

## New Source Review and Recent Reform

New Source Review is a construction or preconstruction permitting program that requires stationary sources of air pollution to obtain permits before building new sources or modifying existing sources.<sup>1</sup> Congress enacted New Source Review in 1977 and incorporated it as an amendment to the Clean Air Act.<sup>2</sup> Both environmentalists and industry have criticized the effects of New Source Review since Congress first enacted it. As a result, revisions were made to New Source Review in December 2002 and October 2003. This paper explains the old and the new reformed provisions of New Source Review and examines the positive and negative effects of the revisions.

The purpose of the Clean Air Act, which contain the New Source Review provisions, was created in 1970. The Clean Air Act requires the Environmental Protection Agency to establish National Ambient Air Quality Standards in order to protect public health and the environment from air pollutants.<sup>3</sup> National Ambient Air Quality Standards are the maximum permissible concentration of specific air pollutants. The two types of National Ambient Air Quality Standards are primary and secondary. The purpose of primary National Ambient Air Quality Standards is to protect the general public health and also to take into account the health of sensitive populations such as

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<sup>1</sup> United States Environmental Protection Agency, *New Source Review*, <http://www.epa.gov/nsr/> (last updated Feb. 15, 2005).

<sup>2</sup> *Id.*

<sup>3</sup> *Id.*

children and the elderly. The purpose of secondary National Ambient Air Quality Standards is to protect the public welfare, such as protecting against impairments to visibility and damage to animals, crops, vegetation, and buildings.

The Clean Air Act requires the Environmental Protection Agency to periodically review the science for determining the National Ambient Air Quality Standards and how they are based. Currently, the Environmental Protection Agency measures National Ambient Air Quality Standards for six principal pollutants called criteria pollutants. These criteria pollutants include ozone, particulate matter, carbon monoxide, sulfur dioxide, nitrogen oxides, and lead.<sup>4</sup> Some parts of the country are in compliance with the National Ambient Air Quality Standards, but many parts of the country are not in compliance.<sup>5</sup> A region that is in compliance with the National Ambient Air Quality Standards is referred to as an attainment area, and a region that is not in compliance is referred to as a nonattainment area. It is possible for an area to be in attainment for certain pollutants and in nonattainment for other pollutants.

New Source Review serves two purposes.<sup>6</sup> The first purpose of New Source Review is to ensure that the building of new sources or the modification of existing sources does not significantly degrade air quality. The second purpose of New Source Review is to ensure that the building or modifying of source does not slow down progress

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<sup>4</sup> *Id.*

<sup>5</sup> Combined Heat and Power Partnership, United States Environmental Protection Agency, *The Basics of New Source Review and Recent Reforms*, [http://www.epa.gov/chp/pdf/presentations\\_2/Troche%20Permit.pdf](http://www.epa.gov/chp/pdf/presentations_2/Troche%20Permit.pdf) (Apr. 29-30, 2003).

<sup>6</sup> *New Source Review*, *supra* n. 1, at <http://www.epa.gov/nsr/>.

toward cleaner air in nonattainment areas and does not significantly worsen air quality in attainment areas. New Source Review ensures people who live in neighborhoods where new sources are being built or existing sources are being modified that their air quality will remain as clean as possible and that the sources will use the available advances in pollution control technology.<sup>7</sup>

Depending upon where a stationary source is located and how large it is, there are three different types of New Source Review requirements that the source could have to follow. The first type of New Source Review is called Prevention of Significant Deterioration. Prevention of Significant Deterioration permits are required with the building of new major pollutant sources or the major modification of an existing major pollutant source when the major source is located in an attainment area. The second type of New Source Review is called Nonattainment New Source Review. Nonattainment New Source Review permits are required with the building of new major sources or the major modification of existing major sources when the major source is located in a nonattainment area. The third type of New Source Review is for minor pollutant source permits.<sup>8</sup> There is not a New Source Review permitting process for very small stationary pollutant sources, but some state pollution control agencies have special air pollution requirements in their State Implementation Plan that control very small sources.<sup>9</sup>

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<sup>7</sup> *Id.*

<sup>8</sup> *Id.*

<sup>9</sup> *The Basics of New Source Review and Recent Reforms, supra* n. 5, at [http://www.epa.gov/chp/pdf/presentations\\_2/Troche%20Permit.pdf](http://www.epa.gov/chp/pdf/presentations_2/Troche%20Permit.pdf).

The calculation to determine whether a stationary source is a major pollutant source or a minor pollutant source, and thus what type of New Source Review is required, depends upon whether the source is located in an attainment area or a nonattainment area.<sup>10</sup> If the source is located in a nonattainment area, it is a major pollutant source if it has the potential to emit more than one hundred tons per year.<sup>11</sup> But this cutoff level can be as low as ten tons per year in some areas and for some pollutants.<sup>12</sup> If the source is in an attainment area, it is a major pollutant source if it has the potential to emit between one hundred and two hundred fifty tons per year.<sup>13</sup> The cutoff level depends upon the source.<sup>14</sup>

Under New Source Review, each stationary source must obtain and follow an appropriate permit.<sup>15</sup> These permits have legal effect upon the source and specify what construction or modification the source is allowed to make, the required emission limits, and usually how the source must be operated. The stationary source must apply for the permits with the appropriate permitting agency, and usually the source must be constructed in accordance with the information provided in the application because the permitting agency bases its decision upon the information in the application. Sources also are allowed to request certain restrictions in their permit in order to, for example, be

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<sup>10</sup> *New Source Review*, *supra* n. 1, at <http://www.epa.gov/nsr/>.

