



Elevator Safety Program - Technical Clarification

Equipment: Passenger/Freight Elevators (Revised 2-2019)		Topic: TC 18-10 Sump Pumps & Drains (Code Transition Issue)
December 21, 2018	#: 18-10	Code/Rule: ASME A17.1-2016/CSA B44-16, 2.2.2.5 & WAC (2014) 296-96-02560

Issue: The new rules and code requirements went into effect October 1, 2018. The new code requirements for sump pump and drains differs considerably from the former WAC rule. Some buildings were designed and, in some cases, partially constructed under the former WAC rule even though the elevator contractor had not been selected or made application prior to October 1, 2018. Therefore, buildings caught in this transition period between the old and new requirements may not be able to conform to the latest code requirements for sump pumps, drains, and related piping from pits. The department has recognized there needs to be some transitional considerations to allow buildings under construction to abide by the former WAC rule in lieu of complying with the latest ASME A17.1/CSA B44 elevator code.

Concerns: How will an inspector know which standard is to be used when evaluating the pit sump pump or drain condition and how it might affect building owners during future inspections?

Clarification: The following requirements are recreated here for clarification:

If construction commenced prior to 10/1/2018:

WAC 296-96-02560 What are the requirements for submersible pumps or sumps?

- (1) Sump pumps and drains are not required in most elevator pits. Sump holes must be installed and measure a minimum of eighteen inches by eighteen inches by eighteen inches. If drains or sump pumps are installed, they must not be directly connected to sewers and/or storm drains. P-traps and check valves are not allowed. All installations must meet the NEC and all plumbing codes. Drains meeting the above requirements may be installed in lieu of sump holes. Sump hole covers must be designed to withstand a load of three hundred pounds per square foot.
- (2) ASME A17.1-2.2.2.5 Elevators that are provided as fire service access elevators (one hundred twenty feet) or occupant evacuation elevators (four hundred feet) a drain or sump pump shall be provided. The sump pump or drain shall have the capacity to remove a minimum of three thousand gallons/hour per elevator and meet all requirements in ASME A17.1, ICC, and this chapter.

EXEMPTION: Residential elevators, vertical platform lifts, and special purpose lifts are exempt from this section.

If construction commenced on or after 10/1/2018:

ASME A17.1-2016/CSA B44-16 (elevator code)

- 2.2.2.3 Permanent provisions shall be made to prevent accumulation of groundwater in the pit (see 2.1.2.2).
- 2.2.2.4 Drains and sump pumps, where provided, shall comply with the applicable plumbing code, and they shall be provided with a positive means to prevent water, gases, and odors from entering the hoistway.
- 2.2.2.5 In elevators provided with Firefighters' Emergency Operation, a drain or sump pump shall be provided. The sump pump/drain shall have the capacity to remove a minimum of 11.4 m³/h (3,000 gal/h) per elevator.
- 2.2.2.6 Sumps and sump pumps in pits, where provided, shall be covered. The cover shall be secured and level with the pit floor.

Action Required: The following action is required to help coordinate this transition:

1. During the acceptance inspection for the conveyance(s), the elevator inspector is to request a copy of the building permit [or proof of when the initial building permit application was made](#) to determine the "construction start date". The construction start date is considered to be with excavation of the site (e.g. received an LDA [Land Disturbing Activity] permit), [upon initial building permit application date, or the building permit issue date](#).
2. If the construction start date was [prior to 10/1/2018](#), WAC 296-96-02560 rule will apply.
3. If the construction start date was on or [after 10/1/2018](#), the ASME A17.1/CSA B44, 2.2.2.3 through 2.2.2.6 will apply.
4. Where it can be documented that the building permit date or [building permit application date](#) was on or after 10/1/2018, but the building was designed to the former WAC rule, and it is not technically feasible to comply with the ASME code, an application for a variance will be considered.
 - a. The documentation supplied with the variance request shall clearly illustrate the difficulty incurred in providing a plumbing solution that would comply with ASME A17.1/CSA B44, 2.2.2.3 through 2.2.2.6. It shall also demonstrate the original design of the pit was based on the WAC 296-96-02560.

5. A copy of the building permit or [building permit application](#) and other relevant documentation will be permanently posted in the machine/control room for Items 1 & 2 above. There is no need to post compliance with ASME A17.1/CSA B44, 2.2.2.3 through 2.2.2.6 since a pump or drain will have been installed in the pit and compliance is apparent.
6. If a variance is necessary and is granted under Item 4, the variance shall be permanently posted in the machine/control room as is required for all variances

Questions may be directed to:

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Reviewed by Technical Specialists