operator must submit documentation to DEHQ for review, approval, and inspection. Any new drain covers and drain sumps must comply with the current SOFA standards. See DEHQ submittal [template](#).

**24. Do I have to modify the sump even though the cover meets or exceeds the pump(s) flow rate(s)?**

It is likely that the sump must be modified to meet the manufacturer's sump details. Check with the manufacturer for installation requirements.

**25. The existing pool shell does not allow for any modification of sumps for the drain cover I would like to use. What can I do?**

- Option 1: Find a cover where the manufacturer required pipe and sump configuration matches existing condition.
- Option 2: Install a sumpless drain cover and modify the existing sump to meet sumpless drain cover manufacturer instructions.
- Option 3: Add a third sump and drain based on the ANSI/PHTA/ICC-7 2020 standard and match the covers to the following.



Assuming one drain is blocked, the ASME/ANSI rated flow through each unblocked drain cover is at least:

Two drains (one blocked) = each rated at total system flow

Three drains (one blocked) = each rated at 1/2 total system flow

Four drains (one blocked) = each rated at 1/3 total system flow

# of drains (one blocked) = each rated at total system flow/(# of open drains)

**26. There are two or more suction outlets from the same sump/drain configuration and I cannot find a cover that meets or exceeds the combined flow rates.**

- Option 1: Modify the sumps to meet current SOFA standards.
- Option 2: Split the pump suction outlets to two or more split suction outlets configurations, resulting in two or more dual drains.
- Option 3: Relocate one of the sumps to a different plane base on the ANSI/PHTA/ICC-7 2020 standard.

Figure 14. Dual outlets on different planes

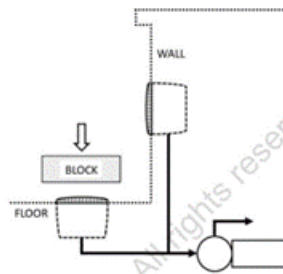
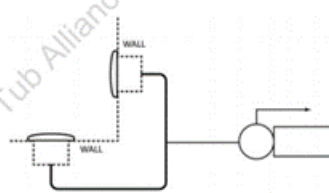


Figure 15. Dual outlets on separate vertical walls (aerial view)

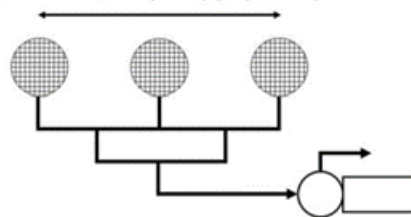


**5.3.1 Blockable outlets–dual separation.** Dual outlets shall be separated by a minimum of 3 feet (914 mm) measured from center to center of the Suction Outlet Fitting Assembly (SOFA) (see Figures 11, 12, and 13) or located on two (2) different planes, i.e., one (1) on the bottom and one (1) on the vertical wall, or one (1) each on two (2) separate vertical walls (see Figures 14 and 15). Suction outlets shall not be installed in seating areas.

- Option 4: Add a third sump and drain based on the ANSI/PHTA/ICC-7 2020 standard and match the covers to the following.

Figure 16. Three or more outlets to (a) single pump(s)

Minimum distance 3 feet (914 mm) apart (centerlines)



Assuming one drain is blocked, the ASME/ANSI rated flow through each unblocked drain cover is at least:

Two drains (one blocked) = each rated at total system flow

Three drains (one blocked) = each rated at 1/2 total system flow

Four drains (one blocked) = each rated at 1/3 total system flow

# of drains (one blocked) = each rated at total system flow/(# of open drains)

## 27. How do I select a suction outlet fitting assembly or drain cover?

- The SOFA and drain cover(s) would need to meet or exceed the max flow rate of the pump(s). To determine the max flow rate of the pump see the following:
  - Single Speed Pump

- Step 1: Install the vacuum gauge, pressure gauge, and flow meter (based on manufacturer installation) on the recirculation system. See [presentation](#) for gauge and meter placement location.
  - Step 2: Backwash or clean the filter.
  - Step 3: Take the flow meter reading and record it. Or, take the vacuum and pressure gauge readings and calculate the total dynamic head (TDH). See [presentation](#) for TDH calculation. Utilizing the manufacturer pump curve and the TDH, determine the flow rate.
  - Step 4: Find a SOFA and drain cover(s) that meets or exceeds the pump/system flow rate.
- Variable Speed Pump
    - Step 1: Install the vacuum gauge, pressure gauge, and flow meter (based on manufacturer installation) on the recirculation system. See [presentation](#) for gauge and meter placement location.
    - Step 2: Backwash or clean the filter.
    - Step 3: Run the pump at the highest speed possible before the system cavitates.
    - Step 4: Quickly take the flow meter reading and record it. Or, take the vacuum and pressure gauge readings and calculate the total dynamic head (TDH). See [presentation](#) for TDH calculation. Utilizing the manufacturer pump curve and the TDH, determine the flow rate.
    - Step 5: Find a SOFA and drain cover(s) that meets or exceeds the recorded max flow rate.

### III. System Monitoring & Flow Rate Requirements

#### 28. I do not have a vacuum gauge or pressure gauge. Do I need to install one?

Yes, state law requires that a pressure and vacuum gauge shall be provided for each pump system.

