

**UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA**

UNITED STATES OF AMERICA,

Plaintiff,

v.

CATERPILLAR, INC.,

Defendant.

Civil Action 98-2544 (HHK)

UNITED STATES OF AMERICA,

Plaintiff,

v.

DETROIT DIESEL CORP.,

Defendant.

Civil Action 98-2548 (HHK)

MEMORANDUM OPINION AND ORDER

Before the court are the motions of defendants Detroit Diesel Corporation ("DDC") and Caterpillar, Inc. ("Caterpillar"), manufacturers of heavy-duty diesel engines, seeking review and modification of the consent decree entered by this court three years ago to settle claims brought against them by the Environmental Protection Agency ("EPA").¹ In the enforcement actions

¹ DDC and Caterpillar are each subject to its own consent decree and filed separate motions for review and modification. It is appropriate to address their motions together, however, because the background of the underlying dispute is the same for both defendants and both defendants assert increased cost as one of the bases for their motions. Also, because the terms of each decree are essentially the same, the decrees often will be referenced in the singular.

settled by the decree, EPA claimed that defendants and other engine manufacturers violated the Clean Air Act, 42 U.S.C. § 7401, *et seq.*, and its implementing regulations by selling engines that emitted excess pollution and by failing to disclose how the engines operated in real world conditions. A key component of the decree requires defendants to meet by October 1, 2002, engine emissions standards that will not otherwise be applicable until January, 2004. Defendants now seek a modification that will postpone this "pull ahead requirement" on the grounds that unanticipated cost increases make compliance with the decree substantially more onerous while reducing its benefits to the public. In addition, Caterpillar seeks to prevent EPA from applying its recently established non-conformance penalties ("NCPs") for Model Year 2004 to Caterpillar for failure to meet the October 2002 deadline. Caterpillar also challenges EPA's approval of certain emission control strategies developed by other engine manufacturers to comply with the decrees. Upon consideration of the motions, the opposition thereto, and the record of the cases, the court concludes that defendants' motions must be denied.

I. BACKGROUND

These cases involve federal regulation of emissions of nitrogen oxides ("NOx") from heavy duty diesel engines. NOx is a pollutant that contributes to smog and airborne particles that adversely affect human health. The Clean Air Act (the "Act") sets standards for NOx emissions from heavy duty diesel engines and requires engine manufacturers to obtain a "Certificate of Conformity" with the standards for each engine family and each model year of engines they produce. An application for a Certificate of Conformity must be supported by data showing that a representative engine tested on EPA's Federal Test Procedure for Heavy Duty Engines ("FTP") complies with the Act's emissions standards. The application must also include

a description of any "auxiliary emission control device" ("AECD")² installed on the engine that changes the engine's emissions when operated in real world, as opposed to laboratory, conditions. EPA uses the engine manufacturers' disclosure of AECDs in the application for certification to screen for "defeat devices," which are prohibited by Section 203(a)(3)(B) of the Act. Defeat devices are defined under the regulations implementing the Act as AECDs that "reduce the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use." 40 C.F.R. § 86.094-2. The purpose of the AECD reporting requirement and the defeat device prohibition is to ensure that an engine's emission performance in normal operating conditions is consistent with the test results used to support the certificate application.

In the enforcement actions brought against defendants and other engine manufacturers,³ EPA alleged that from 1987 to 1998 the defendants sold heavy duty diesel engines equipped with defeat devices that increased NOx emissions in on-highway truck operation by two to three

² Under the Act's regulations, an AECD is defined as any element of design which senses temperature, vehicle speed, engine RPM, transmission gear, manifold vacuum, or any other parameter for the purpose of modulating, delaying, or deactivating the operation of any part of the emission control system. *See* 40 C.F.R. § 86.082-2. EPA alleged in its enforcement actions that the computer algorithm used by defendants to modulate how their engines operate is such an AECD.

³ The other engine manufacturers subject to consent decrees are Cummins Inc. ("Cummins"), Mack Trucks, Inc. ("Mack Trucks"), and Volvo Trucks North America, Inc. ("Volvo Trucks"). Each manufacturer is subject to its own decree, but the decree provisions at issue here are common to all of the decrees. DDC and Caterpillar, however, are the only manufacturers challenging the decrees. Cummins was permitted to file an amicus curiae brief. In its brief, Cummins contends that it has invested significant time and resources to achieving compliance with its decree and that it will meet the October 2002 deadline. Cummins therefore urges the court not to grant DDC's and Caterpillar's motions because granting the motions would place it at a severe competitive disadvantage, something the consent decrees sought to avoid.

times the 4.0 gram per brake horsepower hour ("g/bhp-hr.") regulatory standard (the "4.0 gram requirement"). According to EPA's allegations, the defeat devices achieved this effect through altering the engines' fuel injection timing during highway operation. The fuel injection timing used in the FTP, however, remained the same, and therefore the defeat devices were not detected during testing. The effect of the altered timing was to improve fuel economy at the expense of increasing NOx emissions.

Defendants argued that EPA's regulations during this period did not clearly prohibit the fuel injection timing strategies they were using. Following a year of negotiations, the parties reached a settlement by agreeing to be bound by the consent decree. After a period of public comment, the court approved the decree on July 1, 1999, finding that the decree would serve the public interest. Defendants thus avoided, without admitting liability, the possibility that their existing engines would fail to receive EPA certification, a circumstance that would have caused an immediate shutdown of their assembly lines.

