Testimony of Bruce C. Buckheit before the
House Committee on Energy and Commerce
Subcommittee on Environment

Hearing on
Legislation Addressing
New Source Review Permitting Reform
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Chairman Shimkus, Ranking Member Tonko, and distinguished members of the Subcommittee, thank you very much for inviting me to participate in today's hearing. My name is Bruce C. Buckheit. I served in the Federal government's efforts in the management of environment and safety issues through the Administrations of Presidents Ford through George W. Bush. From 1984, when I filed my first action on behalf of EPA to enforce a New Source Review (NSR) violation until my retirement in 2003 I was directly involved in the administration and enforcement of the Clean Air Act, initially as a Senior Counsel in the Environmental Enforcement Section of the Department of Justice, then as Deputy Director and then Director of the Air Enforcement Division at the Environmental Protection Agency. Upon my retirement I served for four years as a member of the Virginia Air Pollution Control Board, which oversees the rulemaking, permitting and enforcement activities of the Virginia Department of Environmental Quality. I have also provided research and consulting services to a variety of corporations, state and Federal agencies, and non-governmental organizations, principally in the areas of energy and air pollution management in this country. In recent years I have also addressed such issues in a number of foreign countries including Armenia, the European Union, Israel, India, Indonesia, Kosovo, Myanmar, and Viet Nam. I appear today on my own behalf and without compensation.

In my judgment the discussion draft before the Committee today is not in the public

interest and should not be adopted. As I will explain in further detail below, the draft is not needed by the regulated community for any purpose and would not advance one of the fundamental purposes of the Clean Air Act – to eliminate, over time, the disparate treatment of new and existing sources. It would severely impair the ability of the modification rules to effect this purpose and would exacerbate the current barrier to investment in new manufacturing and electric generating facilities created by the difference in the treatment of new and existing facilities. Several of the provisions in the discussion draft pose significant policy issues and enforcement concerns including (1) the addition of the word "actual" in the revisions to sections 169(2) and 171(4) of the CAA; (2) the change in the baseline period for electric generating units; (3) the elimination of the annual emission increase test; (4) the "output" based test; (5) the "intent to restore, maintain or improve the reliability or safety of the source" test; (6) the safety valve for the "reliability" test and (7) the "savings provision" to ensure that there is no benefit to the environment from the draft.

In the course of preparing these remarks I reviewed some of the testimony presented at the February 14, 2018, hearing before this Committee. I will explain below why I disagree with a number of criticisms leveled at the current program during that hearing, specifically (1) the suggestion that the NSR program makes it difficult to maintain the reliability and safety of their facilities; (2) that only short term emissions of pollutants matter; (3) that "most of the things" required under NSR enforcement consent decrees are things the companies are required to do under other CAA programs anyway; (4) that over the past 15 years EPA enforcement officials have tried to expand the definition of modification; and (5) that companies are unable to determine whether a proposed modification will increase annual emissions and (6) that the NSR program, especially as it relates to modified facilities, is counterproductive and far less efficient

than other available CAA options.

BRIEF HISTORY OF NSR AND NSR ENFORCEMENT

The central legislative compromise of the 1967, 1970 and 1977 CAA amendments was an initial focus on new sources. This focus was based on the representation of industry advocates that one did not need to worry about existing sources, since they'd soon be retired, and so they were initially "grandfathered" out of an across the board obligation to install pollution controls. Thus, we have a program for "New Source Performance Standards", but unlike the European Union and a number of other countries, Congress did not impose across-the-board emission limitations for large combustion plants.

While air pollution controls are highly effective in reducing health care and lost productivity costs, and add only minimally to consumers' electric bills, Congress did recognize that these controls can add hundreds of millions of dollars to the cost of new large combustion plants such as power plants and aluminum smelters and impose operating costs that are not insignificant when a well-controlled facility is competing against a grandfathered, poorly-controlled factory. Understanding that this cost advantage would discourage investment in new factories and power plants that would have to use these controls, Congress adopted the NSR modification rules that are at issue today ***intending that these rules would, over time, require that existing sources add modern pollution controls***. The D.C. Circuit recognized this policy choice out 30 years ago in the Alabama Power case,

> "[t]he statutory scheme intends to 'grandfather' existing industries; but the provisions concerning modifications indicate that this is not to constitute a perpetual immunity from all standards under the PSD program."