#### 29. Why is a vacuum gauge and pressure gauge important?

The vacuum gauge and pressure gauge provide important readings to help determine the recirculation system's actual flow rate, and are used in determining the pump's maximum flow. This information is a key tool for the pool operator to determine if the system is meeting the minimum requirements for turnover of the water in the pool/spa, and helps determine when equipment needs to be replaced. The pool contractor can use these readings to properly size pumps, filters, and suction outlet fitting assemblies.

#### 30. Where should the vacuum and pressure gauges be installed for optimal readings?

Pressure gauges should be installed on the recirculation system after the pump. Vacuum gauges should be installed on the recirculation system before the pump. The pump itself typically has ports for these gauges and they can be mounted there.

*Note: Each gauge shall have a scale range approximately 1 ¼ times the maximum anticipated working pressure or vacuum and shall be accurate within 2 percent of scale. The pressure gauge located on the filter shall be marked with the clean start up pressure reading."*



## IV. Equipment Replacement

### 31. How do I know that the equipment I am installing is the exact same make and model approved by DEHQ?

Contractors and installers should check with the pool permittee to see if they have a copy of DEHQ approved plans showing the equipment they are intending to replace. Contractors and installers may also request a copy of plans with DEHQ by submitting a [public records request](#). If there are no plans on file and the site does not have a copy of previously approved plans, then plan submission is required. You may use the following [minor remodel/renovation submission package](#) to submit your plans.

### 32. What are the approved NSF/ANSI 50-2012 certified equipment manufacturers?

DEHQ does not keep a list of all equipment that is NSF/ANSI 50-2012 certified. You can search the [NSF website](#) to find out if the equipment you are interested in is listed. Also, prior to purchasing equipment, you can check the manufacturer's specification sheet and/or installation instructions which are typically found on the manufacturer's or retailer's website. Any certifications will be listed in those documents.

### 33. Are there any specific requirements for replacing pool lighting?

Submit plans, specification sheet, and pay the minor remodel fee. The minor remodel/renovation submission package can be found here: [poolpackagetable app.pdf](#). The fee is listed here: [FEE SCHEDULE PERMITS AND PLAN CHECK](#).

Plans must show details of where the new light fixture is being installed. The color of the light must be white. Lighting must be sufficient to illuminate all areas of the pool with no blind spots. The light fixture must be sealed to the pool wall with no gaps between them. The light fixture shall be protected by a ground fault interrupter in the branch circuit. All electrical work must be performed by a licensed electrician.

### 34. What are the requirements for replacing skimmers during a minor remodel?

Submit plans, specification sheet, and pay the minor remodel fee. The minor remodel/renovation submission package can be found here: [poolpackagetable app.pdf](#). The fee is listed here: [FEE SCHEDULE PERMITS AND PLAN CHECK](#).

Plans must show details of where the new skimmer assembly is located as well as the plumbing tie ins. If the existing skimmer has a single equalizer line then it either needs to be completely removed or it must be split into two equalizer lines in a "T" with a minimum separation of at least 3 feet. Installed covers shall be in compliance with ANSI/APSP/ICC-16 2017 standard or successor standard.

### 35. Are there specific requirements for pool heater replacement?

Submit plans, specification sheet, and pay the minor remodel fee. The minor remodel/renovation submission package can be found here: [poolpackagetable app.pdf](#). The fee is listed here: [FEE SCHEDULE PERMITS AND PLAN CHECK](#).

Typically, a permit is required through the local building department as well. Check with your local building department to determine if a permit is needed for installation.

Plans must show details of heater installation including valves, thermometer, pipe sizes, and material specifications. Plans should also show a bypass valve typically positioned so that not all flow is directed into the heater and allows isolation or removal of the heater from the system when needed. Pool heaters might have an internal bypass valve and this should be indicated on the plans if that is the case.



**36. If my pool has an automatic chemical feeder, are there any specific standards or requirements for replacement or repair?**

All pool recirculation systems are required to have an automatic chemical feeder for disinfection. Plans are not required for repair or exact duplicate replacement of the previously approved automatic chemical feeder. If a new and different automatic chemical feeder is proposed then plans must be submitted and approved prior to installation.

Submit plans, specification sheet, and pay the minor remodel fee. The minor remodel/renovation submission package can be found here: [poolpackagetemplate\\_app.pdf](#). The fee is listed here: [FEE SCHEDULE PERMITS AND PLAN CHECK](#).

**37. I have a single speed pump and want to switch it out for a variable speed pumps. If the pump is the same size pump (horsepower), is this considered like for like?**

This would not be considered a like-for-like equipment change and would need to go through the plan submittal process. Exact duplicate means the exact same make and model as the equipment or part being replaced.

**38. What are the rules regarding saltwater chlorinators and their replacement?**

The equipment must be certified to NSF/ANSI 50 standards. Like all disinfectant feeders, saltwater chlorinators (also known as salt generators or salt chlorine generators) must be capable of providing a minimum equivalent to 3lbs of 100% chlorine per 10,000 gallons per day.

## **Resources**

For additional information, please visit the Department of Environmental Health and Quality's Pool Plan Check webpage at:

<https://www.sandiegocounty.gov/content/sdc/deh/fhd/pool/poolplanchek.html>

If you have any questions that have not been answered in these FAQs, or if additional clarification is needed, please contact the DEHQ-FWHD Plan Check Duty Specialist at (858) 505-6659 or by email at [plnchk@sdcounty.ca.gov](mailto:plnchk@sdcounty.ca.gov).