The decree required the phased-in manufacture by defendants of lower-emission engines without defeat devices. Because defendants asserted that they could not immediately eliminate the defeat devices without making the new engines they would produce unmarketable, *see* Consent Decree ¶ 9, the decree gave them until October 1, 2002, to develop the new engines, during which time they could continue to sell their old ones. In exchange for this delay in enforcement, all new engines sold by defendants as of October 1, 2002, must meet an emission standard of 2.5 g/bhp-hr. NOx (the "2.5 gram" or "pull ahead" requirement).⁴ Under otherwise applicable law, defendants would not be subject to this standard until January 1, 2004, fifteen

⁴ This standard applies where NMHC (nonmethane hydrocarbon) emissions do not exceed 0.5 g/bhp-hr. If this NMHC standard is not met, the NOx standard is 2.4 g/bhp-hr.

months later. *See* 40 C.F.R. § 86.004-11(a)(1)(I). The pull ahead was intended to partially offset the alleged excess emissions from the engines defendants sold during the years prior to the decree and the three years between the entry of the decree and the deadline for elimination of the defeat devices. In turn, setting both deadlines for the same date allowed defendants to develop their new engines to simultaneously meet both requirements, rather than going through the design process twice. At the time the decree was entered, EPA projected that the pull ahead would achieve a 1.2 million ton reduction in NO_x emissions over twenty-five years.

The decree provided that if defendants were not able to meet the October 1, 2002, deadlines, they could continue to sell non-compliant engines through three mechanisms: 1) payment of Non-Conformance Penalties ("NCPs"), which would be calculated to correspond to the cost of compliant engines so as to maintain a level playing field between defendants and those engine manufacturers who met the deadline; 2) utilization of emissions averaging, banking, and trading ("ABT"), by which defendants can generate emissions credits towards compliance through reducing emissions in other areas; and 3) a limited provision allowing post-deadline sales of non-compliant engines through matching pre-deadline sales of compliant engines. EPA issued its proposed rule for NCPs for the 2004, 2.5 gram standard in January, 2002, and issued its final rule on August 2, 2002.

Each engine manufacturer subject to a decree is required to designate an independent monitor to file regular progress reports with EPA. Following entry of the decrees, all of the engine manufacturers initially indicated to EPA that they were developing an emission control system called "cooled exhaust gas recirculation" ("EGR") in order to achieve the 2.5 gram requirement. EPA discussed with the manufacturers the kinds of AECDs these EGR systems

would require. At the December 13, 2000, status conference before this court, DDC indicated that, although it had concerns regarding insufficient lead time for customer testing of its new engines, it still planned to meet the October 2002 pull ahead deadline using the EGR technology. EPA became concerned, however, that the AECDs the manufacturers were contemplating did not adequately address problems associated with the EGR technology, including problems with condensation, overheating, and air handling, and would therefore undermine the emissions benefit of the pull ahead engines. EPA expressed these concerns in a letter to the manufacturers in January, 2001. Meanwhile, defendants and several other engine manufacturers had approached EPA to request an amendment to the decrees postponing the deadline, and negotiations were underway.

In March, 2001, Caterpillar announced its decision to forego the EGR technology in favor of developing another emission control strategy called advanced combustion reduction technology (“ACERT”). Then on April 17, 2001, Cummins announced that it would meet the October 2002 deadline by using the EGR technology. Shortly thereafter, Mack Trucks announced that it also would meet the deadline using EGR. On June 5, 2001, EPA advised all the manufacturers that it could not agree to an amendment to the consent decrees that would modify the October 2002 deadline.

Those manufacturers who still sought to use EGR technology continued their engineering efforts to address EPA’s concerns regarding developing AECD’s to regulate condensation, overheating, and air handling. Based on the substantial progress made by the manufacturers as of the spring of 2002 and based on EPA’s further understanding of the AECDs, EPA no longer viewed the manufacturers’ AECDs as problematic. Therefore, on March 4, 2002, EPA advised

Cummins, DDC, Mack, Renault and Volvo that their AECDs would likely be approved, but that final action would await a full review of each manufacturers' certificate applications.

On April 1, 2002, EPA approved Cummins' application for Certificates of Conformity for two engine families that employ EGR. This approval includes the limited use of the AECDs, which Caterpillar challenges in this action. On July 16, 2002, EPA issued a Certificate of Conformity to Mack for a compliant engine which will also employ limited use of the challenged AECDs. Caterpillar has two pending applications for certification of its "bridge engine," which will not meet the 2.5 gram standard and will require payment of NCPs. Caterpillar also seeks EPA approval of AECDs for its bridge engines, although the AECDs are different from those that it challenges in its motion currently before the court.

On February 28, 2002, DDC invoked the decree's dispute resolution provision by notifying EPA of a dispute regarding whether the decree's pull ahead requirement continued to serve the public interest. Caterpillar invoked dispute resolution in March, 2002, notifying EPA of the same dispute regarding the pull ahead requirement, as well as its dispute regarding the application of the 2004 NCPs under the decree and EPA's approval of its competitors' AECDs. After a period of informal negotiations, defendants invoked formal dispute resolution on May 10, 2002, by providing EPA with a formal Statement of Positions ("SOPs"), to which EPA responded with its own SOPs. The SOPs of both DDC and EPA included various expert analyses.

