

MTEC Cheat Sheet

What is MTEC?

MTEC = Maximum Theoretical Emissions Concentration

What does MTEC apply to?

Mercury, Semivolatile Metals (SVM), Low Volatile Metals (LVM), and total Chlorides

Why do an MTEC calculation?

Performance testing is waived if the facility performs an MTEC calculation

Step 1:

Determine feedrate of X from all feedstreams

(X is whatever you are doing the MTEC calculation on, i.e. mercury, chlorides, SVM, LVM)

Note: Analytes not detected in the feedstream must be assumed present at the full detection limit

Step 2:

Determine the stack gas flowrate

Step 3:

Calculate the MTEC assuming all X fed is emitted

Example: $X_{\text{Feed 1}} + X_{\text{Feed 2}} + X_{\text{Feed 3}} = \text{Emission Rate}_X$
 $\text{Emission Rate}_X / \text{Stack Flow} = \text{Emission Concentration}_X$

Complying with the Regulations

Monitor and record the feedrate of X from all feedstreams

Note: Analytes not detected in the feedstream must be assumed present at the full detection limit

Monitor (with a CMS) and record stack gas flowrate

Option 1 [40 CFR 63.1207(m)]:

Continuously calculate and record the MTEC in the operating record. Interlock the MTEC to the AWFCO system to shut off waste feed whenever the MTEC exceeds the emission standard.

Option 2 [40 CFR 63.1207(m)]:

In the NOC, identify a minimum gas flowrate limit and a maximum feedrate limit of X from all feedstreams that ensures the MTEC is below the emission standard. Interlock both the minimum gas flowrate and maximum feedrate of X to the AWFCO system.