<sup>11</sup> *Id.*

<sup>12</sup> *The Basics of New Source Review and Recent Reforms*, *supra* n. 5, at [http://www.epa.gov/chp/pdf/presentations\\_2/Troche%20Permit.pdf](http://www.epa.gov/chp/pdf/presentations_2/Troche%20Permit.pdf).

<sup>13</sup> *New Source Review*, *supra* n. 1, at <http://www.epa.gov/nsr/>.

<sup>14</sup> *Id.*

<sup>15</sup> *Id.*

classified as a minor source instead of a major source. Permitting agencies ensure permits are followed by requiring monitoring, recordkeeping, and reporting.<sup>16</sup>

New Source Review permits are generally issued by the Environmental Protection Agency or by state or local air pollution control agencies.<sup>17</sup> Many states have a State Implementation Plan, wherein the state or local pollution control agency develops its own permit requirements. The Environmental Protection Agency develops the basic requirements for New Source Review permits in its federal regulations, and the state or local agency permit programs must be at least as stringent as these basic requirements to be approved by the Environmental Protection Agency. Some state or local pollution control agencies do not develop their own unique permit requirements and instead use the Environmental Protection Agency requirements. In that situation, the Environmental Protection Agency delegates authority to the state and local air pollution control agency to issue permits on the behalf of the Environmental Protection Agency. These are called delegated states. In other areas, the Environmental Protection Agency itself is the permitting agency.<sup>18</sup> South Carolina has a State Implementation Plan that has been approved by the Environmental Protection Agency.<sup>19</sup>

An important aspect of the New Source Review permitting program is public involvement. There are numerous ways for the public to become involved with the New

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<sup>16</sup> *Id.*

<sup>17</sup> *Id.*

<sup>18</sup> *Id.*

<sup>19</sup> *Id.*

Source Review process.<sup>20</sup> A member of the public has the opportunity to comment on a particular New Source Review permit, to comment on New Source Review regulations proposed by the Environmental Protection Agency, or to comment on the Environmental Protection Agency's decision to approve a state or local pollution control agency's New Source Review regulations. A member of the public also has the ability to bring enforcement actions against sources that are not complying with their NSR permits because the Clean Air Act allows citizens to sue to enforce many of the Clean Air Act's requirements.<sup>21</sup>

In order to help ensure the opportunity for public comment, a public notice of the permit draft is published, a public comment period is established, and a deadline for requesting a public hearing on the permit draft is set.<sup>22</sup> The Environmental Protection Agency also publishes its proposed New Source Review regulations and its decisions regarding state or local New Source Review permit requirements in the Federal Register.<sup>23</sup>

The first type of New Source Review permit is a Prevention of Significant Deterioration permit. Prevention of Significant Deterioration permits are required with the building of a new major source or the major modification to an existing major source when the source is located in an attainment area or the source is unclassifiable within the

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<sup>20</sup> *Id.*

<sup>21</sup> *Id.*

<sup>22</sup> *Id.*

<sup>23</sup> *Id.*

National Ambient Air Quality Standards.<sup>24</sup> Prevention of Significant Deterioration permits require the installation of the Best Available Control Technology, an air quality analysis, an additional impacts analysis, and public involvement.<sup>25</sup>

The goals of Prevention of Significant Deterioration include to: (1) protect the public health and welfare; (2) preserve, protect, and enhance areas of special national or regional natural, recreational, scenic, or historic value; (3) ensure economic growth occurs consistently with the preservation of existing clean air resources; and (4) assure decisions to permit increased air pollution are made after careful evaluation of all consequences and effects and with ample opportunity for the public to participate in the decision making process.<sup>26</sup>

One of the requirements of Prevention of Significant Deterioration is the use of the Best Available Control Technology.<sup>27</sup> Best Available Control Technology is an emissions limitation based upon the maximum level of control that is available to be used with the source. A source's Best Available Control Technology is determined on a case-by-case basis, which includes the consideration of energy, environmental, and economic impacts. Based upon the Best Available Control Technology determination for a source, the source might need to use new, add-on control equipment or might have to modify production processes or methods. Examples include fuel cleaning and innovative fuel

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<sup>24</sup> *Id.*

<sup>25</sup> *Id.*

<sup>26</sup> *Id.*

<sup>27</sup> *Id.*

combustion techniques. Best Available Control Technology might be required in many different forms, including as a design, equipment, a work practice, or an operation standard if the imposition of an emissions standard is infeasible.<sup>28</sup>

Before a Prevention of Significant Deterioration permit is issued, an air quality analysis must be performed.<sup>29</sup> The air quality analysis must show the new emissions caused by the building of a new major source or the modification of an existing source will not violate a National Ambient Air Quality Standard or a Prevention of Significant Deterioration increment. An air quality analysis compares the new emissions with proposed increases or decreases from existing sources. By assessing the existing air quality and making predictions of the ambient concentrations that will result from the building of a new major source or the modification of an existing major source.<sup>30</sup>

