



### **INSTRUCTIONS FOR COMPLETION OF POOL DRAIN SAFETY COMPLIANCE DATA FORM**

Please review the instructions below to ensure the Pool Drain Safety Compliance Data form is properly completed with all required information. All components must be field verified and approved by Buncombe County Environmental Health prior to the issuance of an operation permit in accordance with Rule .2539(c).

**FORM COMPLETION** – A separate Pool Drain Safety Compliance Data form must be completed and submitted each year for each individual pump system at each individual body of water located at a facility including spas, wading pools, and other regulated pools.

This form should be completed by the pool owner, pool operator, or someone representing the owner or operator. The Health Department understands that the required information and/or measurements may be beyond the scope of owners or operators. In those cases, it is recommended that you contact a Registered Design Professional (Professional Engineer or Licensed Architect) or a knowledgeable pool professional to assist you in completing the form.

1. **PUMP INFORMATION** – Enter the pump manufacturer, model #, and horsepower. Enter the maximum flow from the manufacturer’s pump performance curve. Various pump curves may be found online at <https://www.buncombecounty.org/common/health/pump-identification-with-pump-curves.pdf> or on the pump manufacturer’s website.
2. **DRAIN COVER/GRATE DATA** – Enter the number of drains on pump and check the appropriate box for the manufactured date of the drain covers. Enter the manufacturer, make, model, lifespan, location of installation, and maximum flow rating of cover. Enter the date the drain covers were installed and the expiration date of the drain cover(s). Information on various approved covers that were manufactured prior to May 24, 2021 may be found online at <https://www.buncombecounty.org/common/health/vgb-approved-drain-covers-and-equalizer-covers.pdf> or on the drain cover manufacturer’s website. Please note that drain covers manufactured on or after May 24, 2021 will likely have different flow ratings from previous versions of that same drain cover that will depend on sump dimensions and suction pipe sizes. Additional documentation of flow ratings from the manufacturer must be provided if cover is manufactured on or after May 24, 2021. If your pool has one main drain, complete the “single main drain,” section and then complete the “secondary form of bather entrapment,” section #4, if applicable. If your pool has more than one drain, complete the “multi drain system,” section. If the distance between the main drain covers measures less than 3 ft, center to center, complete the “secondary form of bather entrapment,” section #4.
3. **DRAIN SUMP MEASUREMENTS** –The drain sump is the area under the drain cover. Measurements are needed to determine the size of the cover/grate and to assure the sump is deep and wide enough to meet the requirements in the cover/grate manufacturer’s specifications. If the sump is a manufactured sump, fill out the manufacturer and model #. In order to take required measurements, the drain cover will need to be removed. Measure the size of the sump: diameter if round; length and width if square/rectangle. Measure the sump depth. The sump depth is how much distance is between the bottom of the sump and the pool floor. Measure the suction pipe size. The suction pipe size is the inside diameter of the pipe that carries the water to the



pump, directly under the drain cover. Next, measure the distance between the highest point of that same suction pipe and the top edge of sump. When measuring the distance from the suction pipe to the top edge of the sump, take a straight edge and place it across the frame on the pool floor so that you get a clear visual reading of the distance on the tape measure where it intercepts the straight edge. The orientation of the pipe to sump is where the suction pipe connects to the sump. If it comes in on the side of the sump, check “side outlet,” if it comes in on the bottom of the sump, check “bottom outlet.”

