[3] There is one exception to this. For low mass emissions (LME) units in the Acid Rain Program, NO_x mass emissions are reported in addition to NO_x emission rate, to demonstrate that the unit continues to qualify for LME status from year-to-year. LME units are discussed in detail in Section 6 of this guide.

A cap and trade program does not specify traditional numerical emission limits (e.g. ppm, lb/mmBtu, etc.) for the regulated pollutant(s) Instead, compliance is demonstrated by holding enough allowances to cover the total mass emissions from the affected unit(s) during a specified time period. However, numerical emission limits imposed by other programs or by the operating permit still apply.

1.3 What is a cap and trade program?

A cap and trade program is a market-based approach to reducing emissions. The concept is simple: EPA caps, or limits, the total annual or seasonal mass emissions of a pollutant such as SO_2 or NO_x. The cap is divided into emission allowances that are allocated to each affected source. Each emission allowance represents an authorization to emit one ton of SO_2 or NO_x, over a specified time period (e.g., calendar year or ozone season). To demonstrate compliance, a source is required to hold a number of allowances greater than or equal to its emissions in the regulated time period. Since the total number of allowances allocated to the affected sources is less than the pre-program ("baseline") mass emissions from those sources, the program reduces the mass emissions of the regulated pollutant.

At the end of each compliance period, a reconciliation process takes place to verify that each affected source has enough allowances to cover its emissions. Automatic penalties for noncompliance are part of the U.S. cap and trade programs. For example, if an ARP unit does not have enough allowances to cover its annual SO_2 emissions, the owner or operator of the unit must pay an excess emissions penalty and must surrender future-year allowances to cover the shortfall.

This market-based approach allows sources to determine the most cost-effective way to comply. Sources may reduce emissions by using pollution control technologies, employing energy conservation measures, reducing utilization, switching fuels, or other strategies. Sources also are allowed to buy and sell allowances from each other to ensure that each unit has enough allowance credits in its account to cover its emissions. In this manner, a cap and trade program reduces emissions at a lower cost than traditional pollution control regulations and policies, by setting a goal and allowing market forces to determine how the goal is met.