1.2 What is Part 75 and who must comply with it?

The Part 75 rule, which is found in Volume 40 of the Code of Federal Regulations (CFR), was originally published in January, 1993. The purpose of the regulation was to establish continuous emission monitoring (CEM) and reporting requirements in support of EPA's Acid Rain Program (ARP), which was instituted in 1990 under Title IV of the Clean Air Act. The Acid Rain Program regulates electric generating units (EGUs) that burn fossil fuels such as coal, oil and natural gas and that serve a generator > 25 megawatts. For these units, Part 75 requires continuous monitoring and reporting of sulfur dioxide (SO_2) mass emissions, carbon dioxide (CO_2) mass emissions, nitrogen oxides (NO_x) emission rate, and heat input. The SO_2 component of the ARP is a "cap and trade" program, designed to reduce acid deposition by limiting SO_2 emission levels in the "lower 48" states of the U.S.A.

In October, 1998, EPA added Subpart H to Part 75, which provides a blueprint for the monitoring and reporting of NO_x mass emissions and heat input under a State or Federal NO_x emissions reduction program. The Agency anticipated that such programs were likely to come into existence, due to growing concern over health hazards associated with NO_x emissions from power plants and large industrial sources. NO_x is a precursor to ozone and fine particulate matter formation. Subpart H was first adopted as the required monitoring methodology for NO_x mass emissions and heat input under the NO_x Budget Trading Program (NBP).

The NBP began in 2002 and ended in 2008. It was a NO_x cap and trade program, designed to limit ground-level ozone formation during the ozone season (from May 1st through September 30th) in 19 states in the Eastern U.S. and the District of Columbia. The state regulations for the NBP applied mainly to large EGUs and industrial boilers, although certain states included other categories of NO_x-emitting sources, such as cement kilns and refinery process heaters. The state rules were patterned after a model regulation developed by EPA (40 CFR Part 96), and required NO_x mass emissions and heat input to be monitored and reported according to Subpart H of Part 75. The Program assigned a total NO_x emissions budget (tons per ozone season) to each state, and was administered jointly by the states and EPA's Clean Air Markets Division (CAMD). The NBP was effective; it resulted in significant reductions of NO_x emissions.

On May 12 and May 18, 2005, EPA published two new air regulations, the Clean Air Interstate Rule (CAIR) and the Clean Air Mercury Rule (CAMR). These regulations provided model rules for cap and trade programs to be adopted by the States. The CAIR rule was designed to reduce fine particulate and ozone emissions by imposing tight emission caps on SO_2 and NO_x mass emissions from EGUs in 28 states and the District of Columbia. CAIR included annual SO_2 and NO_x emissions caps for all but three of the affected States and an ozone season cap on NO_x emissions in all but three States.[1] The objective of CAMR rule was to achieve substantial reductions in mercury (Hg) mass emissions from coal-fired EGUs in all 50 states.

Both CAIR and CAMR required Part 75 monitoring. Under CAIR, monitoring systems for NO_x mass emissions and heat input were to be installed and certified by January 1, 2008, and monitoring systems for SO_2 mass emissions were to be certified by January 1, 2009. Under CAMR, Part 75-compliant monitoring systems for Hg mass emissions and, if required, heat input were to be installed and certified by January 1, 2009.

The CAIR and CAMR rules were challenged by various petitioners, and in 2008, both rules were vacated by the D.C. Court of Appeals. The Part 75 mercury monitoring provisions, which had been published in support of CAMR, were vacated along with the rule.[2] EPA appealed these two court decisions, requesting that the judges reconsider. The CAMR appeal was denied, and the D.C. Court issued a mandate, effectively terminating the regulation. However, in December 2008, the Court reversed its decision on CAIR, allowing it to temporarily remain in effect, while requiring EPA to propose and publish amendments to the regulation in a reasonable amount of time, to correct what the Court perceived to be "fatal flaws" in the rule.