In seeking a middle ground between perpetual immunity and immediate upgrading of all existing major sources, Congress could have considered a number of different options, including

the age of the unit (as several Canadian states and the EU have done). But, in the 1970s industry argued that, as an environmental program, the test should be whether there is an emissions increase. And now, having benefited for several decades from the exemption they sought, some in industry want to renegotiate the deal.

During my Federal service NSR enforcement actions were relatively rare. Enforcing these rules require a significant amount of information and resources, but, within stationary sources (as distinct from mobile sources), these violations lead to the greatest environmental harm – and so, where detected, are a priority. If a source exceeds an emission limit by 10 percent 800 hours per year, the excess emissions associated with the violation are less than one-percent of the source's permitted emissions. In contrast, enforcing compliance with NSR rules leads to emission reductions of up to 90-98 percent per year, (depending on the effectiveness of the controls for the pollutant at issue) each year thereafter. EPA has encountered several instances where there were sector-wide, gross violations of the NSR rules. And, in my experience, it is these enforcement actions, not the general experience of those who have complied, that have generated the hostility towards the NSR program that has been expressed to you.

In the wood products sector several dozen new factories were built by Louisiana-Pacific, Georgia Pacific and Weyerhaeuser on the assertion that no pollution would be emitted by those facilities. EPA's first knowledge of the existence of such facilities came when an EPA permit writer, on a back country vacation came around a bend in a stream and saw a facility which he would have been responsible for. In the refinery sector, there was a period where refining capacity had increased by fifty percent, even though the number of refineries had not changed. EPA enforcement's initial information on these plant expansions came about through reading

back issues of "The Oil and Gas Journal." The first information about the potential for large modifications at utilities came via an article in the Washington Post about how the process at the time of deregulating the power sector was prompting a resurgence in the use of coal-fired power plants. In each of these instances, significant investigative resources and extensive negotiations (at times after protracted litigation) were required to fully document the violations and subsequently compel the companies to comply with these rules. Since my retirement, EPA/DOJ has completed an additional sector wide enforcement effort involving the carbon black manufacturing sector.

Anticipating a large expansion in nuclear generation, operators of coal-fired power plants let existing units decline to the point where large component failures and lengthy forced outages became more common. Subsequently, when it became apparent that nuclear generation would not take over the sector, a number of companies went about what the industry termed "life extension programs", where major components costing tens of millions of dollars were replaced *in toto,* adding decades to the life expectancy of these units – and increasing annual emissions by thousands of tons per year. Rather than adding pollution controls as they refurbished and upgraded these old units with wholly new components – the analogy is replacing the engine in a car rather than the spark plugs and air filter - many in the sector simply got lazy and relied on an interpretation of the rules -- "the routine maintenance" exemption – promoted by several Washington-based law/lobbying firms. They did so even though there was clear precedent, commencing with EPA Administrator Reilly's interpretation under President George H.W. Bush Administration and the ensuing litigation in the WEPCO case, warning that the "routine maintenance" exemption was indeed limited to routine maintenance and not these large capital projects.

Power plants have an engineering useful life of 30-40 years, but their economic useful life may be longer. The vast majority of our coal-fired power plants were built before 1972 and so many are nearing at the end of their useful lives, unless they now undertake substantial, capital intensive, life extension programs. Ironically, the industry's unwillingness to comply with the modification rules (and EPA's inability or unwillingness to enforce them) - or retire - discouraged construction of new coal-fired power plants in the 1980-2010 time frame, when new coal-fired plants could have competed with natural gas fired units or renewables. Today's discussion draft is intended to largely, but not completely, reverse the 1988 WEPCO decision and allow these life extension programs to proceed, even where they increase annual emissions by thousands of tons per year. This would severely undermine earlier Congressional policy to gradually limit the competitive advantage that large polluters have over clean factories.