II. ANALYSIS

A. Standard of Review

1. Interpretation of Decree

Consent decrees are treated as contracts and interpreted under principles of contract law. *See, e.g., United States v. Western Elec. Co.*, 900 F.2d 283, 293 (D.C. Cir. 1990). Caterpillar argues that the decree should be interpreted to bar EPA from subjecting Caterpillar to the recently established 2004 NCPs for its failure to meet the October 2002 deadline. Caterpillar also argues that the decree should be interpreted to bar EPA from granting approval to certain AECDs used by its competitors in their pull ahead engines.

2. Modification of Decree

A court may modify a consent decree "only if the general rules governing judicial revision of judgments are satisfied." *United States v. Western Elec. Co.*, 46 F.3d 1198, 1202 (D.C. Cir. 1995). Under Rule 60(b)(5) of the Federal Rules of Civil Procedure, a court may provide relief from a final judgment when "it is no longer equitable that the judgment should have prospective application." Fed. R. Civ. P. 60(b)(5). Such relief is not warranted, however, merely because a party finds that "it is no longer convenient to live with the terms of a consent decree." *Rufo v. Inmates of Suffolk County Jail*, 502 U.S. 367, 383 (1992).

Requests to modify consent decrees are to be approached with caution. As the D.C. Circuit has noted, modification of a judgment "is an extraordinary remedy, as would be any device which allows a party ... to escape commitments voluntarily made and solemnized by a court decree." *NLRB v. Harris Teeter Supermarkets*, 215 F.3d 32, 35 (D.C. Cir. 2000) (quoting *Twelve John Does v. District of Columbia*, 861 F.2d 295, 298 (D.C. Cir. 1988)). The party

seeking modification therefore bears the burden of showing that: 1) changed factual conditions have made compliance with the decree "substantially more onerous;" 2) the decree has become "unworkable" due to unforeseen obstacles; or 3) enforcement of the decree would be "detrimental to the public interest." *Id.* (quoting *Rufo*, 502 U.S. at 384).

Where the moving party relies on changed circumstances, it is not necessary to demonstrate "absolute unforeseeability," *Evans v. Williams*, 206 F.3d 1292, 1298 (D.C. Cir. 2000), but the change must be shown to be "beyond the defendant's control ... and not contemplated by the parties." *Rufo*, 502 U.S. at 380-81. In addition, the court must be assured that "the central purpose of the decree remains intact." *Western Elec.*, 46 F.3d at 1207. If the moving party meets its burden of establishing that a change in circumstance warrants modification of the decree, it must still demonstrate that the proposed modification is "suitably tailored to the changed circumstance." *Rufo*, 502 U.S. at 393.

In this case, defendants rely on the first and third grounds for modifying the decree, arguing that the unanticipated increase in cost and decrease in lead time have made the decree more onerous to defendants and the trucking industry, while simultaneously reducing its expected public health benefit. Caterpillar also argues that, even if EPA is permitted under the language of the decree to apply the 2004 NCP standards and approve the AECDs used by Caterpillar's competitors, such action would constitute changed circumstances justifying revision of the decree.

B. Increased Cost

Defendants contend⁵ that both they and EPA vastly underestimated the cost of meeting the October 2002 deadline at the time the decree was entered, and that this unanticipated increase in cost makes the decree substantially more onerous to defendants, the trucking industry, and the general economy. Defendants argue that the decree therefore no longer serves its purpose of balancing health and economic interests. EPA argues that the decree was not premised on cost-effectiveness, that the parties contemplated the possibility of cost increases, and the cost increases are not nearly as substantial as defendants allege.

As evidence of the alleged cost increase, defendants note that at the time the decree was entered, EPA estimated that the cost of meeting the October 2002 deadline would be in the range of \$300 to \$800 per engine. In its January 2002 NCP rulemaking process, however, EPA estimated the cost of complying with the 2.5 gram requirement when it goes into force in January, 2004 at \$8,943 per engine. Defendants also allege that while EPA estimated at the time the decree was entered that it would cost \$200 per ton of emissions reduced, the actual cost will be \$9,610 per ton. Defendants argue that the parties did not anticipate cost increases of this magnitude and that such costs will devastate not only defendants and other engine manufacturers, but also the truck manufacturing industry, suppliers, motor carriers, and the general economy. Defendants additionally complain that EPA has never before imposed costs of this magnitude in its regulation of NO_x emissions.⁶

⁵ DDC has briefed the cost issue in detail and submitted expert reports. Caterpillar provides a cursory briefing and incorporates DDC's briefs by reference.

⁶ For comparison, defendants note that EPA calculates the near-term costs of the next generation of NO_x emissions standards for heavy duty engines, to take effect in 2007, at \$2,125 per ton of emissions reduced.

Defendants further contend that EPA's estimated cost of \$8,943 is too low, and provide their own estimate of \$14,189. EPA's estimate is too low, defendants allege, because it: 1) underestimates the loss in fuel economy entailed in meeting the deadline; 2) neglects to include higher maintenance costs incurred due to the lack of adequate time for consumer testing; 3) underestimates the extent to which costs will be passed-through to consumers; and 4) underestimates the purchase price of new trucks as a factor in the cost. Defendants also argue that there are additional uncertainty costs due to the lack of lead time for testing the new engines.