Table 1, below, summarizes the active programs that currently require Part 75 monitoring. Each of these programs requires certain parameters to be monitored over specified time periods. For each affected unit, the specific parameters that must be monitored, the units of measure, and the averaging (or accounting) periods depend on which program(s) apply. Note that the ARP and CAIR programs are Federally-enforceable, but the Regional Greenhouse Gas Initiative (RGGI), which is the first mandatory cap and trade program in the U.S. for CO_2, is exclusively a State program, consisting of ten northeastern and mid-Atlantic States.

[1] The three States with annual SO_2 and NO_x caps but no ozone season NO_x cap are TX, GA and MN---although based on a December 2008 ruling by the D.C. Court of Appeals, MN is likely to be removed from the program. The three States with only an ozone season NO_x cap are MA, CT and AR.

[2] The essence of the vacated Part 75 Hg monitoring provisions has been compiled in three protocols, dated September 25, 2008, which are available on the Northeast States for Coordinated Air Use Management (NESCAUM) web site, at: www.nescaum.org . These protocols are intended to provide guidance to State agencies that have either established or are interested in developing Hg emissions reduction programs. To access the protocols, click on "Topics", and select "Mercury".

Table 1: Active Programs That Require Part 75 Monitoring Program	**Affected Sources**	**Parameter(s) Measured (units)**	**Accounting or Averaging Period**	**Data Used for Program Compliance ?**
Acid Rain Program	EGUs and other combustion sources that opt-in to the SO_2 cap and trade program (48 States)	SO_2 (tons) CO_2 (tons) NO_x (lbs/mmBtu) Heat input (mmBtu) Opacity[f] (%)	Annual (cumulative) Annual (cumulative) Annual (average) Annual (cumulative) Varies[g]	Yes[a] No[b] Certain units only[c] In some cases[d] No
Clean Air Interstate Rule (CAIR)[h]	EGUs and certain non-EGUs (if States elect to bring them in)	SO_2 and NO_x (tons)		
Annual (cumulative)	25 states	Yes[a]		
NO_x (tons)	Ozone season[e] (cumulative) 25 states	Yes[a]	Regional Greenhouse Gas Initiative[i] (RGGI)	EGUs

[a] The cumulative annual tons of SO_2, or CO_2 (for RGGI), and the cumulative annual or ozone season tons of NO_x emitted must be less than or equal to the number of emission credits (allowances) held

[b] At present, CO_2 is not a Federally regulated pollutant, although Congressional action to regulate CO_2 emissions is expected in the near future. Title IV of the Clean Air Act requires only an estimate of annual CO_2 mass emissions from electrical generating units.

[c] Under 40 CFR Part 76, certain coal-fired units are required to meet an annual NO_x emission limit.

[d] If a unit exceeds its annual NO_x emission rate limit under Part 76, the cumulative annual heat input is used to calculate the excess emission penalty

[e] The ozone season extends from May 1st through September 30th

[f] Required only for coal-fired units and certain oil-fired units in the Acid Rain Program.

[g] Varies according to State and/or other Federal requirements

[h] Implementation dates: January 1, 2008 for CAI[I] The RGGI is exclusively a State program

Table 1 also shows that when the same pollutant is regulated under two different programs, the Part 75 monitoring and reporting requirements for the pollutant are not necessarily consistent between the two programs. For example, the ARP and CAIR assess NO_x compliance differently. The ARP requires the NO_x emission rate to be monitored and reported in pounds per million BTU (lb/mmBtu) and specifies annual NO_x emission rate limits for certain coal-fired EGUs under 40 CFR Part 76. But the ARP does not have an emissions trading component for NO_x, and therefore does not require NO_x mass emissions to be reported.[3] Conversely, CAIR, which is a NO_x cap and trade program, requires NO_x mass emissions to be monitored and reported for allowance accounting purposes, but does not require compliance with NO_x emission limits in lb/mmBtu. For sources subject to both the ARP and CAIR, the requirements of both programs must be met—therefore, NO_x mass emissions and NO_x emission rate must both be monitored and reported.