

HENRICO COUNTY DPU
FIRE FLOW ESTIMATE FORM

ISO (Insurance Service Office) Method of Calculating NFF (Needed Fire Flow)

ENGINEER: _____ DATE: _____

PROJECT NAME: _____ CALC. BY: _____

TYPE OF CONSTRUCTION: _____

Class of Construction Coef. = F : _____

GROUND FLOOR AREA = _____ # of Stories _____

Total Floor Area = A_i (effective area): _____

FIRE AREA CONSIDERED

Construction Factor $C_i = 18(F)(A_i)^{0.5}$ $C_i =$ _____
(ROUNDED TO NEAREST 250 GPM)

TYPE OF OCCUPANCY: _____

(Worst Case) Occupancy Factor = O_i : _____

EXPOSURE (X) AND COMMUNICATION (P):

$X_1 + P_1 =$ _____ $X_4 + P_4 =$ _____

$X_2 + P_2 =$ _____ $X_5 + P_5 =$ _____

$X_3 + P_3 =$ _____ $X_6 + P_6 =$ _____

$$(X+P)_i = 1.0 + \sum_{(i=1)}^n (X_i + P_i) =$$

[Max. $(X + P)_i = 1.75$]
(n = NUMBER OF SIDES OF SUBJECT BUILDING)

NEEDED FIRE FLOW

$NFF = (C_i)(O_i)(X+P)_i$ $NFF =$ _____

Automatic Sprinklers (YES ___ NO ___) Reduction Factor _____ % x NFF = _____

TOTAL: _____

Required Fire Flow - Rounded _____ gpm
(if < 2500 nearest 250)
(if > 2500 nearest 500)

* Fire Hydrants Required: _____

I CERTIFY THAT THE ABOVE INFORMATION IS TRUE AND CORRECT.

SIGNATURE: _____ P.E.

* COMMERCIAL AREA REQUIRES 350 FT. MAXIMUM HOSE LAY.

References: NFF CALCULATION PROCEDURE DESCRIBED IN A.W.W.A. M-31, I.S.O.'s 1980 COMMERCIAL FIRE RATING SCHEDULE AND I.S.O.'s 1980 FIRE SUPPRESSION RATING SCHEDULE.