



**American  
Forest & Paper  
Association**

May 10, 2012

Holly Stallworth, Ph.D.  
Economist and Designated Federal Officer  
Clean Air Scientific Advisory Committee (CASAC)  
Environmental Protection Agency, Mail Code 1400R  
1300 Pennsylvania Ave., NW, Washington D.C. 20004

**Re: Supplemental Information for the EPA Science Advisory Board  
Environmental Economics Advisory Committee (Committee)**

Dear Dr. Stallworth:

The American Forest & Paper Association (AF&PA) appreciates the opportunity to submit this supplemental information to the Committee as it continues its consideration of the National Center for Environmental Economic (NCEE) Report entitled “Retrospective Study of the Costs of EPA Regulations: An Interim Report of Five Case Studies.” The information pertains to the Committee’s discussion of the industry cost of compliance with the water portion of the Cluster Rule.

**INTRODUCTION**

During the Committee’s first day of deliberations on the Report there was considerable discussion about whether it was appropriate to count certain costs incurred by the industry before the rule was promulgated as compliance costs. This memorandum is to provide the Committee with additional information on those costs.

**DISCUSSION**

The issue centers around the fact that the Detailed NCASI Report (DNR)<sup>1</sup> submitted a week before the meeting indicates that the industry incurred considerable capital costs well before the compliance date of April 2001, indeed well before the rule was proposed on December 17, 1993. In total, between 1987 and 2000 inclusive, the DNR indicates that the industry incurred \$3.8 billion of capital costs.

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<sup>1</sup> Retrospective Analysis of Actual Capital Expenditures and Compliance Cost Estimates for EPA’s Effluent Limitations Guidelines Portion of the 1998 Cluster Rule, June 2011.

The Committee extensively discussed the large amount of costs incurred from 1987 to 1993, represented by the first “hump” in the graph included with the Oral Remarks of Paul Wiegand from NCASI submitted the day before the meeting (“Wiegand Remarks”).<sup>2</sup> Some Committee members posited that those costs could have been “voluntary” and should not count towards the total. Another indicated that while perhaps “voluntary” they were still costs and their incurrence lowered future costs, and thus, should be counted. Concern was expressed about how to distinguish costs that were incurred for other reasons (e.g., customer concerns) v. costs of compliance.

As discussed during the meeting, there are good reasons to assign these early costs (1987-1993) to Cluster Rule compliance. AF&PA and industry members had been in extensive conversations with EPA before the agency executed the consent decree in 1988 obligating it to engage in a rulemaking. Further, as indicated on slide 26 of the NCEE presentation provided for the meeting, through those capital expenditures, by 1990 the industry had already made significant progress in reducing or virtually eliminating dioxin in its products. This was accomplished through the increased use of chlorine dioxide (ClO<sub>2</sub>) instead of chlorine. As discussed, complete substitution of ClO<sub>2</sub> was the technology basis ultimately selected by EPA in the final Cluster Rule.

The Committee discussed whether expenditures occurring prior to formal promulgation of a final rule may have been motivated by other reasons and should be considered “voluntary” and not included in the costs of compliance with the rule. While that may be an issue in other cases, the discussion above and other points in the material provided make a strong case that the 1987-1993 costs represented by the “hump” in the “Wiegand Remarks” should be assigned to Cluster Rule compliance. However, since those 1987-1993 costs were not part of either EPA’s or industry’s *ex-ante* analysis, and since the goal of this study is to examine the reasons why *ex ante* projections may vary from *ex post* cost compilations, the issue does not need to be resolved to achieve the goal of this study and those costs will not be discussed further.

As stated, the goal of the NCEE and SAB effort is to determine the causes of variance between EPA’s *ex ante* and *ex post* analyses of particular rulemakings in order to improve those *ex ante* projections in the future. In this case, the relevant time period for the *ex ante* analysis is either 1995-2000 (EPA’s analysis issued in 1997 for the final rule looking at equipment “in place” in mid-1995) or 1993-2000 (industry’s analysis issued in 1994 by NCASI for the “AF&PA alternative” looking at equipment “in place” January 1993). As indicated in the DNR,<sup>3</sup> both analyses share a similar technology basis and are readily compared. EPA projected costs of \$1,079 million for its chosen time frame. Industry projected costs of \$1,875 million for its chosen time frame. These different cost projections are the appropriate focus of the NCEE and SAB analysis because these are the *ex ante* projections that are most readily compared to the *ex post* costs incurred to determine if the projections over or under estimated actual costs.

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<sup>2</sup> Oral Remarks by Paul Wiegand, of NCASI before the EPA Science Advisory Board; Environmental Economics Advisory Committee; April 19, 2012 Public Teleconference.

<sup>3</sup> DNR Page 4.