Special rules apply with an air quality analysis if the area where the new or modified major source is located is a Class I area.<sup>31</sup> A Class I area is an area with special national or regional natural, scenic, recreational, or historic value. There are extra protections for these areas. The number of Class I areas was set and limited in 1977. The Federal Land Manager determines specific Air Quality Related Values for Class I areas and establishes criteria to determine when there is an adverse impact upon these Air Quality Related Values. The Federal Land Manager has a lot of discretion, and if he

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<sup>28</sup> *Id.*

<sup>29</sup> *Id.*

<sup>30</sup> *Id.*

<sup>31</sup> *Id.*

determines that a source will adversely impact the Air Quality Related Values in a Class I area, then he can recommend that the permit be denied. The permitting agency, however, has the power to make the final decision as to whether or not to issue the permit.<sup>32</sup>

One of the purposes of an air quality analysis is to show that the new major source or the modified existing source will not violate a Prevention of Significant Deterioration increment. A Prevention of Significant Deterioration increment is included in a Prevention of Significant Deterioration permit and is the amount the permit allows an area to increase in air pollution.<sup>33</sup> The purpose of a Prevention of Significant Deterioration increment is to prevent air quality in areas that exceed the basic requirements of National Ambient Air Quality Standards from deteriorating to the level allowed by the National Ambient Air Quality Standards. Prevention of Significant Deterioration increments and the National Ambient Air Quality Standards are different because the National Ambient Air Quality Standards define the maximum amount of particular pollutants that are allowed in an area. In contrast, a Prevention of Significant Deterioration increment is the maximum increase in concentration above the baseline concentration for a particular pollutant that the permit allows. A baseline concentration is determined for each measured pollutant and usually is the ambient concentration of the pollutant that existed when the first complete Prevention of Significant Deterioration permit application for that area was submitted. If the concentration for a pollutant exceeds the amount allowed by the Prevention of Significant Deterioration increment,

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<sup>32</sup> *Id.*

<sup>33</sup> *Id.*

then significant deterioration is said to have occurred. No matter how large an increase in the emission of a pollutant is allowed by a Prevention of Significant Deterioration increment, the increase must still not cause the emission of a pollutant to exceed the concentration allowed by the National Ambient Air Quality Standards.<sup>34</sup>

Before a Prevention of Significant Deterioration permit is issued, an applicant also must perform an additional impacts analysis.<sup>35</sup> An additional impacts analysis determines what impact the resulting increase in emissions of pollutants from the new major source or modified existing source will have upon air, ground, and water pollution of soils, vegetation, and visibility. An additional impacts analysis also looks at associated growth that will occur in the area as a result of the new major source or the modified existing source. Associated growth includes industrial, commercial, and residential growth.<sup>36</sup>

The second type of New Source Review permit is a nonattainment New Source Review permit.<sup>37</sup> Nonattainment New Source Review permits are required with the building of new major stationary sources or the major modification of existing sources when the source is located in an area that is not in attainment with the National Ambient Air Quality Standards. The requirements for a nonattainment New Source Review permit are developed specifically for each nonattainment area and are found in the area's State

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<sup>34</sup> *Id.*

<sup>35</sup> *Id.*

<sup>36</sup> *Id.*

<sup>37</sup> *Id.*

Implementation Plan. Every area's nonattainment New Source Review permitting program must require the installation of the lowest achievable emission rate, emission offsets, and the opportunity for public involvement.<sup>38</sup>

Installation of the lowest achievable emission rate is the first requirement of a nonattainment New Source Review permit and is a very stringent measure.<sup>39</sup> The lowest achievable emission rate must be either the most stringent emission limitation in the State Implementation Plan for the class or category of the area where the new major source or modified existing source is located, or it must be the most stringent emission limitation that a source in the class or category of the area has been able to achieve in practice. The emissions rate can be determined using a combination of emissions-limiting measures. Examples of emissions-limiting measures include changes in raw material processed, process modifications, and add-on controls.<sup>40</sup>

The second requirement of a nonattainment New Source Review permit is emission offsets. Emission offsets are reductions in current emissions. The reductions usually come from current sources in the area of the building of the new major source or the modification of the existing major source.<sup>41</sup> The emission reductions must offset the emission increases that will result from the new source or modified existing source, and the reductions also must result in a net air quality benefit. Emission offsets are beneficial

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<sup>38</sup> *Id.*

<sup>39</sup> *Id.*

<sup>40</sup> *Id.*

<sup>41</sup> *Id.*

because they allow industrial growth in nonattainment areas, and at the same time, they keep the area on track toward attainment of the National Ambient Air Quality Standards.<sup>42</sup>