EPA responds that defendants' reasoning amounts to comparing apples with oranges. The cost estimates compared by defendants are not, EPA asserts, "before" and "after" estimates of the same thing; instead, they take into account distinct factors in order to achieve distinct purposes. The \$300-\$800 figure that appears in the consent decree was the cost estimated by EPA in 1997 of changing the regulatory emission standard for NO_x from 4.0 grams, the standard at the time, to 2.5 grams, the standard that would become generally applicable in 2004. In such a standard setting context, EPA estimates the economic impact of the rule change without regard to additional costs that regulated entities may incur as a result of an enforcement action based on allegations that they are not in compliance with the existing standard. In other words, EPA contends, this measure presumed, as its starting point, engines that complied with the then-current 4.0 gram standard, and therefore did not include the cost of eliminating defeat devices.

The \$8,943 figure, on the other hand, was the result of EPA's 2002 rulemaking to set NCPs for the 2004 standards. Because NCPs are intended to subject non-complying manufacturers to costs equivalent to those that complying manufacturers will incur in crafting engines that conform to the 2.5 gram requirement, this measure must take into account the fact

that engines produced by non-complying manufacturers do not comply even with the previous 4.0 gram requirement. They instead emit at a rate of 6.0 grams. Thus, to serve their purpose, the NCPs must be based upon bringing a 6.0 gram engine into compliance with the 2.5 gram standard.

This obviously entails a higher cost than moving from 4.0 grams to 2.5 grams. As EPA noted in its NCP proposal, “this difference ... has a significant impact on every cost category ... including fixed, hardware, operating (including fuel consumption), and manufacturing costs.” EPA Draft Technical Support Document: Nonconformance Penalties for 2004 Highway Heavy Duty Diesel Engines (Jan. 2002), at 16, 30. For example, in the 1997 standard setting estimate, EPA projected no long-term fuel economy cost in moving from the 4.0 gram to the 2.5 gram standard, reasoning that manufacturers would be able to recoup fuel-economy losses over time. To close the wider gap between 6.0 gram and 2.5 gram, however, resulted in a 2.5 percent increase in fuel consumption, corresponding to an average life-time cost increase of \$3,620 (out of the total \$8,943) in the NCP estimate. EPA estimates that if the costs of the standard change alone are isolated from the costs of closing this gap, the costs of compliance with the pull ahead requirement have only increased twenty-two percent over EPA’s 1997 estimate, rather than the 100 to 200 percent increase alleged by defendants.

Defendants attempt to refute this reasoning by arguing that EPA knew that defendants’ engines were not in compliance with the 4.0 gram standard when EPA calculated its standards setting estimate in 1997. This argument is neither here nor there. EPA does not contend that it did not know about defendants’ use of defeat devices—after all, that knowledge was the basis of the enforcement action that led to the decree. EPA simply asserts that the cost it estimated in its

1997 standards setting did not encompass eliminating those devices. While EPA has presented a logical reason and support from the record as to why its estimate did not include this cost, defendants have not been able to point to anything in the record suggesting that EPA's estimate *was* intended to—or in fact did—include this cost. As EPA points out, the only reason defendants can now point to the total estimated compliance costs (including both the cost of complying with the standard change and the cost of eliminating the defeat devices) is because the decree set the same October 2002 deadline for both obligations.⁷

Defendants emphasize EPA's statements in its motion to enter the decree that the decree represented "an appropriate balance of public health and economic interests" and would provide sufficient lead time to ensure "reliability and marketability of new engines." Mem. to Ent. at 6-7. While economic considerations surely played some role in crafting the decree, that does not answer the question of whether the alleged cost increase constitutes a changed circumstance sufficient to justify the decree's modification. EPA argues convincingly that both parties to the decree anticipated the risk of cost increases and provided ways to manage this risk, while recognizing that such increases were not to derail the decree's implementation. First, the parties provided NCPs as a means to comply with the decree if defendants were not able to manufacture

⁷ Defendants also argue that the Mercedes MBE 4000, an engine certified by EPA as meeting the 4.0 gram standard without the use of defeat devices, demonstrates that the majority of the cost incurred in meeting the 2.5 gram standard lies in achieving the reduction from 4.0 grams to 2.5 grams, and not in the reduction from 6.0 grams to 4.0 grams through the elimination of defeat devices. Defendants contend that the MBE 4000 is comparable in cost and performance to DDC's current engines. EPA, however, disputes that contention, pointing out the extensive redesigning involved in making the MBE 4000. The details of the dispute are provided in sealed declarations, but it suffices to say that the court remains skeptical of defendants' claim that an engine Mercedes spent so much time developing and which is considered a technological breakthrough would be no more costly than defendants' current engines. If that were the case, one wonders why defendants' own engines have not obtained EPA certification.

compliant engines by the October 2002 deadline. Cost increases are clearly the most obvious reason that NCPs would be necessary. While defendants argue that NCPs are just as economically burdensome as the pull ahead requirement, that argument is entirely circular. The NCPs are *intended* to match the costs of compliance so as to avoid providing an incentive not to comply, but they also allow a manufacturer to manage product development and financial risk by phasing in its new engine production. As EPA points out, defendants waited seven months after EPA's announcement that it would not agree to amend the decree to invoke dispute resolution, and during those seven months they continued to invest in producing current engines to profit from the "pre-buy" underway, *see infra*, rather than moving ahead with their new engine development like other manufacturers such as Cummins. Defendants' argument that their costs have increased due to lack of adequate lead time thus ring hollow. The decree provided four years lead time in accordance with Clean Air Act requirements; that defendants allowed themselves far less is not reason to set aside the decree, especially where NCPs are available as an alternative means of compliance.

