

Seattle Fire Prevention Division

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Fire Pump Permitting and Inspections Including Like-for-Like Replacement

In Seattle, the installation of a new fire pump requires a Fire Suppression (-FS) permit with a Seattle Fire Department (SFD) inspection, and many permits require SFD plan review. Permits are available from the [Seattle Services Portal](#). A pump can be included on the overall sprinkler permit and a separate pump permit is not required.

Pump projects that meet the following criteria may use the over the counter (OTC) permit with no plan review. However these projects will require an acceptance test witnessed by SFD, and you will need to meet current codes including bringing pump room up to current codes, so you may prefer to have plan review to know what the requirements will be for acceptance. In this case, in your permit application please describe your project as the installation of a new pump, so that you will obtain a permit with plan review.

1. **Replacement pump - pump is 250 gpm or less** An OTC permit is allowed where a listed fire pump with capacity of 250 gpm or less is being replaced with another listed pump of the same capacity as the original fire pump, and no sprinklers are being added or modified. This includes replacement of foam pumps or pumps for water mist systems that are 250 gpm or less.
2. **Replacement with like-for-like pump** An OTC permit is allowed where the fire pump replacement project is using a like-for-like pump, technology and capability, and no sprinklers are being added or modified. See the Frequently Asked Questions section for guidance on what meets the definition of "like-for-like pump technology and capability".

Repairs and maintenance on existing pumps do not require a permit with one major exception: if you are changing a critical component like the impeller, gear drives, controller or motor, a permit with plan review along with SFD inspection to witness an acceptance test is required (except for the two exceptions above which can receive an OTC permit). The -FS permit is not needed for replacement of pressure maintenance pumps also known as jockey or make-up pumps, or for the replacement of pumps supplying NFPA 13D or P2904 fire sprinkler systems.

Pump Acceptance Testing

Acceptance testing is required at the time of installation for all listed fire pumps required to supply water to an NFPA 13 or 13R sprinkler system. Another acceptance test, sometimes called "reacceptance testing", is required whenever replacement, change, or modification to a critical path component is performed on a fire pump, driver, or controller, as described in NFPA 20, Section 14.5.2.5. The acceptance test shall be conducted by the pump manufacturer, factory-authorized representative, or qualified persons acceptable to the authority having jurisdiction (NFPA 20, Section 14.5.2.6). Repairs to

pumps that are less significant than the NFPA 20, Section 14.5.2.5 criteria, do not require a permit and do not require (re)acceptance testing witnessed by SFD.

SFD Inspections and Permit Close Out

An SFD inspection to witness pump acceptance testing is required in order for your permit to be closed out, for pumps supplying water to NFPA 13 and 13R systems. This may be bundled with your sprinkler system inspection or called for separately. Permit holders are responsible to schedule their inspection using SFD's [online request form](#). Please request your inspection 2-3 weeks in advance. More guidance on inspection preconditions and requirements is provided below.

Frequently Asked Questions

1. What Counts as “Like-for-Like” Pump Replacement?

To be considered “like-for-like” and qualify for an OTC permit, all conditions below must be met.

- The original fire pump data nameplate is available. If the pump data nameplate is not available, then a plan review permit is required for the replacement fire pump.
- The original fire pump was listed as a fire pump. If the original pump was a domestic pump used for fire protection purposes, then a plan review permit for the replacement pump is required.
- The replacement fire pump is from the same manufacturer as the original.
- The replacement fire pump is of the same gallons per minute (gpm) and pressure as the original.
- The technology of fire pump is the same: driver (diesel or electric), shaft design (horizontal or vertical), and type (such as horizontal split case, vertical split case, vertical turbine, positive displacement, rotary, etc.)
- There are no changes to system piping before the suction flange nor after the discharge control valve. Minor changes of piping, such as the inclusion of short spool pieces are acceptable.
- The fire pump being replaced is not a variable speed fire pump.
- The fire pump is not part of a fire pump in series, e.g. a fire pump supplying another fire pump.
- Like for like replacement projects must meet all current code requirements for the pump room and the pump itself. If issues with the sprinkler or standpipes are noted, this will not prevent approval of the pump project and will be noted on a separate enforcement process with the building owner.

2. Do I Need to Bring the Pump Room and Pump Up to Current Codes When I Am Replacing a Pump?

Yes, you do need to meet current operational provisions of the current code, such as provisions for heat, emergency lighting, and similar. However, you do not need to upgrade construction-related items such as increasing the rated construction of walls or providing overflow protection for fire water tanks.

