

### **15A NCAC 18E .0403 ADJUSTMENTS TO DESIGN DAILY FLOW**

(a) The authorized agent or the Department shall approve an adjusted DDF relative to the values in Table II of Rule .0401(b) of this Section for new or existing facilities in accordance with this Rule. The water use information provided to support the proposed adjusted DDF shall meet the requirements of Paragraphs (b) or (c) of this Rule and may be provided by the owner, designer, or PE. All adjustments to DDF shall meet the requirements of Paragraph (d) of this Rule.

(b) Adjustments to DDF based on documented data from the facility or a comparable facility, as described in Rule .0402(a) of this Section, shall meet one of the following criteria:

- (1) the submitted data shall consist of a minimum of 12 consecutive monthly total water consumption readings, and 30 consecutive daily water consumption readings taken during a projected normal or above normal wastewater flow month. A normal or above normal month is when the average flow equals or exceeds the mean of the 12 consecutive monthly total water consumption readings. The following calculations shall be done with the submitted data:
  - (A) a hydraulic peaking factor shall be calculated by dividing the highest monthly flow of the 12 monthly readings by the sum of the 30 consecutive daily water consumption readings. The hydraulic peaking factor shall not be less than one; and
  - (B) the adjusted DDF shall be calculated by multiplying the numerical average of the greatest 10 percent of the daily readings by the hydraulic peaking factor; or
- (2) the adjusted DDF shall be calculated by multiplying the highest of the 12 monthly readings by 1.5 and then dividing by the number of days in the month.

(c) Adjustments to DDF based on the proposed use of extreme water-conserving fixtures, which use less water than the fixtures required by the North Carolina Plumbing Code, shall be based upon the capacity of fixtures and documentation of the amount of flow reduction to be expected from their use in the proposed facility. Cut sheets of the proposed fixtures shall be provided to the LHD and the Department, as applicable.

(d) The proposed adjusted DDF shall account for projected increased constituent concentrations due to the reduction in water use. Calculations shall be provided to verify that the criteria in Rules .0402 and .1201 of this Subchapter are met.

(e) Pursuant to S.L. 2013-413, s.34, as revised by S.L. 2014-120, s.53, a PE may propose an adjusted DDF for new or existing dwelling units or facilities identified in Table II of Rule .0401(b) of this Section in accordance with the following:

- (1) DDF less than those listed in Rule .0401 of this Section that are achieved through engineering design that utilizes low-flow fixtures and low-flow technologies;
- (2) comparison of flow from proposed fixtures and technologies to flow from conventional fixtures and technologies;
- (3) the signed and sealed proposal shall account for the site-specific impact on the wastewater system based on projected increased constituent concentrations resulting from reduction in water use in accordance with Rule .0402(b) of this Section;
- (4) inspection of the existing wastewater system and verification that the system meets the Rules of this Subchapter and can accept the increase in constituent loading, as applicable;
- (5) proposed adjusted DDF for wastewater systems determined to be less than or equal to 3,000 gpd shall not require Department review in accordance with Rule .0302(e) of this Subchapter unless requested by the LHD; and
- (6) neither the Department nor any LHD shall be liable for any damages caused by a system approved or permitted in accordance with this Paragraph.

(f) A PE may propose, and the Department shall approve an adjusted DDF for a facility made up of individual dwelling units in accordance with this Rule when the following criteria are met:

- (1) DDF calculated in accordance with this Section is greater than 3,000 gpd;
- (2) adjusted DDF is based on information in Paragraphs (b) or (c) of this Rule; and
- (3) increase in wastewater strength is accounted for in accordance with Paragraph (d) of this Rule.

(g) Adjusted DDF based upon use of water-conserving fixtures shall apply only to design capacity requirements of the dosing system and dispersal fields. The DDF set forth in Rule .0401 of this Section shall be used to determine minimum tank and advanced pretreatment component capacities.

*History Note:* Authority G.S. 130A-335(e); S.L. 2013-413, s. 34; S.L. 2014-120, s. 53; Eff. January 1, 2024.