



**CDM: Recommendation Form for Small Scale Methodologies (version 01)**  
*(To be used for presenting questions/proposals/amendments to the simplified methodologies for small-scale CDM project activity categories)*

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| <i>Date of SSC WG meeting:</i>   | 11–14 January 2011, SSC WG 29  |
| <i>Title/Subject (give a small title or specify the subject of your submission, maximum 200 characters):</i>   | Clarification on the applicability of AMS-II.D for project activities involving changes in raw material and production process in an automotive painting plant |
| <i>Indicative methodology to which your submission relates (refer the items of Appendix B of the Simplified Modalities and Procedures), if applicable.</i> | AMS-II.D<br>“Energy efficiency and fuel switching measures for industrial facilities”  |
| <i>Name of the authors of the query:</i>   | Flavia Rocha Santos<br>Institution: MGM Innova on behalf of PPG Industries<br><a href="mailto:fsantos@mgminnova.com">fsantos@mgminnova.com</a>                 |

**Summary of the query:**

Please use the space below to summarize the query related to SSC methodologies/categories SSC Modalities and Procedures provide recommendation/analysis of the SSC WG.

Original text from PP:

PPG’s new paint (B1:B2) enables the use of a compact painting process, which compared to the traditional painting process, eliminates the prime booth, the prime oven, the prime strip out, and the prime sand. The elimination of these steps results in reduced natural gas combustion and reduced electricity consumption and therefore reduced greenhouse gas emissions.

**Baseline Scenario (traditional process):**

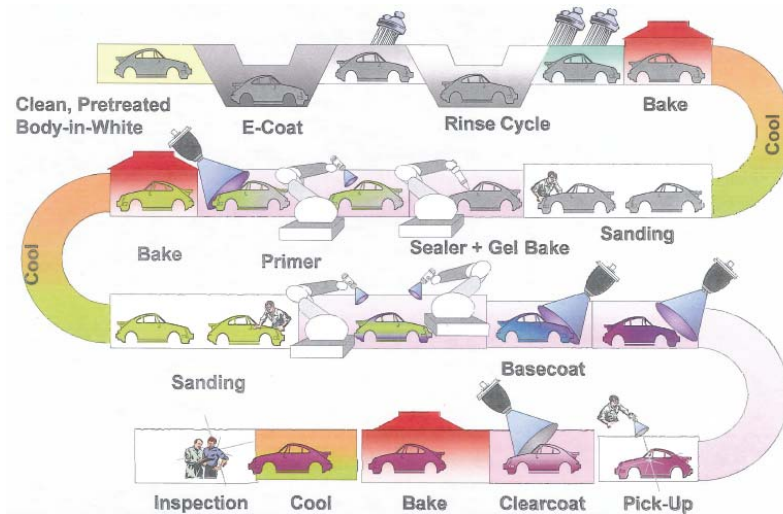
The traditional automotive paint process (hereinafter referred to as the baseline scenario), begins with the application of pretreatment and electrocoat followed by a primer layer. After the primer layer is cured, a topcoat layer of basecoat and clearcoat is applied and cured. The result is a five-layer lustrous and durable paint finish. This process is the industry norm, whether the topcoat chemistry is based on water, solvent, or powder.

**Project Scenario:**

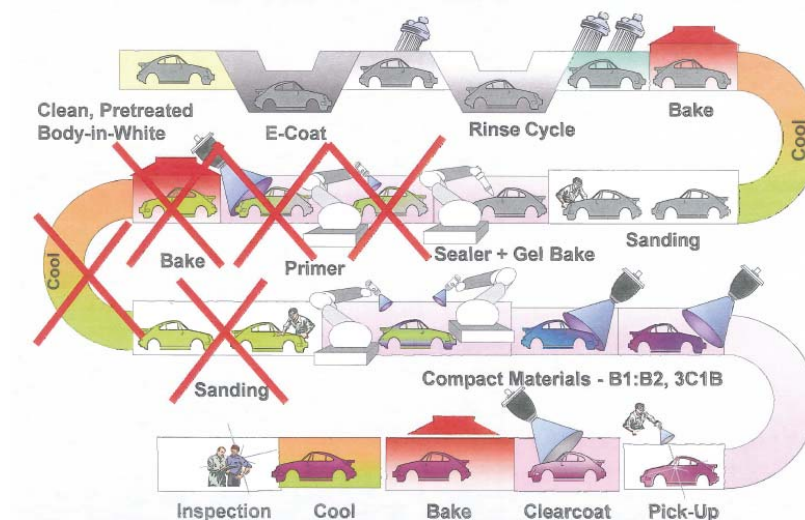
Driven by a general concern for cleaner production and a specific desire to reduce material, energy and time in the painting process, the proposed project activity involves the introduction of a new technology for the automotive paint process, namely PPG’s B1:B2 Compact Paint System. The use of such technology eliminates the need for primer by enhancing the properties of the two layers of basecoat that are used. In this system, the B1 layer provides primer, filling, anti-chip, and durability benefits. The B2 layer provides color and additional durability. Both the B1 and B2 layers are applied wet-on-wet without a heated flash-off zone in between.