The third type of New Source Review permit is a minor New Source Review permit.<sup>43</sup> Minor New Source Review permits are required with stationary pollution sources that are not major sources and therefore do not require a Prevention of Significant Deterioration or a nonattainment New Source Review permit. Minor New Source Review permits are necessary in order to prevent the building of new sources or the modification of existing sources from interfering with the area's attainment or maintenance of the National Ambient Air Quality Standards or if it is a nonattainment area, from violating the control strategy. Sources will often avoid having to obtain a Prevention of Significant Deterioration or a nonattainment New Source Review permit by obtaining a minor New Source Review permit instead. The source is able to obtain a minor New Source Review permit by including restrictions limit emissions from reaching the level that triggers a Prevention of Significant Deterioration or a nonattainment New Source Review permit. Each state is allowed to have its own minor New Source Review standards as part of its State Implementation Plan. The State Implementation Plan minor New Source Review permit requirements must be at least as strict as the federal requirements.<sup>44</sup>

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<sup>42</sup> *Id.*

<sup>43</sup> *Id.*

<sup>44</sup> *Id.*

As a result of the many problems with and criticisms of New Source Review, the Environmental Protection Agency finalized regulatory changes to the New Source Review permitting program on December 31, 2002 and October 27, 2003.<sup>45</sup> All state or local pollution control agency programs must also revise their State Implementation Plans to reflect these changes. The new State Implementation Plans are required to be at least as stringent as the new Environmental Protection Agency regulations, and the state or local pollution control agencies are required to make the changes within three years from the date the new regulatory changes were published in the Federal Register.<sup>46</sup> The regulatory revisions made to the New Source Review program only apply to the modification to existing sources and not to the building of new sources. The regulatory revisions also are not applied retroactively.<sup>47</sup>

There were five basic parts of the New Source Review permit program that were reformed with the December 2002 revisions.<sup>48</sup> These changes affected the method for calculating emissions increases, the method for establishing actual emissions baselines, clean units, pollution control projects, and plantwide applicability limits.<sup>49</sup>

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<sup>45</sup> South Carolina Department of Health and Environmental Control, *New Source Review*, <http://www.scdhec.gov/eqc/baq/html/NewSourceReview.asp> (last updated Mar. 1, 2005).

<sup>46</sup> *Id.*

<sup>47</sup> *The Basics of New Source Review and Recent Reforms*, *supra* n. 5, at [http://www.epa.gov/chp/pdf/presentations\\_2/Troche%20Permit.pdf](http://www.epa.gov/chp/pdf/presentations_2/Troche%20Permit.pdf).

<sup>48</sup> *New Source Review*, *supra* n. 45, at <http://www.scdhec.gov/eqc/baq/html/NewSourceReview.asp>.

<sup>49</sup> *Id.*

The first revision of the December 2002 reform concerned the method for calculating emissions increases.<sup>50</sup> Under the New Source Review regulations, a modification to an existing source is considered a major modification and requires a New Source Review permit if the modification will result in a significant net increase in emissions. The December 2002 revisions changed the method for calculating what a significant net increase is. The old rules calculated a significant net increase by applying an actual to potential test. This test consisted of comparing the past actual emissions with the future potential emissions that could result from the modification. The difference between these two figures was then compared to significance thresholds in order to determine whether there was a significant net increase.<sup>51</sup>

The new rules after the December 2002 revisions, calculate a significant net increase by applying an actual to projected actual test.<sup>52</sup> This test consists of comparing the past actual emissions with the projected actual emissions that will result from the modification in order to determine if there will be a significant net increase in emissions.<sup>53</sup> The projected actual emissions are calculated by determining the maximum projected annual emission in the next five years.<sup>54</sup>

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<sup>50</sup> *Id.*

<sup>51</sup> *Id.*

<sup>52</sup> *Id.*

<sup>53</sup> *Id.*

<sup>54</sup> *The Basics of New Source Review and Recent Reforms*, *supra* n. 5, at [http://www.epa.gov/chp/pdf/presentations\\_2/Troche%20Permit.pdf](http://www.epa.gov/chp/pdf/presentations_2/Troche%20Permit.pdf).

The second revision of the December 2002 reform was closely related to the first revision. It concerned the definition of baseline actual emissions and the procedures for calculating the source's emissions before the modification is made.<sup>55</sup> The old rules calculated the source's actual emissions by looking at the average annual rate of actual emissions during the prior two years. However, an alternate period could be used if it was applied for and approved.<sup>56</sup>

The new rules after the December 2002 revisions, allow the period for calculating the source's emissions before the modification to be any consecutive twenty four months during the prior ten years.<sup>57</sup> The new rules also allow the source to use a different twenty four month period for each pollutant emission that is being calculated.<sup>58</sup>

The third revision of the December 2002 reform set up a process for an emissions unit or source to qualify as a Clean Unit.<sup>59</sup> If a source is qualified as a Clean Unit, its emission increases are disregarded for purposes of determining whether there is a major modification.<sup>60</sup> The purpose of the Clean Unit exemption is to avoid having to re-permit

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<sup>55</sup> *New Source Review*, *supra* n. 45, at <http://www.scdhec.gov/eqc/baq/html/NewSourceReview.asp>.