The NSR process is simply this -- you can modify your plant however you wish - without going through NSR permitting -- if you don't increase annual emissions by more than a nominal amount. There are many options for doing this -- one is to simply take an annual limitation on emissions that is only slightly above your highest emission rate in recent years. If the source operator wants make a modification that is going to increase emissions by 10 percent but does not want to constrain production, it can add some incremental pollution controls, such as low NOx burners or commit to use a slightly cleaner fuel such as natural gas or lower sulfur coal. Of course, the source also has the option to do the unthinkable and simply add modern controls as Congress intended. And so, while compliance, with some planning, is normally relatively modest, the consequence of a violation is not. Under the CAA, if a source makes a "major modification", "grandfathering" under the original legislative compromise is over and the source is treated as a new source. That means retrofitting with today's state of the art

controls. In the past, enforcing this obligation reduces SO2 and NOx emissions by millions of tons per year.

Maintaining the ability to enforce these obligations against the power sector is both good environmental policy and good economic policy. State and local air pollution control agencies need to find emission reductions to meet health based air quality standards, but utilities often can generate substantial political pressure in a state. Emission reductions from coal-fired EGUs are far, far cheaper than trying to get them from smaller businesses or individuals. And, unlike manufacturing, you can't "offshore" production of electricity. Approximately half of the existing coal-fired units do not have state of the art controls for SO_2 (FGD) and three-fourths of such units do not have the full suite of modern controls for oxides of nitrogen (NOx, SCR). There are a number of coal-fired power plants with extremely high emission rates that will effectively be exempted from these requirements per the discussion draft.

CONCERNS ABOUT SPECIFIC PROVISIONS IN THE DISCUSSION DRAFT

1. The addition of the word "actual" in the proposed revisions to sections 169(2) and 171(4) of the CAA.

The NSR program is a pre-construction program. Sources are currently expected to determine ***in advance of commencing construction of the project*** whether the project will need to undergo PSD review and install advanced pollution controls. Accordingly, the source and the permitting authority must each know (1) the baseline – *i.e.*, the emissions before the project and the post-project emissions and (2) the post-project emissions. At one point in time the post-project emissions were the "potential to emit"; *i.e.*, the maximum post-project emissions. For utilities, the WEPCO rule establishes a procedure for utilities that do not expect to run all of the time where, prior to commencement of the project the source would project future emissions. This test is known as the actual-to-projected-future-actual test and allows the utility to estimate

future emissions based, among other things, any increase in utilization that the project will allow. Some industry advocates have over the years pushed for a relaxation of this test so that NSR is only triggered if there is an actual increase in emissions in the first few years. This concept is unworkable for several reasons. A source can escape the obligation to install and thereafter operate pollution controls for decades thereafter merely by keeping emissions below the applicable threshold for a few years and thereafter increase emissions in an unlimited fashion. This, in itself is inconsistent with the notion of the modification rule being a rational way to gradually end grandfathering of poorly controlled plants.

This notion also reduces the ability of authorities to enforce the program and encourages gaming of the system. There is no way for regulators to contest, at the time of a project, a claim that actual emissions will not increase. Emission testing of sources is not conducted sufficiently frequently to allow authorities to know of an increase in emissions. I've recently reviewed the permitting file for a particular plant – prior to the entry of an EPA/DOJ consent decree a few years ago measurement of PM emissions from that plant had occurred only twice in 25 years – even though several large modifications had been undertaken. And since there would be no obligation to seek a permit at the time of the modification, authorities may not be able to tie an increase in emissions to a specific activity. Finally, Federal law in this area provides for a general five year statute of limitations for penalties for civil violations and several circuits have held that this limit applies to injunctive relief as well as civil penalties. In those circuits, if authorities do not bring an enforcement action within 5 years of when they "knew or should have known" of the violation, the source cannot be required to comply. Based on my experience as an enforcement manager, one cannot readily dismiss the possibility that some sources may file seemingly innocuous disclosures at random points in time to unsuspecting permitting authorities

to establish that the government "should have known" of the increase in emissions even though there has been no emission testing.