In conclusion, the compact painting process eliminates steps associated with the priming phase, including the application of primer, and the subsequent baking, cooling, and sanding, offering energy consumption optimization compared to the baseline scenario. Consequently, some equipment used in the conventional painting process will be removed and proof that they will not be used elsewhere will be presented. In our understanding this is equivalent to replacing old equipment by new ones that have zero energy consumption.

The following figures show the difference between the baseline scenario and the proposed project.



**Figure 1:** Current Automotive Painting Process - Baseline Scenario



**Figure 2:** Compact Painting Process – Project Activity

PPG intends to implement the compact painting process on Greenfield sites as well as in existing facilities. For the case of existing facilities, the compact painting process can result in lower emissions for the same throughput or lower emissions intensity when the vehicle volume is increased but the energy consumption is held constant.

PPG calculated emission reductions based on energy savings due to the use of compact painting process, taking into account savings from electricity and natural gas as described above and would like to seek clarification on the following points:

- Is AMS II.D fully applicable to the project where savings occurs due to elimination of energy consuming steps in the painting process as described above? In this case, we understand that elimination of operating equipment is the same as replacing it by an infinitely more efficient one.
- Regarding the calculation of baseline emissions in the case of new facilities (Greenfield projects), we anticipate using a traditional painting process of the same painting capacity as the baseline scenario. We seek confirmation that this will be acceptable.

**Recommendation by the SSC WG:**

Please use the space below to provide amendments/change (in your expert view, if necessary).

Please refer to paragraph 28 of the meeting report of the SSC WG 29  
<[http://cdm.unfccc.int/Panels/ssc\\_wg](http://cdm.unfccc.int/Panels/ssc_wg)>.

**Answer to authors of query by the SSC WG:**

Please use the space below to provide answer to the authors of the above query.

The small-scale working group of the CDM Executive Board would like to thank the author for the submission.

The SSC-WG is of the opinion that Type II categories in general and AMS-II.D in particular are not applicable to the project activity (existing and Greenfield) where savings accrue from intrinsic changes in industrial processes and not from improved energy efficiency measures. The SSC WG noted that the underlying project activity involves change in the raw materials and process changes eliminating some steps in conventional automotive painting process. AMS-II.D is neither intended to cover implementation of the energy efficiency measures that will affect the nature of industrial/production processes as compared to the baseline processes, nor it is intended for project activities that involve changes in the raw materials used, unit operations, type and quality of product output.

The SSC WG is of the opinion that the following issues are not addressed under AMS-II.D:

- Upstream emissions associated with the production of the new raw materials (e.g. different paint), and possible impacts on quality of the final products (e.g. durability and quality of the painted cars ) are not accounted for;
- The project boundary is restricted to the steps of the production/manufacturing impacted by the project implementation within a complex industrial system. It can not be ensured that energy savings are attributable solely to the process and raw material changes. For example, a narrow formulation of the project boundary may omit capturing effect of the interaction between the energy efficiency measures implemented in the painting sector and the other industrial sectors, such as supply of process energy demand in one sector by implementing waste heat recovery activity in another sector;
- The methodology does not address an issue of a potential double counting of emission reduction for example a contractual agreement between the producer of the new paints and the automotive painting facility owner ( the user of the product) might be needed.

The SSC WG agreed to clarify that the underlying project may fall under Type III SSC categories if the above issues can be addressed.

Signed by the Chair, Mr. Peer Stiansen

Date: 14/01/2011

Signed by the Vice-Chair, Mr. Hugh Sealy

Date: 14/01/2011

**Information to be completed by the secretariat**

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