



PPG Industries, Inc. 3333 South Peach Avenue Fresno, California 93725

**Ray C. Yee**  
**Plant Manager**

August 11, 2011

Clerk of the Board  
California Air Resources Board  
1001 "I" Street  
Sacramento, CA 95814

Re: Comments on July 25, 2011 Modified Text of Cap-and-Trade Proposal

Dear Members and Staff of the Air Resources Board:

PPG Industries, Inc. (PPG) is pleased to provide you with comments regarding the July 25, 2011 modifications to the text of the proposed cap-and-trade regulation for greenhouse gas (GHG) emissions in California. PPG is a multinational company that manufactures flat and fiberglass products, industrial and specialty chemicals, and architectural, aerospace and automotive paints and coatings at facilities in 24 countries around the world. PPG manufactures flat glass products at a float glass facility in Fresno, California, which would be covered by the proposed cap-and-trade regulations.

PPG's comments on the proposed regulations are focused on six issues, as follows:

1. Revisions needed to the proposed product output-based formula for direct allocation of GHG allowances to account for periods when a flat glass furnace is operating but not producing glass or is being rebuilt.
2. Revisions needed to the cap adjustment factor for the glass industry to account for the inability to modify raw material usage to achieve reductions in CO<sub>2</sub>E process emissions.
3. Revisions needed to the product output emissions efficiency benchmark for the flat glass industry to reflect operating conditions in the industry as a whole, not just in California.
4. Revisions needed to clarify the purpose and function of the true-up portion of the product output-based formula for direct allocation of GHG allowances.

5. Support for the assistance factor for disposition of GHG allowances to the flat glass industry.
6. Suggestions for revision of certain limitations on disclosure, registration, allowance purchases at auction and allowance holdings.

#### Revisions Needed to the Proposed Product Output-Based Formula for the Glass Industry

Unlike most other manufacturing facilities, flat glass furnaces must operate continuously, even when no glass is being produced. The Glass Association of North America (GANA) has submitted comments on the proposed modifications to the text of the cap-and-trade regulation, which include a detailed description of the nature and duration of “hot holds” and furnace rebuilds, so we will not repeat that description here. Suffice to say that, in any given compliance period, it is possible that a flat glass furnace may have a significant, unavoidable gap in glass production due to a “hot hold” or a furnace rebuild. Moreover, in the case of a “hot hold,” the lack of production will be accompanied by significant CO<sub>2</sub>E emissions from the fuel combustion needed to maintain enough heat in the furnace to preserve its structural integrity. In a furnace rebuild scenario, the furnace cool-down period prior to the rebuild and the start-up afterward will also result in CO<sub>2</sub>E emissions without corresponding glass production.

Thus, while PPG supports the proposed product output-based formula for direct allocation of GHG allowances to the glass industry in Section 95891(b), that formula must include some adjustment mechanism to avoid the substantial adverse impacts which would otherwise result from the exclusive use of a product output-based formula for years when significant gaps in production occur due to “hot holds” or furnace rebuilds. Those adverse impacts would be magnified by the fact that the year for which the allowances are allocated would not be the same as the base year used in the allocation calculation, leading to the possibility – even probability – that an allocation of allowances calculated using a base year with gaps in production would not be sufficient to cover the compliance obligation for the later, full-production year for which the allowances are allocated.

To resolve this issue, an additional formula for “hot hold” and furnace rebuild periods must be used to supplement the product output-based allocation formula. PPG endorses the resolution proposed by GANA in its August 11, 2011 comments to CARB – namely the substitution of a fuel benchmark from the energy-based allocation formula in Section 95891(c), multiplied by the quantity of fuel actually combusted in the furnace during any “hot hold” period or furnace rebuild, instead of the product output-based formula for that period. The allowances resulting from that fuel-based formula for non-production periods would then be added to the allowances resulting from the application of the product output-based formula to the remainder of the year when glass was being produced.

PPG recognizes that this approach may complicate the equation for allocation of GHG allowances when the base year used in the equation includes a “hot hold” or furnace rebuild. However, some accommodation must be provided in Section 95891(b) to avoid the artificial reduction in allowances that would otherwise result from the exclusive use of a product output-based approach when there are significant, unavoidable gaps in glass production in the base year for the calculation. To leave the provision as currently proposed would ignore the realities of flat glass production and would impose an unfair and unworkable compliance burden on the flat glass industry.

#### Revisions Needed to the Cap Adjustment Factor for the Flat Glass Industry

PPG endorses, and hereby adopts as if set forth in full, the comments of GANA regarding the need to revise the cap adjustment factor for the flat glass industry in Table 9-2 of the proposed regulation (*see* section entitled “Cap Adjustment Factor Table 9-2 § 95891” in GANA letter to CARB, dated August 11, 2011). Under the harmonization of the MRR rule with federal GHG reporting requirements, process emissions from glass production (*i.e.*, CO<sub>2</sub>E emissions resulting from carbon in the raw materials used to make glass) will be included in a glass production facility’s total reported CO<sub>2</sub>E emissions. However, the raw materials for glassmaking are not amenable to substitutions, so the portion of total CO<sub>2</sub>E emissions attributable to process emissions likewise will not be amenable to reduction under the annually declining cap. Other than the use of more cullet – which is a very limited option for the *flat* glass industry, with correspondingly limited impact on the carbon content of or emissions from the raw material batch – there are no CO<sub>2</sub>E emission-related efficiencies that can be achieved with respect to the raw materials used in making glass. Thus, compliance with the annually declining GHG cap must be achieved almost solely by reducing combustion-related CO<sub>2</sub>E emissions. To subject the flat glass industry to the same declining cap that applies to other industries with more flexibility to reduce CO<sub>2</sub>E process emissions would be an unfair burden. PPG fully supports GANA’s proposed modifications to the cap adjustment factor for the flat glass industry, and urges the Board to adopt the revised cap adjustment factors set forth in Table 1 in GANA’s August 11, 2011 comment letter.