<sup>56</sup> *Id.*

<sup>57</sup> *Id.*

<sup>58</sup> *Id.*

<sup>59</sup> *Id.*

<sup>60</sup> Elizabeth B. Partlow, Speech, *Current Air Issues: Construction Permitting, Title V, Nonattainment, and New Source Review Reform* (Columbia, S.C., Feb. 28, 2005) (copy on file with South Carolina Environmental Law Course).

units that have state of the art controls.<sup>61</sup> Before the December 2002 revisions, sources did not have the possibility of becoming a Clean Unit.<sup>62</sup> Therefore, whenever a modification was made to a stationary source that resulted in a significant net increase in emissions, the source had to go through the New Source Review process.<sup>63</sup>

The new rules after the December 2002 revisions, allow a source to avoid the New Source Review process by qualifying as a Clean Unit.<sup>64</sup> In order to qualify as a Clean Unit, the source must show a Best Available Control Technology determination was made through New Source Review to the source within the past ten years. The source must also still be complying with the Best Available Control Technology determination. A source also has the ability to qualify as a Clean Unit if it shows that it uses controls that are comparable to or as effective as Best Available Control Technology. The source is able to claim the Clean Unit exemption for ten years, and the exemption can be renewed if the source is still complying with the Best Available Control Technology determination.<sup>65</sup>

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<sup>61</sup> *The Basics of New Source Review and Recent Reforms*, *supra* n. 5, at [http://www.epa.gov/chp/pdf/presentations\\_2/Troche%20Permit.pdf](http://www.epa.gov/chp/pdf/presentations_2/Troche%20Permit.pdf).

<sup>62</sup> *New Source Review*, *supra* n. 45, at <http://www.scdhec.gov/eqc/baq/html/NewSourceReview.asp>.

<sup>63</sup> *Id.*

<sup>64</sup> *Id.*

<sup>65</sup> *Id.*

The fourth revision of the December 2002 revisions concerned the requirements to become a pollution control project.<sup>66</sup> A pollution control project is a project undertaken by a stationary source that has the purpose of reducing pollutant emissions. One reason for allowing pollution control projects is that when a source tries to reduce emissions of one type of pollutant, emissions of another type of pollutant are often increased. Therefore, as an incentive to sources trying to reduce an emission, the Environmental Protection Agency allows some stationary sources to qualify as pollution control projects and avoid the New Source Review process that would result from the subsequent pollutant increase. In order for a source to qualify as a pollution control project under the old rules, the source had to show that the decrease in the first pollutant would be environmentally beneficial as compared to the increase in the subsequent pollutant. In addition, the increase in the second pollutant could not cause a violation of the National Ambient Air Quality Standards or a Prevention of Significant Deterioration increment or affect air quality such as visibility.<sup>67</sup>

The new rules after the December 2002 revisions no longer require that the emissions decrease be environmentally beneficial in order for a source to qualify as a pollution control project.<sup>68</sup> The new rules also list presumptively environmentally beneficial pollution control projects. A source can avoid the New Source Review process by choosing one of the pre-qualified pollution control projects from the list. If a pollution

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<sup>66</sup> *Id.*

<sup>67</sup> *Id.*

<sup>68</sup> *Id.*

control project causes a significant increase in a pollutant that is in nonattainment, the increase has to be offset.<sup>69</sup>

The fifth revision of the December 2002 revisions concerned Plantwide Applicability Limits. A Plantwide Applicability Limit gives a stationary source the ability to make changes without having to go through the New Source Review process, as long as the changes do not cause the emissions to go above a certain limit.<sup>70</sup> Under the old rules, Plantwide Applicability Limits were not allowed, but the Environmental Protection Agency had developed pilot Plantwide Applicability Limit permits over the past ten years. The pilot Plantwide Applicability Limit permits, however, were inconsistent and labor-intensive to develop.<sup>71</sup>

The new rules after the December 2002 revisions develop a consistent process for authorizing plantwide applicability limits.<sup>72</sup> In order to determine the Plantwide Applicability Limit, the source is allowed to use the revised baseline actual emission definition. The Plantwide Applicability Limit is good for ten years. If a source wants to increase its Plantwide Applicability Limit, the source must show that even if the Best Available Control Technology were used with every source of emissions, a new source would still violate the current Plantwide Applicability Limit. The emission unit causing the violation of the Plantwide Applicability Limit would have to go through major New

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<sup>69</sup> *Id.*

<sup>70</sup> *Id.*

<sup>71</sup> *Id.*

<sup>72</sup> *Id.*

Source Review. Plantwide Applicability Limit permits also require regular monitoring, recordkeeping, and reporting to ensure the Plantwide Applicability Limits are met and maintained.<sup>73</sup>

A second set of regulatory revisions were made to the New Source Review permit program with the October 2003 revisions.<sup>74</sup> The October 2003 revisions only affected the criteria for a modification to be considered Routine Maintenance, Repair and Replacement. The old rules excluded Routine Maintenance, Repair and Replacement from New Source Review, but there was no standard or consistent measure of what qualified as Routine Maintenance, Repair and Replacement. Whether a modification qualified was determined on a case by case basis. A source was allowed to decide on its own whether a modification was Routine Maintenance, Repair and Replacement, or the source could consult the appropriate permitting agency about whether the modification was Routine Maintenance, Repair and Replacement. Under the old rules, the Environmental Protection Agency had general criteria to determine whether the modification was Routine Maintenance, Repair and Replacement. These criteria included the nature, extent, purpose, frequency, and cost of the modification, and the Environmental Protection Agency relied on a common sense evaluation.<sup>75</sup>

