

Construction Codes & Licensing Division – Building Plan Review unit

PLAN REVIEW POLICY

PR-06

Group I-3 Cell Ventilation

11/09

Based on the 2007 Minnesota State Building Code

Background:

The minimum required exhaust ventilation required by ASHRAE 62-2004 Table 6.4 for a cell with a toilet is 1 cfm per square foot of cell area. This is in addition to the minimum required outside air per occupant for ventilation. Since the typical cell is a minimum 80 square feet, this would require a minimum of 80 cfm. Although ASHRAE would allow this to be occupant initiated (i.e. switched), most of the time these type of facilities are usually designed for continuous operation (24/7) as well as 100% exhaust (no return air). The minimum exhaust ventilation for a public toilet room with one toilet is only 50 cfm despite serving multiple users throughout the day. The code also permits a private toilet facility under continuous exhaust to be reduced from 50 cfm to 25 cfm. Since one mandate for CCLD is the conservation of energy, the 1 cfm per square foot, with no listed reductions, not only increases the initial equipment cost but also results in a continual increased in energy cost associated with exhausting an excessive volume of conditioned air.

Policy:

In accordance with M.R. 1300.0110 subp. 12,

For cells in group I-3 occupancies the minimum exhaust may be 50 cfm provided: the cell is used by a maximum of 2 inmates and the exhaust runs continuously.

Note: To be used in accordance with the attached, "Plan Review Policies"