EQUATION 6.23A (NEW)
MAXIMUM CONTROLLED EMISSIONS OF FC_I FROM ITS USE AS INPUT GAS

$$ES_{imax,f} = 0.8 \times Activity_{i,f} \times \left[1 - \left(a_{i,f} \times UT_f \times d_i\right)\right]$$

Where:

$ES_{imax,f}$ = maximum expected controlled emissions of FC_i from the fab from its use as an input gas during the sampling period, kg

$Activity_{i,f}$ = consumption of FC input gas i for facility f during the sampling period, kg

UT_f = total uptime of all emissions control systems for facility f during the sampling period, site-specific fraction as calculated in Equation 6.27

$a_{i,f}$ = estimate of the fraction of FC input gas i exhausted from process tools equipped with suitable emissions control technologies for facility f, site-specific fraction as determined in Equation 6.10

d_i = Destruction Removal Efficiency (DRE) for FC input gas i, fraction

i = FC input gas

f = facility

EQUATION 6.23C (NEW)
MAXIMUM CONTROLLED GAS-SPECIFIC EMISSION FACTOR FOR INPUT GAS FC_I

$$EF_{i,f} = 0.8 \times \left[1 - \left(a_{i,f} \times d_i\right)\right]$$

Where:

$EF_{i,f}$ = emission factor for FC input gas i and facility f representing a 20-percent utilization rate and 100-percent emissions control system uptime, kg emitted per kg of input gas consumed

$a_{i,f}$ = estimate of the fraction of FC input gas i exhausted from process tools equipped with suitable emissions control technologies for facility f, site-specific fraction as determined in Equation 6.10

d_i = Destruction Removal Efficiency (DRE) for FC input gas i, fraction

i = FC input gas

f = facility