2. The proposed change in the baseline period for electric generating units.

In determining whether a contemplated project will increase annual emissions source operators and regulators need to have a common understanding of what the emissions of the plant were just before commencement of the project. Initially, this was determined by looking at emissions for the two years immediately prior to commencement of the project. Then, EPA adopted a test for utilities emissions during the highest two years in the last five years and subsequently, for other sources, the baseline period is the highest year in the last ten years. This latter decision was based on an argument that non-utilities needed a longer look back period because of swings in the business cycle. Now, the discussion draft proposed to extend this dubious option to utilities. There is no particular argument to support the notions of large decadanal swings in electric demand. Indeed, the data show a long, gradual decline in demand. Further, the rules provide that any increase in emissions that is associated solely with an increase in demand for the product (including electricity) that could have been accommodated before the project does not trigger the NSR obligation. The sole purpose of the proposed change in baseline is to allow for a greater increase in emissions ***occasioned by the project*** than would otherwise be allowed.

3. The proposed elimination of the annual emission increase test.

The elimination of the annual emission increase test will effectively shield old-coal fired power plants from most liability under the NSR rules and undercut the notion of a gradual phase out of old units. Here it should be noted that while, in today's market current coal-fired plants are highly challenged to remain competitive against natural gas-fired and renewable generation, they are also competing against other coal-fired plants for whatever market share is available to

coal generation. The proposed elimination of the annual increase test will continue to disadvantage well controlled coal-fired units in competition with poorly controlled plants for decades to come. Where power plants are regularly maintained, the annual increase test, which includes the demand growth exception discussed above, does not create a burden for utilities. But, when those plants are "shot" and are engaged in major capital investments to extend their useful life for decades, it is time for them to include modern controls in the program.

4. The proposed "output" based test.

The proposed "output" based test necessarily includes elimination of the annual increase test and for that reason should not be adopted. It is also unnecessary. If a project merely increases the efficiency of a unit, the annual "input-based" emission rate will go down just as the "output- based" emission rate declines. If a modification allows a plant to make the same amount of electricity while burning less coal, the SO_2, NOx and other pollutant emission rates will go down, not up. The discussion draft provides an option to increase the size of the unit (and associated hourly and annual emissions), recover lost utilization, and extend its useful life for decades, without adding modern controls as long as the output based emission rate ***for any pollutant*** declines. While it is not clear that the drafters intend that a minor decrease in, for example CO or CO_2 emissions per MWh, would allow unlimited increases in other pollutants, this appears to be allowed by the language of the discussion draft. Some advocates have in other settings put forth the "poster child" of one form of efficiency improvement – a particular design of turbine blade upgrade, where the major effect is to increase the power of the unit, along with an efficiency improvement, such that both hourly and annual emissions may increase. This particular design is not the only option for turbine upgrades, but those who want to employ it need only manage emissions by nominal upgrades to pollution controls or --- by fully controlling

their plants as initially intended by Congress. It should also be noted that in the utility enforcement actions some attempted to argue that simply putting in new economizers, boiler walls and other components of the original design would improve efficiency. On careful examination it was determined (and accepted by the courts) that this increase would only be true while those components were new and clean and that the benefit would decline after a relatively short period of operation.

5. The "intent to restore, maintain or improve the reliability or safety of the source" test.

For most sources subject to the NSR requirements an "intent of the operator" test is unenforceable. A refiner who adds 5 percent capacity may claim that the overall intent of the project was to improve reliability and safety, and the added capacity was incidental. Such a claim would be difficult, if not impossible, to determine objectively and certainly could not be ascertained without highly intrusive investigations. For utilities, the reason they engage in life extension programs is **to restore, maintain or improve the reliability or safety of the source.** And so, this provision, as most of the discussion draft, is not a clarification of the modification rule, but a straightforward elimination of those parts of the modification rule that are most likely to impact aged and poorly controlled coal-fired power plants.

