§ 63.606 Performance tests and compliance provisions.

(a)(1) On or before the applicable compliance date in §63.609 and once per annum thereafter, each owner or operator of a phosphoric acid manufacturing plant shall conduct a performance test to demonstrate compliance with the applicable emission standard for each existing wet-process phosphoric acid process line, superphosphoric acid process line, phosphate rock dryer, and phosphate rock calciner. The owner or operator shall conduct the performance test according to the procedures in subpart A of this part and in this section.

(b) In conducting performance tests, each owner or operator of an affected source shall use as reference methods and procedures the test methods in 40 CFR part 60, appendix A, or other methods and procedures as specified in this section, except as provided in §63.7(f).

c) Each owner or operator of a new or existing wet-process phosphoric acid process line or superphosphoric acid process line shall determine compliance with the applicable total fluorides standards in §63.602 or §63.603 as follows:

(1) The emission rate (E) of total fluorides shall be computed for each run using the following equation:

\[
E = \left( \sum_{i=1}^{N} C_{si} Q_{si} \right) / (PK)
\]

Where:

- \( E \) = emission rate of total fluorides, g/metric ton (lb/ton) of equivalent P\(_{2}\)O\(_5\) feed.
- \( C_{si} \) = concentration of total fluorides from emission point “i,” mg/dscm (mg/dscf).
- \( Q_{si} \) = volumetric flow rate of effluent gas from emission point “i,” dscm/hr (dscf/hr).
- \( N \) = number of emission points associated with the affected facility.
- \( P \) = equivalent P\(_{2}\)O\(_5\) feed rate, metric ton/hr (ton/hr).
- \( K \) = conversion factor, 1000 mg/g (453,600 mg/lb).

(2) Method 13A or 13B (40 CFR part 60, appendix A) shall be used to determine the total fluorides concentration (\( C_{si} \)) and volumetric flow rate (\( Q_{si} \)) of the effluent gas from each of the emission points. If Method 13B is used, the fusion of the filtered material described in Section 7.3.1.2 and the distillation of suitable aliquots of containers 1 and 2, described in section 7.3.3 and 7.3.4. in Method 13 A, may be omitted. The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf).

(3) The equivalent P\(_{2}\)O\(_5\) feed rate (\( P \)) shall be computed using the following equation:

\[
P = M_{p} R_{p}
\]

Where:

- \( M_{p} \) = total mass flow rate of phosphorus-bearing feed, metric ton/hr (ton/hr).
- \( R_{p} \) = P\(_{2}\)O\(_5\) content, decimal fraction.

   (i) The accountability system described in §63.605(a) and (b) shall be used to determine the mass flow rate (\( M_{p} \)) of the phosphorus-bearing feed.

   (ii) The P\(_{2}\)O\(_5\) content (\( R_{p} \)) of the feed shall be determined using as appropriate the following methods (incorporated by reference—see 40 CFR 63.14) specified in the Book of Methods Used and Adopted By The Association Of Florida Phosphate Chemists, Seventh Edition 1991, where applicable:

   (A) Section IX, Methods of Analysis For Phosphate Rock, No. 1 Preparation of Sample.

   (B) Section IX, Methods of Analysis For Phosphate Rock, No. 3 Phosphorus-P\(_{2}\)O\(_5\) or Ca\(_{3}\)(PO\(_4\))\(_2\), Method A-Volumetric Method.

   (C) Section IX, Methods of Analysis For Phosphate Rock, No. 3 Phosphorus-P\(_{2}\)O\(_5\) or Ca\(_{3}\)(PO\(_4\))\(_2\), Method B-Gravimetric Quimoclaic Method.
(D) Section IX, Methods of Analysis
For Phosphate Rock, No. 3 Phosphorus-
P_2O_5 or Ca_3(PO_4)_2, Method C-
Spectrophotometric Method.

(E) Section XI, Methods of Analysis
For Phosphoric Acid, Superphosphate,
Triple Superphosphate, and Ammonium
Phosphates, No. 3 Total Phosphorus-P_2O_5,
Method A-Volumetric Method.

(F) Section XI, Methods of Analysis
For Phosphoric Acid, Superphosphate,
Triple Superphosphate, and Ammonium
Phosphates, No. 3 Total Phosphorus-P_2O_5,
Method B-Gravimetric Quimociac Method.

(G) Section XI, Methods of Analysis
For Phosphoric Acid, Superphosphate,
Triple Superphosphate, and Ammonium
Phosphates, No. 3 Total Phosphorus-P_2O_5,
Method C-
Spectrophotometric Method.

(4) To comply with §63.605(d) (1) or
(2), the owner or operator shall use the
monitoring systems in §63.605(c) to de-
termine the average pressure loss of
the gas stream across each scrubber in
the process scrubbing system and to
determine the average flow rate of the
scrubber liquid to each scrubber in the
process scrubbing system during each
of the particulate matter runs. The arith-
metic average of the one-hour
averages determined during the three
test runs shall be used as the baseline
average values for the purposes of
§63.605(d) (1) or (2).

(e) Each owner or operator of a new
or existing phosphate rock calciner
shall demonstrate compliance with the
particulate matter standards in
§63.602 and 63.603 as follows:

(1) Method 5 (40 CFR part 60, appen-
dix A) shall be used to determine the
particulate matter concentration. The
sampling time and volume for each test
run shall be at least 60 minutes and 1.70
dscm.

(2) To comply with §63.605(d) (1) or
(2), the owner or operator shall use the
monitoring systems in §63.605(c) to de-
termine the average pressure loss of
the gas stream across each scrubber in
the process scrubbing system and to
determine the average flow rate of the
scrubber liquid to each scrubber in the
process scrubbing system during each
of the particulate matter runs. The arith-
metic average of the one-hour
averages determined during the three
test runs shall be used as the baseline
average values for the purposes of
§63.605(d) (1) or (2).

§ 63.607 Notification, recordkeeping,
and reporting requirements.

(a) Each owner or operator subject to
the requirements of this subpart shall
comply with the notification require-
ments in §63.9.

(b) Each owner or operator subject to
the requirements of this subpart shall
comply with the recordkeeping re-
quirements in §63.10.