Second, the parties included a provision in the decree establishing that neither technical nor financial difficulties would constitute a "force majeure" excusing defendants from complying with the decree. Defendants argue that it is inappropriate for EPA to invoke this provision because defendants are not contending that the decree should be modified on force majeure grounds. Regardless of whether defendants are relying on the force majeure provision, however, EPA is correct in pointing out that the provision clearly indicates that the parties contemplated cost increases. *See Harris Teeter*, 215 F.3d at 36 (noting that "self-imposed hurdles and hurdles inherent in a consent decree's entry" do not justify modification); *Thompson*

v. HUD, 220 F.3d 241, 248 (4th Cir. 1996) (finding that a circumstance could not be considered unanticipated for purposes of modifying a decree where a provision of the decree was “specifically directed” to that circumstance and would only be needed in that circumstance).

In sum, we find that defendants have not met their burden in showing either that the cost increases are of the magnitude they allege or that they were unanticipated. Defendants therefore cannot obtain modification of the decree on those grounds.

C. Public Interest

Defendants argue that as a result of the unanticipated cost increase and lack of lead time they allege, the trucking industry is engaging in a massive build-up or “pre-buy” of current engines before the October 2002 deadline goes into effect. In addition, defendants argue that there will be a corresponding period of depressed demand or “no-buy” after the deadline, as trucking fleets postpone purchasing the new engines due to reliability concerns. As a result of these pre-buy and no-buy periods, defendants contend, older, dirtier engines will remain on the road longer, substantially decreasing the reduction in emissions under the decree. Given this alleged decrease in public health benefits and the increase in the economic burden borne not only by defendants but by the trucking industry and the economy generally, defendants claim that enforcement of the decree has become detrimental to the public interest.

Defendants’ public interest argument hinges, of course, on the validity of their argument regarding the cost increase, discussed above. Using their estimate of a cost per engine of \$14,189, defendants estimate a pre-buy of 48,000 vehicles and a no-buy of the same amount, together resulting in a two-thirds decline in new truck purchases in 2003. Based upon these figures, defendants calculate that the emissions benefits of the decree will be reduced by one-half

to two-thirds of EPA's 1998 estimate of 1.2 million tons over twenty-five years. EPA, of course, contests defendants' cost estimate, *see supra*, and its experts arrive at a current estimate of an even higher emissions benefit of 1.27 million tons. This estimate allows for a pre-buy of 37,500 and a one-third reduction in new truck purchases in 2003.

EPA asserts, however, that even if it adjusts its cost model to account for many of defendants' criticisms, the decree still achieves over 1 million tons in reduced NOx emissions. For example, EPA initially used an estimated average new truck price of \$100,000; defendants contend that the correct figure is \$75,000. EPA notes that defendants derive this price from the owners of large trucking fleets who require and have the bargaining power to obtain lower prices, omitting the small fleets and specialty trucks that cost more. However, EPA dropped its figure to \$90,000 in the sensitivity analysis it conducted in response to defendants' criticisms. This adjustment reduced EPA's projected emissions benefit by .01 million tons. EPA also adopted defendants' higher fuel economy loss and maintenance costs in its sensitivity analysis, which reduced the emissions benefit by an added .06 million tons. Finally, EPA adopted defendants' estimate of the long term price impact of the pull ahead requirement, resulting in an additional reduction of .19 million tons.⁸ Thus, even adopting defendants' figures in many areas, the overall emissions benefit of the decree still stands at 1.01 million tons.

⁸ EPA continues to dispute defendants' figures on all of these matters. For example, EPA notes that three factors determine the long term price impact of the new engines. Two of these factors, improved product efficiency and lower price elasticity, tend to reduce the price impact, resulting in higher overall cost. However, the third factor, the new emissions standards that go into effect in 2007, would tend to increase the price impact and reduce the overall cost. Defendants' model assumes that the new emissions standards will have no increased cost associated with them, an assumption that appears ironic given their arguments in the present case. If the difference between EPA's and defendants' estimates of long term price impact is split, the reduction in emissions benefit would only be .11 million tons.

EPA did not, however, adopt defendants' estimates with regards to the pre-buy, no-buy, and cost pass-through in its sensitivity analysis, and it provides convincing reasons for not doing so. As to the cost pass-through, defendants projected that manufacturers would pass on fully 100 percent of their increased costs to the customers. EPA estimated a pass-through of eighty percent based on the fact that some of the increased costs related to maintenance and would therefore, by necessity, be borne by the end user, an argument to which defendants do not respond.

The pre-buy and no-buy figures together measure how long it will take the industry to return to its normal market condition of approximately 150,000 new trucks and 200,000 new engines sold per year. Defendants catalogue the allegedly unprecedented increase in orders for their *engines* over the past months. For instance, DDC's orders increased from 2,703 in January, 2002, to 7,260 in September, 2002, or double its usual forecast. However, the impact of this phenomenon on defendants themselves is unclear; while it indicates that orders will probably fall for a period of time after October 2002, it does not reveal how long this period will last.⁹ Moreover, defendants clearly profited from this pre-buy in the months prior to the deadline, and a significant percentage of the work force they contend they will have to dismiss as a result of the deadline were in fact temporary workers hired to meet this increased demand.

⁹ Defendants attempt to undercut EPA's estimate of the decree's benefits by pointing out that one of the market forecasters EPA initially relied upon, Rhein Associates, Inc., has since revised its projections of engine sales for 2003 downward from 170,000 to under 150,000, and has also extended its estimate of the period of depressed demand from the first to the second quarter of 2003. EPA points out, however, that it estimated 2003 engine sales at only 90,000 and projected decreased demand until the second quarter of that year. Thus, Rhein Associate's revised projections are not inconsistent with EPA's original ones.