#### Recalculation of the Product Output-Based Benchmark for the Flat Glass Industry

PPG endorses, and hereby adopts as if set forth in full, the comments of GANA regarding the product output-based emissions efficiency benchmark for the flat glass industry (*see* section entitled “Flat Glass Industry Benchmark” in GANA letter to CARB, dated August 11, 2011). CARB has recognized the vulnerability of the flat glass industry to emissions leakage, and the use of an artificially low benchmark for the industry will only serve to increase compliance costs, which will in turn promote rather than prevent such leakage. The proposed benchmark in Table 9-1 of the regulation was based on a non-representative cross-section of the flat glass industry, namely three plants in California.

There are many more flat glass plants operating in the United States, with which the three California plants must compete. To ensure the continued competitiveness of the California plants and to avoid emissions leakage, it is important that the data source for the benchmark be representative of the domestic flat glass industry as a whole. The use of a broad-based benchmark will be even more important if and when CARB links its GHG emissions trading system with others across the country. PPG endorses GANA's proposal for a revised benchmark of 0.5 metric tons of CO<sub>2</sub>E per short ton of flat glass pulled.

#### Clarification Needed on the True-Up Portion of the Product Output-Based Calculation

PPG has reviewed the proposed product output-based calculation in Section 95891(b) and the related commentary in the equation notes and the section of the July 25, 2011 Notice of Public Availability regarding Section 95891. In the equation notes, the purpose of the true-up factor ("Oa,trueup") is explained as a factor used to "adjust[] for any output not properly accounted for in prior years' allocations." In the Notice of Public Availability, the true-up factor is explained as an addition to the equation "to ensure that the amount of allocation received for a given year is corrected to actual production for that year." However, the true-up factor, as proposed, does not have anything to do with correcting a previous over- or under-allocation due to improper, erroneous or corrected production numbers for a previous year.

Despite the stated purpose of the true-up portion of the equation, it appears that its actual function is a modified version of the previously proposed production-averaging concept, in which the three-year averaging period is reduced to two years (*i.e.*, t-4 and t-2). If the intent, as stated in the Notice, is "to change the timing of output data to respond to stakeholder concerns about prolonged exposure to recessionary output levels," PPG does not believe that the addition of the proposed true-up factor to the product output-based equation achieves the goal. In fact, it preserves the averaging function and the "prolonged exposure to recessionary output levels" because, for any period where production is growing year-over-year, the true-up portion of the equation (in which t-2 production is subtracted from t-4 production) results in a significant *reduction* in allocated allowances for the current budget year due to the lower production in the earlier year (*i.e.*, t-4). Conversely, when production has decreased year-over-year, it appears that the number of allowances allocated will increase for the current budget year due to higher production in the earlier year.

PPG understands the need to ensure that product output-based allocations are based on accurate production numbers. Thus, the application of the true-up portion of the equation to reported changes in or corrections to previously reported annual production numbers would be appropriate. But an across-the-board application of the true-up portion of the equation to all sources every year will only serve to "prolong[] exposure to recessionary output levels," which the factor is ostensibly intended to avoid. PPG recommends that

the true-up portion of the equation be deleted and presented separately as an equation to be applied in the allocation process only in the event that a covered facility has submitted a correction to a prior year's reported production. Under that approach, any previous over-allocation or under-allocation of allowances to a facility in a prior year could be corrected, without any impact on other facilities in the cap-and-trade program.

Assistance Factor for the Flat Glass Industry

PPG supports CARB's decision to protect flat glass manufacturing facilities in California by providing a 100% assistance factor in the disposition of annual GHG allowances to the industry (proposed Table 8-1). PPG believes that this decision will help to avoid emissions leakage and the lost production and lost employment that likely would otherwise occur in the flat glass industry in California in the absence of that level of assistance.

Limitations on Reporting, Registration, and Allowance Purchases and Holdings

In general, PPG believes that several of the limitations in the proposed modifications to the cap-and-trade regulation are unnecessarily restrictive. For example, the time limits on certain disclosure and registration requirements in Sections 95830(f) and 95834(b) are unnecessarily short. It should be sufficient that such information be updated by the deadline for the reporting or registration event for which the information is needed.

Similarly, the percentage limitation on purchase of GHG allowances at auction in Sections 95911(c) and 95914(e) and the holding limit in Section 95920(f) and (g) may prove to be too restrictive if and when CARB's ETS links to other GHG emission trading systems around the country. If CARB believes that such limits are necessary at this stage in the cap-and-trade program, PPG urges the Board to consider revising and expanding the purchase and holding limits in the future if and when the program is linked to other emission trading systems.

PPG appreciates this opportunity to submit these comments on the proposed July 25, 2011 modifications to the GHG cap-and-trade regulation.

Sincerely,



Ray C. Yee  
Plant Manager  
PPG Works #15, Fresno