6. The proposed safety valve for the proposed "reliability" test.

The discussion draft offers a proposed safety valve that would impose liability for a change that would otherwise be exempt because (1) it reduced the output-based emission rate of any air pollutant **or** (2) did not increase hourly emissions above the 10 year baseline *if the Administrator determines that such increase harmful to human health or the environment and that the change is not environmentally beneficial.* I cannot see how this provision would be of any significant practical utility. As drafted, the safety-valve provision refers to "such increase"

and does not directly refer to the output-based exemption. More importantly, this provision would seem to be unenforceable since a source would not know that its modification was subject to the NSR provision until after the "violation" had occurred. Further, the language of the safety valve – "harmful to human health or the environment" **AND** (not or) "that the change is not environmentally beneficial" is extremely vague, leaving the ultimate test for this retroactive liability in the Administrator's unfettered discretion. Note that the source would be exempt even though the Administrator determined that the modification is "not environmentally beneficial", as long as the Administrator did not also determine that the modification is "harmful to human health and the environment." One can imagine a scenario where, in some Administrations, all such changes would be exempt, while in another, no changes would be exempt.

7. The "savings provision" to ensure that there is no benefit to the environment from the discussion draft.

To ensure that there are only "winners" and no "losers" within the regulated community, the discussion draft provides a "rule of construction" that provides that the discussion draft does not accidentally create any additional liability for modifications. Thus, there can be no suggestion that, in "clarifying" the modification rule, the environmental benefits of the existing Clean Air Act are preserved.

RESPONSE TO CERTAIN COMMENTS RAISED DURING THE FEBRUARY 14, 2018 HEARING

1. The NSR program makes it difficult to maintain the reliability and safety of their facilities.

The NSR process has never been intended or enforced so as to interfere with true "routine maintenance" or with the ability of a facility to respond to increases in demand for its product that could have been accommodated without the modification. As expressed earlier an operator can modify its plant however it wishes, if it pays modest attention to the actual rules and avoids

risky legal theories. Most manufacturing sectors maintain high unit availability on a constant basis, and so, as a practical matter, compliance for these sources is simply a matter of not increasing capacity – or offsetting emissions elsewhere at your facility if you decide to increase the capacity (and associated emissions) of an individual unit. For a power plant, liability generally only arises if the operator **fails** to maintain the reliability of the unit over time. In either case, if the source operator wants make a modification that is going to increase emissions by 10 percent without constraining production, it can add some incremental pollution controls, such as low NOx burners or commit to use a slightly cleaner fuel such as natural gas or lower sulfur coal.

2. Only short term emission rates matter. $PM_{2.5}$ is the pollutant that creates the greatest public health risk and the greatest impacts from $PM_{2.5}$ are associated with *chronic, long term exposure* to $PM_{2.5}$. This pollutant is generated by direct emissions of very fine particulate matter and from secondary atmospheric reaction of SO_2 and NOx emissions. We do not even aspire to meet levels for *annual* $PM_{2.5}$ recommended by the World Health Organization and much of the population of this country lives in areas that do not meet the *annual* $PM_{2.5}$ standard that we have adopted.

3. "Most of the things" required under NSR enforcement consent decrees are things the companies are required to do under other CAA programs anyway.

I was in the negotiating room for many of the NSR consent decrees and can affirm that this is simply not correct. However, if it were true, there would then be no basis for the myriad other complaints lodged against the NSR program. If these companies were going to "put on these controls anyway" why didn't they just sign up to put on the controls when they were rebuilding their units and avoid all of the expense and irritation of litigation? And what would be the harm of continuing the program as it is?

Where there are upcoming regulatory programs that will require power plants to add pollution controls at the same time NSR enforcement proceedings are underway (often years after the modification), there may be some overlap, but this is not a bad outcome and, in fact, is routinely relied upon by the EPA air program office in developing and evaluating new programs. For example, in evaluating the potential cost for the Mercury and Air Toxics rule (MATS), the air program office included the NSR consent decrees in the "base case", thereby reducing the projected cost of that rule. Compliance with the MATS rule at certain plants was also facilitated by other EPA rules, including NSPS standards, dating back to 1979.