Defendants base their economic argument in large part, however, not on the engine pre-buy but on the alleged *truck* pre-buy and its impact on the trucking industry. This effect, however, is even less clear. As EPA notes, the extent of such a pre-buy is inherently limited by the existing production capacity of the engine manufacturers and the available capital of the fleets prior to the October 2002 deadline. EPA further notes that an increase in new truck orders does not necessarily translate into an increase in purchases; significant discrepancies between these two measures have been reported in the past.¹⁰ Moreover, the increase in orders began to fall off in the months prior to the deadline, and according to the current data, some months of 2002 showed increases over last year, while others showed decreases.¹¹ Finally, EPA notes that there are costs of pre-buying which defendants do not take into account, such as the higher operating costs for older trucks.

The largest single source of defendants' projected decrease in the decree's emissions benefits is its estimate of a decline in new purchases after the October 2002 deadline. Defendants estimate that this no-buy will suppress demand for new trucks until 2004 and will equal the pre-buy prior to the deadline. As EPA notes, however, defendants' estimate is based solely on the statements of a few operators of large fleets, who are not representative of the industry as a whole and who share defendants' interest in postponing the pull ahead. In fact, the

¹⁰ It costs little or nothing to secure a place in line for a pre-buy truck, and orders can be canceled as the time draws near to actually having to commit the funds. For example, truck fleet operators provided EPA with a chart, based upon data compiled by a market forecaster, projecting that March 2002 truck sales would be 25,000 units, a higher than average amount that would indicate that a pre-buy is occurring. However, actual truck sales for March 2002 were below March 2001 levels.

¹¹ For example, May 2002 sales data showed sales of 13,906 trucks, considerably below the average monthly sales of 16,214 trucks since January 2000. May 2002 sales increased slightly over the same month in 2001, but June 2002 sales declined slightly compared to June 2001.

introduction of a survey regarding the no-buy conducted by a trucking association and submitted by DDC, indicates that the association is actively seeking postponement of the deadline. Even so, as EPA points out, several of the experts and fleet operators cited by defendants predict that they will return to the market in 2003, not 2004, which corresponds closely to EPA's own estimate.

In addition to arguing that the decree's benefits have been substantially undermined by unexpected cost increases, defendants argue that they can provide an alternative means of obtaining those same benefits at a lower cost. Defendants propose to accomplish the same extent of emissions reduction through refitting their current engines to pollute less. The emissions savings from the refitting would then be used to offset the emissions in excess of the pull ahead requirements in the decree.

Defendants, however, cannot avoid their obligations under the decree simply by providing a seemingly attractive alternative. The standard for modifying a decree is whether changed circumstances have made compliance with the decree substantially more onerous or detrimental to the public interest, not whether the public interest might be better served by a different approach. As discussed above, defendants have failed to meet this standard. Moreover, although defendants offer their alternative as a "win-win" situation that provides the same public health benefits as the decree without causing economic dislocation, EPA has raised a number of serious concerns about their proposal. EPA notes that defendants have not shown that the proposal would completely offset the extra emissions that would result from extending the decree deadline. Nor have defendants shown that it can achieve the requisite level of reductions without a costly incentive program.

Finally, defendants disregard the impact their alternative would have upon those manufacturers who have achieved compliance. EPA notes the public interest value of preserving the benefit of the bargain of the consent decrees for all the parties to them. That bargain allowed defendants and the other settling engine manufacturers four years to eliminate defeat devices and thus avoid an immediate shutdown in exchange for meeting the 2.5 gram requirement fifteen months early. Thus, delaying the pull ahead requirement would have the effect of depriving EPA of the benefit of its bargain, and would also deprive those engine manufacturers who have developed compliant engines of the level playing field guaranteed by the decree.

In sum, EPA has provided substantial reason to doubt defendants' estimates of the extent of the pre-buy and no-buy and their impact on the emissions reductions achievable under the decree. Even adopting many of defendants' figures, EPA provides strong evidence that the decree will still offer substantial public health benefits. The court rejects defendants' attempt to invoke calamitous scenarios resulting from a decree they voluntarily entered into four years ago and failed to challenge until the eve of its key requirements.

D. 2004 NCPs

Caterpillar¹² argues that the decree should be interpreted to apply the NCPs applicable when the decree was entered rather than the 2004 NCPs. In the alternative, Caterpillar argues that even if the previous NCPs do not apply as a matter of decree construction, equity and changed circumstances require that the decree be modified so that they apply. We note that at the time the parties submitted their briefs in July, 2002, EPA had issued a proposed rule for the

¹² DDC does not join in this challenge to the decree, but states that "to the extent that the Court agrees with Caterpillar [regarding NCPs], this could reduce DDC's concerns" about the cost of the decree. Def.'s Reply Mem. at 19 n.17.

2004 NCPs, but had not yet promulgated the final rule. The final rule was then promulgated on August 2, 2002.

1. Construction of the Decree

Caterpillar argues that the decree is silent or ambiguous as to the time by which the 2004 NCPs must be established in order to apply under the decree to engine manufacturers who do not meet the October 2002 deadline. Because of this alleged ambiguity, Caterpillar contends that the court may consider parole evidence in interpreting the decree and may imply a reasonable time by which the new NCPs should be promulgated. Caterpillar points to statements made by EPA in a rulemaking prior to entry of the decree as evidence that the parties understood that EPA would promulgate the new NCPs in 1999, and that such a time frame was necessary to give manufacturers sufficient time to make business decisions regarding engine design and compliance. Caterpillar therefore argues that by not issuing the new NCPs until August 2, 2002, EPA delayed too long for them to apply under the decree.