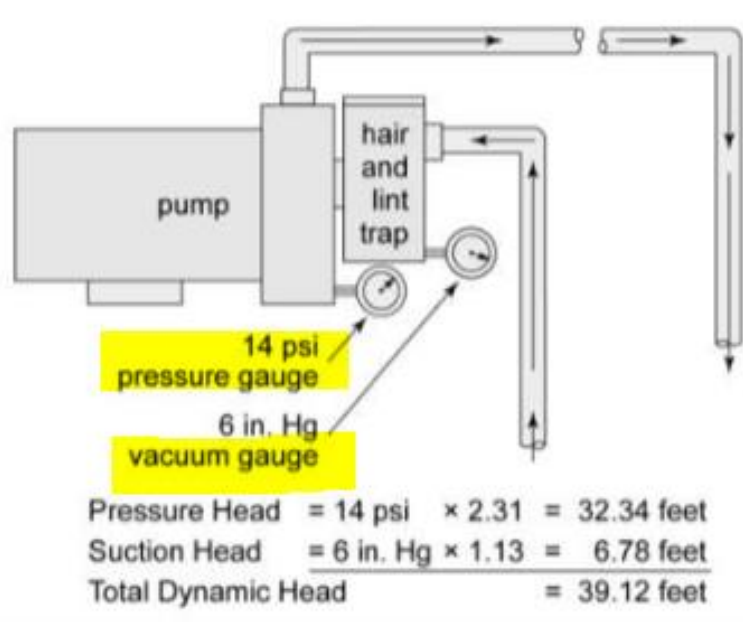
4. **SECONDARY METHOD OF PREVENTING BATHER ENTRAPMENT** – a Safety Vacuum Release System (SVRS) is required if dual drains are closer together than 3 feet from center to center or if the pump has a single main drain with a blockable cover or blockable sump. Enter the manufacturer, make, and model number of the SVRS. If using another secondary method of preventing bather entrapment allowed in Rule .2539(b), please attach documentation. If your pool does not require a secondary method of preventing bather entrapment, check the N/A box.
5. **EQUALIZER COVERS** – If your pool is exempt from this section due to being constructed without equalizers, or if all the equalizers in the pool have been disabled, check the appropriate box. If the skimmer equalizers are plugged, they must be plugged BOTH under the skimmer basket AND on the pool wall to be considered disabled. If your pool has operable equalizers, notate the number and fill out the manufacturer, make, model, and lifespan of the equalizer cover. Check the location and fill out the maximum flow rating of the equalizer fitting. Information on various approved covers that were manufactured prior to May 24, 2021 may be found online at <https://www.buncombecounty.org/common/health/vgb-approved-drain-covers-and-equalizer-covers.pdf> or at the equalizer cover manufacturer’s website. Fill out the pipe size of the equalizer line by using the inside diameter of the pipe that the cover is attached to and record the date of installation and expiration date of the cover(s). In lieu of using approved equalizer covers, equalizer lines may be disabled. Instructions on how to properly disable skimmer equalizer lines may be found at <https://www.buncombecounty.org/common/health/disabling-skimmer-equalizer-lines.pdf>. If disabling equalizers by plugging the holes, they must have a plug both under the skimmer basket **AND** on the side wall.
6. **VACUUM LINE** – Check the appropriate box regarding vacuum line ports.

**PUMP FLOW REDUCTION**-to be completed ONLY if the maximum pump flow under item #1 exceeds the maximum flow rating for the main drain cover(s) under item #2

Fill out only ONE side of the chart, EITHER section a. or b., but NOT BOTH. Provide photo evidence of a properly installed flow meter for either option.

a. For the “Calculated Total Dynamic Head (TDH) and Pump Curve,” method, you will use vacuum gauge and pressure gauge readings, to be taken after backwash and with the skimmer valve closed, to calculate TDH . You will need to install the vacuum gauge and pressure gauge properly, according to the APSP-2020 (see example on next page):





You will need to provide photo evidence of the installation of both the pressure gauge and vacuum gauge and the readings associate with each one, to be read after backwash and the skimmer valve close. Once you have calculated TDH according to the formula provided on the form, you will refer to the published pump curve for that pump and find that number on the vertical axis which will allow you to read the flow rate on the horizontal axis. This will calculate the maximum flow rate within approximately 10%. Further detailed instructions on how to utilize this method can be found in the American National Standard for Suction Entrapment Avoidance in Swimming Pools, Wading Pools, Spas, Hot Tubs, and Catch Basins ANSI/APSP/ICC-7 2020.

b. For the “True Flow Using Flow Meter,” method, fill out the flow meter type and model number and provide information on whether or not the pump has a VFD installed to regulate the pump flow. Provide the flow meter reading in gpm after performing a backwash and with the skimmer valve closed. Photo evidence of the flow meter reading as well as proper installation of the flow meter is required to be submitted along with the form.

The bottom of the chart is required to be filled out with either option. Once you have determined the reduced flow rate, enter it on the section “Maximum Pump System Flow reduced to \_\_\_\_\_.” This flow must be less than or equal to the maximum flow rating of the drain cover(s).

If you do not need to document a flow reduction for your pool because the maximum pump flow taken from the manufacturer’s pump curve does not exceed the maximum flow rating of the main drain cover(s), check the N/A box.

You must provide the name of the person filling out the form, sign and date.