The NSR Consent Decrees are generally more stringent than the MATS rule and so, complying with the Decrees enabled those sources to meet the MATS rule with only minimal additional expenditures. However, those same sources could have complied with the MATS rule with far less protective measures than required by the NSR Consent Decrees.

Further, there are going to be periods where ongoing enforcement activities are not accompanied with new environmental regulation and there have been numerous NSR enforcement actions in other sectors where there were no upcoming additional regulations. Finally, I would note that the NSR consent decrees include provisions, often included at the request of the air program, that advance the overall objectives of that program. These include the adoption, for the first time in a given sector, of advanced pollution control technologies such as regenerative thermal oxidation (RTO) in the wood products sector, SCR and PM CEMs in the utility sector and advances in controls for fluidized catalytic cracking units (FCCU) and boilers and heaters in the refinery sector. These requirements were strongly opposed by settling companies, but paved the way for the air program office to incorporate these advances more broadly in subsequent rulemakings. It should also be noted that the NSR Consent Decrees

include provisions for surrender of allowances under the Acid Rain trading program so that, contrary to what had been represented to the Committee, the emission reductions from the NSR Consent Decrees do not ”pop up” as additional allowable emissions from other facilities.

4. Over the past 15 years EPA enforcement officials have tried to expand the definition of modification.

There were no novel theories involved in the wood products and refinery NSR enforcement actions. These were straightforward matters. In the wood products cases new green field plants were constructed without permits or modern controls. In the refinery cases the capacity, hourly emissions and annual emissions of the plants increased and there were no issues of “routine maintenance.” At the time of our initial filing of the early utility NSR cases, we asked ourselves whether we needed to file a test case in advance of the first wave of cases and decided that we would rely on the earlier WEPCO decision. I’ve not reviewed the briefs filed by DOJ over time, but I have had occasion recently to review one of the more recent judicial decisions concerning the “routine maintenance issue.” In that decision the government made a slightly different argument than I recalled, but the Court relied on the WEPCO decision and the early decisions in our initiative that also relied on WEPCO. And so, irrespective of how DOJ or EPA may have attempted to argue the particular point the law as applied to utilities is as it was 15 years ago.

5. Companies are unable to determine whether a proposed modification will increase annual emissions.

I find this argument perhaps the least credible of any presented by the opponents of the NSR program. In the course of our investigations, we obtained the procurement documents where plant managers justified the expense of the proposed modifications. In those documents company officials set out data showing how many operating hours (and how much revenue) was being lost due to forced outages of specific components of the plant. They then forecast the

degree to which those forced outages would be reduced and the additional operating hours (and revenue) that would be realized by the proposed project. Such projects would only be approved where the increased revenues associated with the increased annual hours of operation were sufficient to pay for the investment in a relatively short period of time. Since we and they know the hourly emission rate of the unit, those internal company projections formed the basis of our proof of the violations and document that companies can and do know whether a project will increase annual emissions.

6. The NSR program is the least successful and most counterproductive of all the Clean Air Act programs. The benefits achieved by the NSR program can be preserved by relying on more effective CAA programs that regulate the same pollutants from the same facilities.

The NSR program has clearly not achieved the goal of leveling the playing field between "new" and "grandfathered" large sources over any reasonable timeframe. But that is an argument to strengthen, not weaken, the program. NSR permitting has replaced the NSPS program as the driver for better controls for new facilities; the latter program serves only as the "floor" for NSR limits for new sources. Through NSR and, in particular NSR enforcement at violating facilities new technologies, such as SCR, RTO and PM CEMS have been introduced into the toolbox for state and local permitting authorities. I know of no CAA program that regulates all of the same pollutants from the same facilities as are subject to the current NSR rules.

Within my community the lead phase-down program – an old "command and control" program is widely regarded as the most successful CAA program. While we have made substantial progress in reducing ambient concentrations of certain pollutants, we still have significant issues in several areas – notably $PM_{2.5}$ and ozone. After modest reductions for several decades, ozone levels are essentially unchanged over the past decade.