EPA, on the other hand, asserts that the decree is clear as to the circumstances under which each set of NCPs would apply, and therefore the court is barred from using parole evidence to interpret the decree or imply a reasonable time term. EPA argues that the 2004 NCPs apply under the decree if they have been “established by regulation” prior to the October 2002 deadline. Consent decree, ¶ 116(a)(iii)(E). As a default in the event that the new NCPs have not been established by the deadline, EPA argues, the decree provides that the NCPs in place at the time the decree was entered will take effect.

The starting point in contractual interpretation is always the actual wording of the disputed provision. Thus we begin with the text of the governing provision of the decree:

For HDDEs [heavy duty diesel engines] manufactured on or after October 1, 2002, ... NCPs shall be calculated in accordance with the NCP procedures, equations, and values ... applicable to Model Year 2004 HDDEs [I]f no ... values or factors used to calculate the engineering and development component of the NCP for Model Year 2004 HDDEs are established by regulation, then the values and factors shall be those applicable to the 1998 Model Year multiplied by 1.5. *Id.*

The court agrees with EPA that this provision is perfectly clear. It expressly contemplates two possible scenarios and provides for the NCPs that will apply in each scenario: the 2004 NCPs will apply to engines manufactured after the pull ahead deadline of October 1; however, “if no” such NCPs are “established by regulation,” then the 1998 NCPs shall apply. Because EPA stated in its brief that the 1998 NCPs apply under the decree only if the 2004 NCPs are not “‘established by regulation’ *when the engine is manufactured,*” Pl.’s SOP at C0803 (emphasis added), Caterpillar attempts to argue that this interpretation depends upon invoking additional language not present in the actual decree. This argument is unpersuasive. EPA does not incorrectly cite the provision; the citation in italics merely spells out the effect of the phrase, “[f]or HDDEs manufactured on or after October 1, 2002 ...,” that begins the provision.

Because the provision of the decree is clear as to which NCPs should apply, the court may not consider extrinsic evidence of the parties’ intent. Nonetheless, we note that EPA argues convincingly that even if the court does look to parole evidence, that evidence does not show that the parties intended to establish a deadline for EPA to promulgate the new NCPs, let alone when they intended that deadline to be. Such an argument is undercut by the fact that EPA has no duty to promulgate the NCPs in the first place.¹³ Moreover, the EPA statements cited by

¹³ As EPA notes, many of the cases cited by Caterpillar are inapposite because they address situations where a party was obligated under the contract to perform a certain task and fails to do so within a reasonable time.

Caterpillar do not show that EPA had agreed in the decree to promulgate the 2004 NCPs by 1999 or any particular deadline. The statements projecting 1999 as the date when the new NCPs would be issued were made in the context of a rulemaking that began prior to and independently of the negotiation and entry of the decree, and therefore do not constitute evidence of EPA's intentions regarding the decree at the time it was entered. Caterpillar also cites EPA's statement, made in its 1999 technical review, that it was not necessary "to make a determination regarding the likelihood of a technical laggard until the end of this year [2000], since that would allow us enough time to finalize NCPs prior to the start of the 2004 model year if they are needed." The EPA action this statement declares to not be necessary "prior to" the end of 2000 is the "determination of the likelihood of a technical laggard," not the establishment of new NCPs. EPA also stated in the technical review that "previous experience with NCPs indicates that they can be put into place within two years." Thus, EPA's statements emphasize the importance of finalizing the 2004 NCPs prior to the 2004 Model Year and indicate that two years is enough time to do so, but they do not indicate EPA's intentions regarding how much if any "lead time" for new NCPs was provided in the decree. In fact, EPA did issue the 2004 NCPs in 2002, giving the industry two years' notice. While Caterpillar may have expected that the 2004 NCPs would be promulgated earlier, neither the text of the decree nor EPA's statements indicate that the parties intended to set a deadline when they entered into the decree.

EPA also refutes Caterpillar's suggestion that the purpose of the NCPs was to allow a manufacturer to weigh the costs of compliance against the costs of paying NCPs. If that were the case, EPA points out, engine manufacturers would be able to calibrate the intensity of their compliance efforts to the NCP for each new standard, allowing them to opt for noncompliance

when compliance becomes more expensive than the NCP. This kind of second-guessing, however, was clearly not Congress' intent in providing for NCPs:

The principal purpose of the Clean Air Act is to protect public health. The mere payment of an economic penalty required by the delayed compliance penalty provision should not be insulation against achieving requirements related to protection of public health [T]he delayed compliance penalty ... is not intended to provide an opportunity for continued non-compliance.

Senate Debate on S.B. 252 (June 8, 1977), *reprinted in* Environmental Policy Division, Congressional Research Service, 3 A Legislative History of the Clean Air Act Amendments of 1977, at 705, 735 (Aug. 1978) (Serial No. 95-16). Instead, NCPs were intended to give a manufacturer that has made every effort to comply, but has been unable to achieve compliance, a chance to continue to participate in the market. Thus, NCPs serve their purpose even if promulgated after a company has made its engine design decisions, since those decisions should be based on whether compliance can be achieved, not on whether compliance is less expensive than paying NCPs.