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<sup>73</sup> *Id.*

<sup>74</sup> *Id.*

<sup>75</sup> *Id.*

The new rules after the October 2003 revisions give a more standardized definition for determining whether a modification is Routine Maintenance, Repair and Replacement. The new rules allow a source to qualify for Routine Maintenance, Repair and Replacement if it replaces a process unit component with a functionally equivalent component or to make associated maintenance and repair activities, as long as the replacement activity does not exceed twenty percent of the replacement value of the process unit. The replacement also cannot change the basic design parameters of the process unit and cannot cause the emission unit to exceed any emissions or operational limits. “The replacement value of the process unit is calculated by: (1) replacement cost (estimate of the fixed capital cost of constructing a new process unit or the current appraised value of the process unit); (2) invested cost, adjusted for inflation; (3) the insurance value, where the insurance value covers complete replacement of the process unit; or (4) another accounting procedure based on Generally Accepted Accounting Principles.”<sup>76</sup> The source must notify the reviewing authority if it wishes to use the insurance value or another accounting method based on Generally Accepted Accounting Principles. The source can make the first notice at any point in the year, but subsequent notices must be made at the beginning of the process unit’s fiscal year. Control equipment is not considered when calculating the cost of a process unit because it is not considered part of the process unit. But if the control equipment serves a dual purpose as both control equipment and process equipment, then it can be considered when calculating the cost of the process unit.<sup>77</sup>

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<sup>76</sup> *Id.*

<sup>77</sup> *Id.*

South Carolina has taken the appropriate steps in order to make revisions to our State Implementation Plan in compliance with the December 2002 changes. The Department of Health and Environmental Control approved the South Carolina regulatory revisions in January 2005.<sup>78</sup> These Final Regulations were then submitted to the South Carolina Legislature for approval and are still pending in the General Assembly.<sup>79</sup> If the General Assembly does not disapprove or request withdrawal, the Final Regulations are expected to be published in the *State Register* in June 2005.<sup>80</sup> The October 2003 revisions to Routine Maintenance, Repair and Replacement are not part of the regulatory revisions made by South Carolina.<sup>81</sup>

Criticism against the New Source Review program continues despite the recent revisions. There is a pending lawsuit which challenges the Environmental Protection Agency's December 2002 revisions made to the regulatory requirements of New Source Review.<sup>82</sup> The lawsuit was brought by states, local governments, industry, and environmental groups. The Environmental Protection Agency and the Department of Justice have argued in their defense that the 2002 regulatory changes were developed from over twenty years of New Source Review program experience and over a decade of working with states, industry, and environmental groups as to how New Source Review

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<sup>78</sup> Partlow, *supra* n. 60.

<sup>79</sup> *New Source Review*, *supra* n. 45, at <http://www.scdhec.gov/eqc/baq/html/NewSourceReview.asp>.

<sup>80</sup> *Id.*

<sup>81</sup> Partlow, *supra* n. 60.

<sup>82</sup> *New Source Review*, *supra* n. 1, at <http://www.epa.gov/nsr/>.

should be reformed. The Environmental Protection Agency and Department of Justice also have argued in their defense that the regulatory changes increase flexibility, promote greater administrative efficiency, give better regulatory certainty, and also manage to maintain the current or achieve an even better level of environmental protection.<sup>83</sup>

Fourteen states also sued the Environmental Protection Agency regarding the October 2003 Routine Maintenance, Repair and Replacement revisions.<sup>84</sup> The U.S. Court of Appeals for the D.C. Circuit has issued a stay on the October 2003 revisions while the court considers the merits of the states' challenge.<sup>85</sup>

Both opponents and proponents of the New Source Review regulatory revisions have valid arguments. There are some arguable drawbacks to the revisions made to the New Source Review rules, but there also are some resulting benefits. Critics argue that the New Source Review revisions will negatively impact the environment and are a product of the Bush administration's disregard for the environment. According to the Environmental Protection Agency, however, the New Source Review revisions were a result of a broad based, bipartisan desire for change<sup>86</sup>, and the opinions of both environmentalists and industry were considered. The Environmental Protection Agency

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<sup>83</sup> *Id.*

<sup>84</sup> *New Source Review*, *supra* n. 45, at <http://www.scdhec.gov/eqc/baq/html/NewSourceReview.asp>.

