

# NJDEP Reduces NOx Emission Thresholds

**JANUARY 2011**

In October 2010, the NJDEP notified environmental facility managers of the upcoming Nitrous Oxide (NOx) air pollution emission threshold requirements and final compliance dates affecting these sources of air pollution. The new requirements apply to all institutions with registered boiler equipment falling within the 25 MMBTU/hr to 50 MMBTU/hr heat input range. The notice and requirements can be confusing to people not used to managing the air permit requirements set forth by NJDEP.

NOx air pollution emission thresholds are being reduced drastically by NJDEP for equipment in this size range (roughly 625 BHP to 1250 BHP input). In order to demonstrate compliance with these new NOx emissions thresholds, mandatory stack testing (and possible equipment modification) is required. The stack test results will determine whether or not a facility is in compliance.

The first requirement is clear. Industrial/Commercial/Institutional boilers and other indirect heat exchangers are required to be in compliance with the newly reduced NOx standard by **May 1, 2011**. If you have a boiler that does NOT meet this standard, you can request a one-year extension to **May 1, 2012** if you are willing to commit to making the physical changes to that boiler that will allow you to meet the new standard.

Second, you must EITHER conduct a stack test acceptable to NJDEP (to prove your boiler is in compliance with the new NOx standard) OR submit an application for a new permit or permit modification committing you to improvements to that boiler that will let you achieve compliance. The stack test or permit modification application submittal must be completed by **November 1, 2011**. The Department will accept NJDEP Bureau of Technical Services (BTS) certified results of a previous stack test, if it was done within 5 years of the May 1, 2011 deadline and that test proves that the equipment meets the new NOx standard. If you cannot complete the stack test in time for the November 1, 2011 deadline, you can request an extension, but you must notify the Department in writing at least 30 days before November 1, 2011, and you must include a reason as to why you cannot make the testing deadline. Be aware that the Department is not obligated to issue extensions and may reject your request. If you need to physically modify

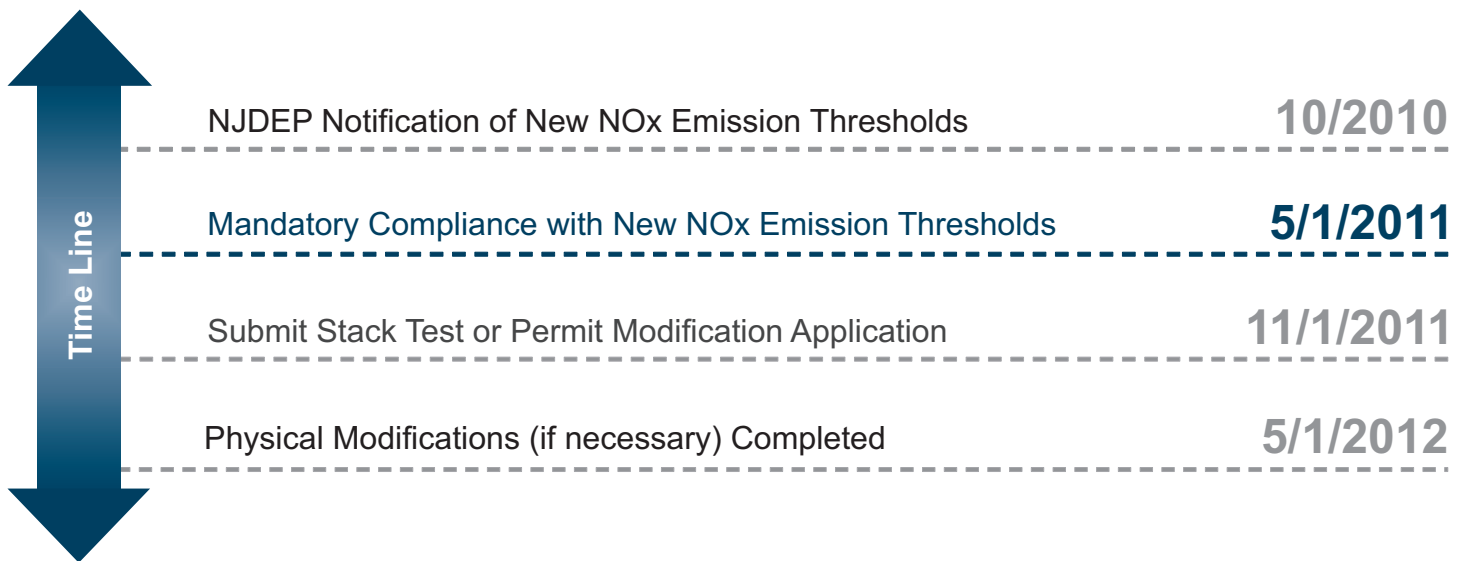
the boiler, the equipment needs to be in compliance with the new standard by the May 1, 2012 extension deadline, and stack testing to prove compliance with the standard will be required after the modifications are completed.

Unlike many NJDEP required stack tests, the Department does NOT require that you submit the testing protocol to BTS first for approval or schedule the test with the NJDEP. Stack tests must be performed based on NJDEP stipulated protocols and require certification by a professional engineer. Also, a summary of the testing results MUST be provided to the NJDEP within 60 days of the completion of the stack test.

If the NOx emission standards resulting from the stack test are not met, modifications to the boiler system may be required. Depending on the extent of the deviation of the actual stack test results from the new NOx threshold requirements, modifications may include one or more of the following: burner controls, combustion air tempering, new burner equipment, stack modifications (flue gas recirculation, etc.), and possibly boiler replacement.

BSG can assist your facility in first evaluating the results of your most recent stack test and determining whether or not physical modifications are necessary in order to satisfy the NJDEP. BSG's process will identify solutions that focus on the lowest first dollar cost while also minimizing operating costs. Due to the anticipated greenhouse gas regulations, a variety of sustainable technologies are currently available for consideration. Some of the new sustainable technologies not only meet the stringent NOx emission rates but also provide sizable energy efficiency improvements, reducing system operating costs over the life of the system. To mitigate the impact of the first dollar cost, New Jersey Clean Energy's Pay for Performance Program (P4P) provides grants for energy efficiency technologies that meet the P4P Program criteria. BSG is an approved partner within the P4P Program and can assist you through this process.

The regulations can be found under N.J.A.C. 7:27-19 (<http://www.state.nj.us/dep/aqm/Sub19.pdf>).



If you would like to learn more about these new emission regulations and the impact that they may have on your facility, along with innovative solutions prior to the upcoming deadlines, please contact:

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