2. Changed Circumstances

If the court finds that the decree does not, as a matter of construction, bar EPA from applying the 2004 NCPs to manufacturers who fail to meet the October 2002 deadline, Caterpillar argues, in the alternative, that the EPA's alleged delay in issuing the 2004 NCPs and the amount of the proposed NCPs constitute changed circumstances warranting modification of the decree. Caterpillar argued in its brief that such changes were "not foreseen or foreseeable" and that the continued uncertainty as to the timing and amount of the final rule for the 2004 NCPs made the decree substantially more onerous.

As an initial matter, we note that the final rule has now been promulgated. In addition, the amount of the NCPs in the final rule is approximately twenty-five percent lower than the NCPs in the proposed rule.¹⁴ This alone should significantly reduce the “uncertainty” burden Caterpillar alleges. Caterpillar’s allegations that this uncertainty has caused it harm by affecting its pricing policies is further belied by Caterpillar’s recent representations to its investors that “it really doesn’t matter what the penalty is, whether it’s under the ... current proposal or back to something similar to the original consent decree, it really won’t matter. It will still be a relatively immaterial impact this year.” Pl.’s Ex. 1, Caterpillar, Inc. (CAT)-Q1 2002 Financial Release Conference Call at 12 (July 16, 2002) (transcribed by Fair Disclosure Financial Network Inc.).

Moreover, the structure of the decree indicates that Caterpillar assumed the risk relating to when EPA would promulgate the 2004 NCPs and how much those NCPs would be. The decree makes certain changes to the regulatory structure of NCPs that were bargained for by the parties. The parties could also have bargained to set a cap on the NCPs or to set a deadline for their promulgation by EPA, but they did not do so. Thus, the NCP provision was part of the “dickered terms” and the assignment of risks contained in the decree. *See United States v. Baroid Corp.*, 130 F. Supp. 2d 101, 105 (D.D.C. 2001) (finding that it would be inconsistent with contract law to modify a consent decree based on impracticability when the parties “should [have] anticipate[d] the ‘business risks which are fairly to be regarded as part of the dickered terms’” (references and internal citations omitted)). Caterpillar, a sophisticated company with

¹⁴ The proposed rule estimated NCPs for HHDEs that emit between 3.0 and 3.5 grams of NOx at between \$4,680 and \$9,043. The final rule estimates the NCPs at between \$3,640 and \$6,946.

extensive regulatory experience, should have been aware that promulgation of regulations can be a lengthy process and that the cost of compliance would be the most important factor in the ultimate amount of the penalties. It therefore cannot claim that the “changes” it alleges were unforeseeable. *See id.*

E. Competitors’ AECDs

Caterpillar also challenges EPA's granting of Certificates of Conformity to its competitors’ pull ahead engines that utilize certain AECDs to regulate engine condensation, overheating, and air handling. Caterpillar contends that these AECDs are not necessary to protect the engines and are in fact defeat devices prohibited by the Clean Air Act and the consent decrees. EPA argues that Caterpillar does not have standing to challenge EPA’s approval of competitors’ AECDs in this forum because Caterpillar is not a party to its competitors’ decrees.

EPA’s argument is persuasive. As EPA points out, there is no express or implied provision in Caterpillar’s decree allowing Caterpillar to raise disputes regarding a competitor’s Certificate of Conformity. The dispute resolution procedures of Caterpillar’s decree allow Caterpillar to dispute matters arising under or with respect to “this Consent Decree.” This language clearly is restricted to Caterpillar’s decree, not to any of the six other related decrees to which Caterpillar is not a party. Likewise, the other decrees, which contain similar language to Caterpillar’s decree, do not provide for challenges by non-parties such as Caterpillar.

Caterpillar argues that the court should nonetheless entertain its arguments regarding EPA’s approval of its competitors’ AECDs as a matter of equity because of the special circumstances at stake. The only special circumstances Caterpillar identifies, however, are the potential competitive effects of the AECDs. While it is true that EPA’s responsibility to review

AECDs may have competitive implications, there is nothing unusual about its approval of the AECDs. EPA approves AECDs as part of its normal regulatory function of reviewing applications for Certificates of Conformity. Thus, Caterpillar has not provided a basis for this court to invoke its extraordinary powers of equity in contravention of the decree provisions.

In sum, the court finds that the decree clearly provides for application of the 2004 NCPs to engine manufacturers who do not meet the October 2002 deadline, and Caterpillar has not met its burden in justifying revision of the decree. Nor has Caterpillar satisfied the jurisdictional and procedural prerequisites to challenging EPA's approval of its competitors' AECDs. Caterpillar's efforts to cast the decree as onerous ring hollow in light of its late-in-the-day decision to switch to the ACERT system. Caterpillar made this decision knowing that it could not manufacture ACERT engines meeting the October 2002 deadline and without receiving any representations from EPA regarding the NCPs that would apply as a consequence.

III. CONCLUSION

For the foregoing reasons, the court finds that defendants' motions for review and modification of the consent decree must be denied. Accordingly, it is this 5th day of September, 2002, hereby

ORDERED that the motion of Detroit Diesel Corporation seeking review and modification of the consent decree is **DENIED**; and it is further

ORDERED that the motion of Caterpillar, Inc. seeking review and amendment of the consent decree is **DENIED**.

Henry H. Kennedy, Jr.
United States District Judge