<sup>85</sup> *Id.*

<sup>86</sup> United States Environmental Protection Agency, *New Source Review Fact Sheet*, <http://www.epa.gov/nsr/facts.html> (last updated Feb. 15, 2005).

spent ten years investigating and determining what revisions would help improve the New Source Review program.<sup>87</sup>

The Environmental Protection Agency argues that the New Source Review reforms will help Congress better meet its goals of “providing for economic growth while maintaining or improving air quality.”<sup>88</sup> The new revisions will give more certainty to sources as to which activities are covered by New Source Review and will remove many of the previous barriers to environmentally beneficial projects. In addition, the revisions will give incentives to sources to improve their environmental performance and they will be able to make modifications and changes to their facilities without the cost and burden of New Source Review.<sup>89</sup>

The Environmental Protection Agency states its reforms will “remove the obstacles to environmentally beneficial projects, clarify New Source Review requirements, encourage emissions reductions, promote pollution prevention, provide incentives for energy efficient improvements, and help assure worker and plant safety.”<sup>90</sup> In addition, the “reforms will clarify and simplify the program so that industry will be able to make improvements to their plants that will result in greater environmental

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<sup>87</sup> *Id.*

<sup>88</sup> *Id.*

<sup>89</sup> *Id.*

<sup>90</sup> United States Environmental Protection Agency, *New Source Review Questions and Answers*, <http://www.epa.gov/nsr/questions.html> (last updated Feb. 15, 2005).

protection.”<sup>91</sup> In order to confirm and support its predictions, the Environmental Protection agency prepared and issued a supplemental environmental analysis of the New Source Review revisions that explained the anticipated environmental effects.<sup>92</sup>

In the Environmental Protection Agency’s supplemental environmental analysis, it found that the December 2002 revisions as a whole will have an overall net benefit to the environment.<sup>93</sup> Four out of the five new provisions will result in a net environmental benefit, and the other new provision will have no significant effect upon the environment. Therefore, the supplemental environmental analysis suggests the revisions to the New Source Review program will not only economic benefit to industry, but they will also continue to help the Environmental Protection Agency progress toward its goal of protecting public health and achieving cleaner air. The economic benefits, however, were not predicted or included in the Environmental Protection Agency’s environmental analysis. In addition, the overall benefit to the environment from the December 2002 revisions will not be as great as other Clean Air Act programs produce because the December 2002 revisions do not affect coal fired power plants or new sources and new units.<sup>94</sup>

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<sup>91</sup> *Id.*

<sup>92</sup> United States Environmental Protection Agency, *Supplemental Analysis of the Environmental Impact of the 2002 Final NSR Improvement Rules*, <http://www.epa.gov/nsr/documents/nsr-analysis.pdf> (Nov. 21, 2002).

<sup>93</sup> *Id.*

<sup>94</sup> *Id.*

The Environmental Protection Agency's supplemental environmental analysis predicts the largest benefit from the December 2002 revisions will be a decrease in the levels of the common pollutants that cause ground level ozone or smog.<sup>95</sup> As a result of this decrease, there will be health and welfare benefits such as lower occurrences of premature mortality, asthma, and other respiratory diseases. The decrease in hazardous air pollutants, ozone depleting substances, and other pollutants, however, will be smaller than the decrease in smog causing common pollutants.<sup>96</sup>

The first December 2002 revision concerning the calculation of emission increases will have a net environmental effect, but the effect will be relatively small.<sup>97</sup> The old rule before the December 2002 revisions motivated sources to keep their actual emissions high before making a modification so they would be able to get a better past actual emission rate. The Environmental Protection Agency does not know how beneficial this will be nationally. The benefit from the new calculation method will be small because the December 2002 revisions do not affect new sources and new units built at existing facilities. In addition, modifications that cause a significant net increase in emissions will not be affected. Another reason the benefit will be small is because many sources place restrictions in their permits to qualify as a minor source and avoid New Source Review. Therefore, the December 2002 revisions will not affect these sources and there will be no net environmental benefit from these sources.<sup>98</sup>

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<sup>95</sup> *Id.*

<sup>96</sup> *Id.*

<sup>97</sup> *Id.*

<sup>98</sup> *Id.*

The second December 2002 revision concerning the definition of baseline actual emissions will not have a significant environmental impact, according to the Environmental Protection Agency.<sup>99</sup> Although there will be some existing sources that will be able to get a higher baseline and avoid New Source Review due to the new definition, this will be offset because many sources will actually get more stringent baselines because the new revisions require a source to adjust the baseline down to account for any new emission limits at the unit. The revisions concerning baseline actual emissions also will have a small overall affect on the environment because the revisions do not impact new sources, new units at existing sources, electric utilities, or many modified sources.<sup>100</sup>

The old rules before the December 2002 revisions regarding calculating emissions increases and establishing actual emissions baselines treated sources as if they operated twenty four hours a day, every day of the year. As a result, it was impossible for many sources to make changes without triggering New Source Review, even if there was not going to be an actual increase in emissions. The Environmental Protection Agency claims the new rules benefit industry because they give sources the ability to make these modifications that would not have a negative effect upon the environment without having to go through the cost and burden of New Source Review.<sup>101</sup>

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<sup>99</sup> *Id.*

<sup>100</sup> *Id.*

<sup>101</sup> *New Source Review Fact Sheet*, *supra* n. 86, at <http://www.epa.gov/nsr/facts.html>.