While as discussed above a strong case can be made that industry costs incurred starting in 1987 should be counted toward Cluster Rule compliance, it is even more clear that costs incurred starting in January 1993 should be counted. At that time it had been about 5 years since EPA had executed a consent decree requiring it to propose a rule by October 1993<sup>4</sup>. EPA and the industry had been undertaking extensive analyses during those years typical of a complicated rulemaking. Policy and technical level conversations between the agency and industry were occurring frequently. The AF&PA alternative on which the industry cost estimate was based and which was implemented by industry was already achieving the desired result as indicated on slide 26 of the NCEE presentation showing significant progress in reducing or eliminating dioxin by 1990 using the ClO<sub>2</sub> technology. Finally, that technology ultimately became the technology basis for the final rule.

The RTI Report Whitepaper prepared for EPA<sup>5</sup> provides good documentation that costs incurred between 1993 and 1995 should be included:

“After proposal of BAT and PSES in 1993, six corporations announced plans to install new technologies that would achieve BAT and PSES at their facilities. The announced plans involved a total of 24 mills. The process changes were implemented at 12 of these mills by mid-1995; for these mills, EPA excluded the costs of these technology improvements from its analysis of the economic achievability of this rule (U.S. EPA, 1997c). Process changes at the other 12 mills were not underway as of July 1, 1995. The costs anticipated for these 12 mills were included in EPA's economic achievability analysis (U.S. EPA, 1997c). EPA also noted, however, that including these announced corporate plans did not change the results of its analysis.”

Table ES-1 of the DNR depicts the costs and time frames forming the basis for the EPA and industry *ex ante* analyses as compared to the final costs incurred, and is reproduced here for the reader's convenience. The comparison shows that for the timeframes at issue for *ex ante* and *ex post* estimates, EPA's *ex ante* projection underestimated the costs by \$366 million (34%), while industry underestimated by \$20 million (1%)<sup>6</sup>. Note that as indicated in the footnote to the Table, these timeframes and costs do not include the costs incurred in the earlier years (1987-1993) that some believe may have been “voluntary” and should not be counted. If those costs are included, the industry capital expenditures total \$3,835 million.

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<sup>4</sup> While the proposed rule actually appeared in the Federal Register on December 17, 1993, it was signed months earlier in October in compliance with the consent decree. It is not unusual for several months to elapse between signature and publication in the Federal Register for long and complicated documents.

<sup>5</sup> “Final White Paper” from Rebecca Nicholson, Tom Holloway, and Corey Gooden to Anna Belova, Abt Associates dated February 28, 2012, page 18.

**Table ES-1.** Comparison of Estimated ELG Compliance Costs and Actual Capital Expenditures  
(2002 dollars)

<b>Organization that Estimated Compliance Costs</b>	<b>Timeframe for Organization's Estimated Compliance Costs</b>	<b>Organization's Prospective Estimated Compliance Costs \$million</b>	<b>Actual Capital Expenditures* for Compliance, \$million</b>	<b>Difference Between Actual Capital Expenditures and Estimated Compliance Costs \$million (%)</b>
EPA	1995-2000	\$1,079	\$1,445	\$366 (34%)
Industry	1993-2000	\$1,875	\$1,895	\$20 (1%)

\*Table ES-1 does not include all industry capital expenditures for Cluster Rule ELG compliance. Expenditures incurred in a time period earlier than that covered in the table are not included because neither EPA nor industry provided prospective estimates for those expenditures. When those expenditures are included, the industry capital expenditures total \$3,835 million.

## **CONCLUSION**

The Committee and NCEE discussed in detail costs incurred in 1987-1993 and whether those costs are properly attributable to industry Cluster Rule compliance. Those costs represent a significant expenditure of industry resources for compliance, but for the purposes of the task before the Committee they can be set aside.

The industry *ex ante* projection includes costs incurred starting with the year of the proposed rule (1993). The EPA *ex ante* projection begins two years later. In 1988, EPA committed to a rulemaking beginning in 1993. During those years, there were extensive studies done by EPA and industry about potential technology bases for compliance. Real world experience was demonstrating that the same technology for which costs were expended in 1993 to 1995 (and earlier) had already significantly reduced or virtually eliminated dioxin in other mills. Information provided by EPA's contractor's documents industry announcements to begin taking steps toward compliance during that timeframe, and other companies were incurring similar costs during this period. The costs incurred following these announcements and the other industry costs incurred between 1993 and 1995 for compliance were not included in EPA's *ex ante* projection. While there may be debate in other cases as to the appropriateness of including costs incurred after a proposed rule but before a final rule, that should not be of concern in this case in light of the circumstances discussed in this paper and the supporting documents. Not including these costs accounts for most of the difference between the EPA and industry *ex ante* projections and explains why EPA's *ex ante* projections underestimated costs by 34%, in contrast to industry's *ex ante* projections which under estimated by only 1%.

We appreciate your consideration of this information. If you have any questions, please contact me at (202) 463-2700 or at [jerry\\_schwartz@afandpa.org](mailto:jerry_schwartz@afandpa.org).

Sincerely,

/s/

Jerry Schwartz  
Senior Director, Energy and Environmental Policy  
American Forest & Paper Association