§ 53.40 General provisions.

(a) The test procedures prescribed in this subpart shall be used to test the performance of candidate methods for PM$_{10}$ against the performance specifications given in table D–1. Except as provided in paragraph (b) of this section, a test sampler or samplers representative of the sampler described in the candidate method must exhibit performance better than, or equal to, the specified value for each performance parameter, to satisfy the requirements of this subpart.

(b) For a candidate method using a PM$_{10}$ sampler previously approved as part of a designated PM$_{10}$ method, only the test for precision need be conducted and passed to satisfy the requirements of this subpart. For a candidate method using a PM$_{10}$ sampler inlet previously approved as part of a designated PM$_{10}$ method, the tests for precision and flow rate stability must be conducted and passed to satisfy the requirements of this subpart. For a candidate method using a PM$_{10}$ sampler inlet previously approved as part of a designated PM$_{10}$ method, the tests for sampling effectiveness and 50 percent cutpoint need not be conducted if suitable rationale is provided to demonstrate that test results submitted for the previously approved method are applicable to the candidate method.

(c) The liquid particle sampling effectiveness and 50 percent cutpoint of a test sampler shall be determined in a wind tunnel using 10 particle sizes and three wind speeds as specified in table D–2. A minimum of 3 replicate measurements of sampling effectiveness shall be required for each of the 30 test