One can offer critiques of many of the other CAA programs. The SIP process has proven to be exceedingly slow, ineffective and politically charged; NSPS standards are woefully out of date; MACT standards are generally toothless, designed not to force all facilities to actually meet the level of the top 12 percent, but merely to force some reduction from the worst emitters, the Acid Rain Program was a one-shot effort that did not completely address the acid deposition issue, particularly in the Appalachian region and so on. But each of these programs moved the ball forward, so too, the NSR program is flawed as it is so easily evaded. Fifteen years ago I suggested a "birthday" provision, where a plant operator would have to make a decision as to whether to retire or control a facility on its 50th anniversary (or the 50th anniversary of the Clean Air Act). I suggest that one appropriate "reform" for the NSR modification rule is to create such an age test – a date by which certain very large emitters (similar to the EU's group of large combustion plants) must meet some level of additional control for key pollutants. Such an option would provide greater certainty to facility operators and provide a clearer path to eliminating one barrier to investments in new manufacturing facilities in this country.

BACKGROUND AND QUALIFICATIONS

I received a B.S. (Physics) from Manhattan College in 1969, a M.S. (Physics) from the College of William and Mary in 1971 and a J.D. (Law) from the College of William and Mary in 1974. From 1971 to 1974 I was employed at the Naval Logistics Engineering Center where, along with other engineering and testing matters, I researched seaborne solid waste disposal issues and potential solutions for the U.S. Navy. From 1974 until my retirement in 2003, I was employed by the Federal government in the administration or enforcement of Federal laws relating to the environment and safety. This service began in the Office of Chief Counsel with the National Highway Traffic Safety Administration (NHTSA), where I was responsible for a time with ensuring the agency's compliance with environmental matters and later investigated and prosecuted a number of substantial safety defect matters

In 1984 I transferred to the Environmental Enforcement Section of the Department of Justice (DOJ) and served in several positions, culminating as Senior Counsel. While at the DOJ, I served as lead counsel in a number of significant environmental cases, including Conservation Chemical (CERCLA), Marine Shale Processors (RCRA, CWA, CAA); Metro-Denver, St. Louis MSD and the Ocean Dumping cases (CWA) and the Louisiana- Pacific, General Motors, Bethlehem Steel and Kobe Steel cases (CAA). During this period I prosecuted a number of violations of the New Source Review provisions of the CAA and specialized in other highly technical cases, such as the GM "defeat device" matter. From August, 1996 to December, 2003, I was Deputy Director and then Director of the Air Enforcement Division in EPA's Office of Enforcement and Compliance Assurance. The Air Enforcement Division is comprised of a mix of attorneys, engineers and scientists and is responsible for major case development and prosecution as well as policy development and national program management respecting stationary sources regulated under the CAA. The Division is also directly responsible for mobile source and clean fuels enforcement under the CAA.

During my tenure at DOJ and EPA, I worked closely with the EPA Office of General Counsel, the EPA program offices responsible for developing regulations to implement the several regulatory programs of the Clean Air Act and with the Regional EPA offices responsible for day-to-day State Implementation Plan[1] (SIP) approval and enforcement activities. Based on information developed during serial investigations of PSD/NSR violations within the wood products industry that occurred while I was at DOJ, I instituted what we termed "investigations-based" enforcement at EPA, focused on environmentally significant violations to supplement the traditional "inspection-based" enforcement model. Investigations using this new approach were more technical and far more time-consuming than traditional inspections, but revealed widespread noncompliance with the NSR provisions of the CAA within the coal-fired utility, refining and pulp and paper sectors. Since the unlawful emissions and political issues associated with the PSD/NSR violations within the utility sector were so significant, I was directed by my superiors to personally manage the national investigations in the utility sector. Accordingly, I managed the development of the initial round of cases referred to DOJ for prosecution and the development of the EPA administrative action against the Tennessee Valley Authority (TVA). I

also managed EPA's involvement in settlement discussions[1] with a number of utilities, including Tampa Electric Company (TECO), Southern Indiana Gas and Electric Company (SIGECO), Virginia Electric Power Company (Dominion), Duke Power, Southern Company, TVA, and PSEG aimed at resolving these longstanding violations and personally attended many of those discussions. These discussions included issues respecting feasibility of construction schedules, potential performance of pollution control devices and cash flow and affordability issues.

