

Battery Venting, Key Word “Branch”

By Joseph P. Guzzo

As I have stated before, *“the proper working operation of the drainage system depends on the venting system.”* *“Venting the drainage system incorrectly is like having no vent at all.”* It seems to me that most of the difficulty plumbers have with venting design is correctly venting a horizontal drain. Flat vents were mentioned in a previous article. Another problem area is battery venting. So without offending anyone, for which at times I have been accused of, let’s just say much of the battery venting I have seen in the field is very interesting. Without getting into great detail lets go back to the basics.

Battery venting is covered under section 10.16,11. Two methods are called Circuit and Loop. There are also excellent detailed drawings showing all types of circuit and loop venting designs. Sketches are located in the back of 248 c.m.r. with others. The one single most important part of a battery vent is that the horizontal drain which is to be battery vented must originate from a stack as a **BRANCH**. If it is not a branch it cannot be battery vented. We are going to take a close look at the sketch on page 224 figure #7. The goal with battery venting is to provide a continuous circulation of air through the horizontal branch that floor fixtures are connected to. Let’s start with the second floor Loop Vent, it’s exactly like it sounds. The air starts at the stack through the horizontal branch and circulates through the vent between the last two fixtures and loops back to the stack providing a continuous flow of air, thus the horizontal drain is now also the vent. The circuit vent shown on the first floor does not loop back but connects to another vent stack. The term is used in electrical wiring, *“completing a circuit.”* The result is a continuous flow of air through the horizontal branch all the time.

All floor mounted fixtures taken off the battery may not exceed the maximum length from trap to vent, 5,6,8,10. For example the 2” floor drain shown in the sketch may not exceed 6 ft., simply because the drain is also the vent. On one particular job I inspected, the plumber had taken a 3” drain off the battery and ran it 35ft. to a floor drain. I asked him where the vent was, he said it was battery vented. I said OK, but the vent is 35ft. away from the trap. He said oh.

Any wall hung or wall outlet fixtures must comply with section 10.16, 11,a,4, *“when wall hung or wall outlet fixtures such as urinals, lavatories, or similar fixtures discharge into the horizontal battery branch, the fixture waste from these fixtures shall be individual or common vented.”* The one exception to battery venting other than floor mounted fixtures can be found in section 10.13 Special Wastes. The theory for a loop or circuit vent for lab sinks is the same, to provide a continuous flow of air through the horizontal branch. For proper battery venting of lab sinks refer to drawings, figures #10 and #11.

There are many other details to battery venting. But if you just stick to the basics, the design and theory is so simple that when explained correctly it’s like someone turned on the light and it’s like “now I see.”