The third December 2002 revision that allows an exemption from New Source Review for Clean Units will have an environmentally neutral impact from many sources, but will cause a net environmental benefit from other sources.<sup>102</sup> These environmentally beneficial Clean Unit sources will be more likely to use control technology earlier or more extensively than they would have under the old rules. The Environmental Protection Agency does not know what the net benefit that will result nationally from the Clean Unit revision will be, but in individual cases, the benefit will be large. The Environmental Protection Agency found one example of a source where there will be an estimated reduction of 9,3000 tons per year in smog causing volatile organic compounds as a result of the Clean Unit exemption.<sup>103</sup> The new rules regarding Clean Units also encourage sources to install state of the art air pollution controls.<sup>104</sup>

The fourth December 2002 revision concerned Pollution Control Projects. The Environmental Protection Agency's supplemental environmental analysis found that the changes to allow Pollution Control Projects will result in a small benefit to the environment. This benefit will occur because there will be an increase in the number of sources becoming environmentally beneficial Pollution Control Projects because the New Source Review barriers will be removed. The Environmental Protection Agency is uncertain as to the national overall benefit but suggests it will probably be relatively

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<sup>102</sup> *Supplemental Analysis of the Environmental Impact of the 2002 Final NSR Improvement Rules*, *supra* n. 92, at <http://www.epa.gov/nsr/documents/nsr-analysis.pdf>.

<sup>103</sup> *Id.*

<sup>104</sup> *New Source Review Fact Sheet*, *supra* n. 86, at <http://www.epa.gov/nsr/facts.html>.

small.<sup>105</sup> The new rules encourage pollution control and prevention and give a simpler process for sources to follow as to how to become an environmentally beneficial Pollution Control Project. The old rule discouraged sources from investing in pollution control and prevention because it would often indirectly trigger New Source Review.<sup>106</sup>

The fourth December 2002 revisions concerning Plantwide Applicability Limits will, according to the findings of the Environmental Protection Agency's supplemental environmental analysis, result in the biggest environmental impact.<sup>107</sup> The December 2002 Plantwide Applicability Limit revisions will cause at least a reduction of tens of thousands of tons per year of Volatile Organic Compounds. These Volatile Organic Compound reductions will result from the three industrial areas where Plantwide Applicability Limits are expected to be used the most. The Environmental Protection Agency predicts that the overall reductions from all Plantwide Applicability Limits will be even greater. In addition, the Environmental Protection Agency believes Plantwide Applicability Limits will probably begin to be used extensively in more source categories and pollutants than those analyzed in the Environmental Protection Agency's supplemental environmental analysis.<sup>108</sup> The new rules give sources the flexibility to modify and update their facilities without the cost or burden of New Source Review.

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<sup>105</sup> *Supplemental Analysis of the Environmental Impact of the 2002 Final NSR Improvement Rules*, *supra* n. 92, at <http://www.epa.gov/nsr/documents/nsr-analysis.pdf>.

<sup>106</sup> *New Source Review Fact Sheet*, *supra* n. 86, at <http://www.epa.gov/nsr/facts.html>.

<sup>107</sup> *Supplemental Analysis of the Environmental Impact of the 2002 Final NSR Improvement Rules*, *supra* n. 92, at <http://www.epa.gov/nsr/documents/nsr-analysis.pdf>.

<sup>108</sup> *Id.*

Plantwide Applicability Limits give more clarity, more certainty, and better environmental protections.<sup>109</sup>

While the Environmental Protection Agency's supplemental environmental analysis did not cover the October 2003 revisions, the Environmental Protection Agency has predicted that the October 2003 revisions regarding Routine Maintenance, Repair and Replacement will "increase environmental protection and promote the implementation of necessary repair and replacement projects."<sup>110</sup> Because the definition of routine was so hard to define under the old rules, many sources did not make the repairs needed to update the source and obtain the newest control technology. As a result, sources continued to use old and inefficient units and there were unnecessary emissions of pollution and hazardous conditions. The new and clearly defined definition of routine avoids that problem by giving sources clear guidelines to follow.<sup>111</sup>

Although the Environmental Protection Agency's supplemental environmental analysis suggests that only environmental and industrial benefits will result from the New Source Review revisions, there are many critics who disagree and think that the revisions are a step backward away from the Clean Air Act's goal of cleaner air. Some environmentalists argue that the New Source Review revisions will "allow plant operators to keep the oldest, dirtiest plants online indefinitely without ever having to

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<sup>109</sup> *New Source Review Fact Sheet*, *supra* n. 86, at <http://www.epa.gov/nsr/facts.html>.

<sup>110</sup> *Id.*

<sup>111</sup> *Id.*

install the same modern pollution controls that newly built facilities are required to use.”<sup>112</sup> These environmentalists believe that the October 2003 revisions to Routine Maintenance, Repair and Replacement are dangerous because sources will be allowed to replace their old and outdated units a little at a time and will be able to avoid New Source Review. As a result, a source will not have to install new pollution control technology, and there will be a negative impact upon the environment.

The December 2002 and October 2003 revisions to the New Source Review program have both beneficial and negative impacts. But perhaps the impacts balance each other out and provide a fair compromise between the desires of environmentalists and industry. The long term effects of the New Source Review revisions can only be determined by waiting and seeing how industry reacts to the revisions. Hopefully, as Congress sees the effects that the December 2002 and October 2003 revisions cause, Congress will discover a more efficient method for meeting the needs of both the environment and industry.

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<sup>112</sup> Environmental Media Services, *Bush Admin Relaxes New Source Review*, [http://www.ems.org/new\\_source\\_review/reaction.html](http://www.ems.org/new_source_review/reaction.html) (last updated Sept. 12, 2003).