Since my retirement from Federal service, I have occasionally been retained by business, states and environmental groups to provide advice, analysis or testimony on a variety of environmental matters. As relevant to this matter, I was retained by the National Association of Clean Air Administrators (NACAA), the professional association of state and local air regulators) to develop a model rule to assist state and local permitting authorities to develop "case-by-case" MACT limits for industrial, commercial and institutional boilers (ICI Boilers).[2] I have also been retained to review and develop comments on EPA's several rulemakings associated with development of the Mercury and Air Toxics Standards that are relevant to this matter. This effort included a detailed evaluation of EPA's MACT floor determinations, compliance demonstration procedures and overall regulatory structure and impact. I have also been retained by various clients to evaluate energy and energy policy issues, particularly those involving the development and control of new and existing coal-fired power plants in the European Union, Kosovo, Armenia, Myanmar, Viet Nam, Indonesia, India and Japan.

From 2006 to 2010, I served on the Virginia Air Pollution Control Board ("VAPCB"). The VAPCB is a statutory non-salaried citizen board that has the authority to conduct research into the causes and effects of air pollution, adopt regulations to prevent or control air pollution, and issue permits and enforcement orders to implement and enforce air pollution regulations and the Virginia air pollution control law. During this time a permit to construct what is today one of the last coal-fired power plants in the U.S. came before the VAPCB. I researched applicable BACT and case-by-case MACT requirements, leading the Board to adopt stringent, but

[1] Not all of these discussions led to settlements prior to my retirement.

[2] Where EPA fails to meet a statutory deadline for issuance of a National Emission Standard for Hazardous Air Pollutants (NESHAP) pursuant to section 112 of the CAA for a sector, states are required to develop limits for covered sources on a case-by-case basis. The model rule set out relevant statutory guidance and data that allowed states to meet this obligation.

achievable SO_2 and mercury emission limits[3] for that plant.

Thank you for the opportunity to appear before the Subcommittee. I hope my testimony will be helpful to you as you review the New Source Review program and decide whether Congress should take action to modify it. Please do not hesitate to have your staff contact me if you need additional information.

[3] The operator has consistently demonstrated compliance with the more stringent limits.

SUMMARY OF TESTIMONY OF BRUCE C. BUCKHEIT

In my judgment the discussion draft before the Committee today is not in the public interest and should not be adopted. The draft is not needed by the regulated community and would not advance one of the fundamental purposes of the Clean Air Act – to eliminate, over time, the disparate treatment of new and existing sources. It would severely impair the ability of the modification provisions of the Act to effect this purpose and would exacerbate the current barrier to investment in new manufacturing and electric generating facilities created by the difference in the treatment of new and existing facilities. Several of the provisions in the discussion draft pose significant policy issues and enforcement concerns, including (1) the addition of the word "actual" in the proposed revisions to sections 169(2) and 171(4) of the CAA; (2) the change in the baseline period for electric generating units; (3) the elimination of the annual increase test; (4) the "output" based test; (5) the "intent to restore, maintain or improve the reliability or safety of the source" test; (6) the safety valve for the "reliability" test and (7) the "savings provision" to ensure that there is no benefit to the environment from the draft.

I disagree with criticisms leveled at the NSR program during the February 14, 2018, hearing that (1) the NSR program makes it difficult to maintain the reliability and safety of facilities; (2) only short term emission rates matter; (3) "most of the things" required under NSR consent decrees are things companies are required to do under other CAA programs anyway; (4) over the past 15 years EPA enforcement officials have tried to expand the definition of modification; (5) companies are unable to determine whether a proposed modification will increase annual emissions and (6) that the NSR program, especially as it relates to modified facilities, is counterproductive and far less efficient than other available CAA options.