Updated 06/02/2009
Items in Blue represent changes from previous revision

Guidance for Annual Average Throughput and Annual Average Heat Content

1. The spreadsheet available for download has an incorrect header on the process tab. It has Heat Content Annual Total (MMBtu) when it should match the web application and show Annual Average Heat Content (MMBtu).
2. **Annual Average Throughput** is a measurable factor or parameter that relates directly or indirectly to the emissions of an air pollution source during the period for which emissions are reported.
    a. Depending on the SCC, the throughput may refer to the amount of fuel combusted, raw material processed, product manufactured, or material handled or processed over a specific period of time.
    b. Throughput is typically the value that is multiplied against an emission factor to generate an emissions estimate.
    c. Common units include lb/hr, tons/day, MMscf/yr, etc.
    d. However, we prefer that you report the calculation parameter. For example, if the calculations require the MMBtu/year to get emissions, then we want you to report the MMBtu/year in the throughput. If the calculations require MMscf/year, then we want to see MMscf/year as the throughput.
    e. For combustion processes, throughput is a measure of heat content over time.
    f. If using an emission factor for calculating emissions, the reported throughput should coincide with the emission factor and the activity used in the emission factor calculation.
3. **Annual Average Heat Content** is the amount of thermal heat energy in a solid, liquid, or gaseous fuel. It is required for SCCs on a combustion device.
    a. For Emission Inventory purposes, the annual average heat content is the heat content for a standard unit of the fuel used by the source, for example 1040 MMBtu/scf of gas.
    b. Fuel heat content is typically expressed in units of Btu/lb of fuel, Btu/gal of fuel, etc.
    c. Btu/hr is a unit of power. It is the measure of energy over a specific time period. It is not the heat content.
    d. For combustion processes, do not report MMBtu/year or MMBtu/hr. The heat content is expressed as MMBtu/the reported Average Annual Throughput.
    e. Heat content is commonly expressed as MMBtu/ton of coal, 1000 Gals of oil, or million SCF gas.
    f. Heat content is not a measure of time. It is a measure of the concentration of heat energy per physical unit of fuel.