3. What Do I Need to Include with My Permit Submittal Related to the Pump?

If you are replacing a pump, type in “FIRE PUMP REPLACEMENT” in the project description box in the permit application in the Seattle Services Portal. If the project involves like-for-like replacement or a pump <250 gpm, please indicate that as well. Provide documentation of the original pump that is being replaced – original approved plan set and/or original pump acceptance paperwork completed by the

pump manufacturer representative, and/or picture of pump and nameplate or manufacturer plate with pump specifications. If pursuing like-for-like replacement permitting, other documentation confirming compliance with the like for like conditions list above.

If you are modifying a pump, type in “FIRE PUMP MODIFICATION” in the project description box in the permit application in the Seattle Services Portal. Include a statement as to whether the project is or is not changing critical components (NPFA 20, Section 14.5.2.5).

If you are installing a new pump, type in “FIRE PUMP INSTALL” in the project description box in the permit application in the Seattle Services Portal. Plans should include the pump information required in NFPA 20 Chapter 4 including but not limited to Section 4.2. If you are submitting the pump information in conjunction with plans for a sprinkler system, please see [SFD Info Sheets](#) on Sprinklers Permitting and Inspections, and Fire Flow and Hydrants.

4. What Are the Preconditions for a Pump Inspection?

Inspection Pre-Requisite	Modification that Does Not Affect Critical Components	Modification Affecting Critical Components or Install/Replacement
Permits	-FS permit issued	-FS permit issued
Printed and Stamped Plans on Site	Yes, except if OTC permit was issued	Yes
Other Documents on Site		Documentation related to like for like replacement, if applicable
Personnel on site (to be coordinated by the person requesting the inspection)	<ul style="list-style-type: none"> SFD Certified FP-1 or FP-ITM depending on scope Manufacturer rep (for replacement pumps) 	<ul style="list-style-type: none"> SFD Certified FP-1 or FP-ITM depending on scope Manufacturer rep (for new and replacement pumps) If replacing a controller, an SFD certified FA-1

5. What Are the Requirements to Pass a Pump Inspection?

Requirements to Pass	Pump OTC	Pump w/Plan Review
Pass a (Re)Acceptance Test?	Yes, if pump is replaced (only allowed on OTC for small or like for like).	Yes, if pump is replaced or critical components are modified (NFPA 20, 14.5.2.6)
Acceptance Test Paperwork	If acceptance test is witnessed, contractor to document results and include in contractor’s signed record of test results to be included in the system documentation provided to the building owner (summary of tests, pump curve, and statement of system readiness) and provided to the SFD inspector upon request.	
Other Documents on Site	Manufacturer’s Installation and Operation manuals available for building owner.	Manufacturer’s Installation and Operation manuals available for building owner.
Tagging	Pump properly tagged with non-expired white tag on pump controller, see Seattle Fire Department Administrative Rule 9.02 .	Pump properly tagged with non-expired white tag on pump controller, see Seattle Fire Department Administrative Rule 9.02 .

Signage	Per NFPA standards	Per NFPA standards
Other Functional/Visual Tests	At the discretion of your inspector	At the discretion of your inspector

6. What Other Permits, Trades or Agencies May Be Involved When Modifying or Replacing a Fire Pump?

- Replacement of the fire pump itself, not including the driver or the controller, does not typically require involvement of other trades or permits. Customer to confirm.
- Replacement of the driver will like require an electrical permit (-EL permit) and/or other permitting if using diesel. Customer to confirm.
- Replacement of the controller will require an electrical permit and, if the controller is monitored by the building fire alarm system, would require the involvement of a fire alarm company due to the controller being monitored by the building fire alarm system (if present).
- Possible King County plumbing permits. Customer to confirm.

How Long Does It Take?

Our plan review time for your permit depends on how complex your project is and the quality and completeness of your original application, with a rough estimate of 2-5 weeks after submittal. Please arrange for your SFD inspection early, we are scheduling inspections 2-4 weeks out due to staffing levels.

Still Need Help?

Ask Us Email SFD_FMO_Engineering@seattle.gov

Online [Seattle Building Code](#), [Seattle Fire Code](#), [Seattle Energy Code](#)

Seattle Fire CAM 5002, [Electronic File Standards - Shop Drawings for Fire Protection Systems](#) and CAM 5966, [The Engineering Inspection Process](#)

[SFD Administrative Rules](#) including 9.03 “Automatic Sprinkler and Standpipe Systems”

[SFD Info Sheets](#) on Pumps, and Fire Flow and Hydrants

[NFPA Standards](#)

[SDCI Director’s Rules](#)