

**Tucson Electric Power
Irvington Generating Station
Air Quality Permit # 1052**

MINOR REVISION TECHNICAL SUPPORT DOCUMENT (TSD)

July 28, 2010 Second Addendum to TSD Issued May 18, 2007

I. General Comments:

This TSD is an addendum to the tsd issued with the 2007 renewal and only addresses the incorporation of the Consent Order standards, and a minor revision submitted for installation of two emergency generators. The generators installed are one NSPS and one Non-NSPS generator.

C. Attainment Classification

TEP-IGS is located in a region that is designated as attainment for all criteria pollutants.

II. Source Description

A. Process Description

There are no new units being installed and no increase in emissions associated with this revision. The unit affected by is the coal-fired steam turbine cycle boiler, Unit I4. The revision incorporates mercury emissions monitoring, recordkeeping and reporting provisions.

B. Operating Schedule

This revision does not affect the operating schedule for TEP-IGS.

C. Affected Equipment

The affected equipment as discussed above is the coal-fired Unit I4.

D. Air Pollution Control Equipment

None required with this revision.

III. Regulatory History

TEP is currently in compliance with all permit and regulatory requirements.

A. Testing & Inspections

Inspections have been conducted regularly since PDEQ took over jurisdiction from ADEQ. The last completed inspection was concluded in 2006.

B. Excess Emissions

There have been no notices of violations for any excess emissions since the permit was renewed.

IV. Emission Estimates

Potential to Emit estimates are not required with this revision. Mercury potential to emit are required to be submitted no later than January 31, 2014.

There are no emission estimates required for emergency generators. In any case emission estimates for the two emergency generators are included in the permit application.

V. Applicable Requirements

Standards incorporated by this revision are as follows:

Emergency Generator Standards

A.. Opacity Standard

1. II.A prohibits the Permittee from emitting smoke from NSPS generators in excess of 20% opacity. Cold engines exempt for the first 10 minutes.
2. II.B prohibits the Permittee from emitting smoke from non-NSPS generators in excess of 40% opacity; first 10 minutes immediately after startup are exempt from this opacity limit.
3. II.C prohibits the Permittee from emitting smoke from generators in excess of 60% opacity when engines are cold or are being accelerated under load.
4. II.D is a requirement to conduct quarterly checks of visible emissions and keep records of such inspections.
5. II.E is a provision that allows the Control Officer to require a Method 9 test conducted by the Permittee should it be necessary

B. Fuel Limitation

1. IV.A is a prohibition from firing fuels other than those allowed by the permit. This is a synthetic emission limitation for Non-NSPS engines as firing alternate fuels may result in an increase in emissions above major source thresholds. There is also a prohibition from firing fuel with a sulfur content greater than 0.9% by weight. This requirement is the basis for not requiring measures to show compliance with PCC 17.16.340.F. NSPS engines have their own requirements that have been prescribed by EPA.
2. IV.B is a requirement to maintain records of fuel specifications to demonstrate compliance with IV.A of the Attachment J.

C. NSPS Standards

1. The NSPS standards incorporated in the permit are those federal standards from 40 CFR 60, Subpart IIII that apply to emergency engines manufactured after 2007 and are contained in the NSPS Emergency Generators section in Attachment J of the permit. The NSPS engine installed by TEP-IGS was manufactured in 2008.
2. Constant speed engines are exempt from the opacity requirements of the NSPS. (TEP's NSPS generator is a constant speed engine.)