Minority Position on CT Gerhardi AfA

I, the undersigned, take a minority position based on the following arguments/justifications:

The applicant justified in his application, responses to SEAC, and during the Trialogue that there are no suitable alternatives within 7 years, in particular because of OEMs position that small aesthetic changes with some alternatives techniques are not acceptable to final customers.
As a SEAC member, so as to be able to assess the claim, I would therefore have expected market surveys, customer demand studies supporting that claim. The applicant provided significant information on technical and economic feasibility of alternatives, but did not provide information nor demonstration regarding this market/customer market analysis.
Such analysis could also have informed whether customers are ready to accept changes progressively and over which timeframes, and depending on which types of vehicles (market segments), and which parts of the vehicles.

I also find that the AoA does not recognize enough the growing acceptance by the market of Cr III solutions as an alternative for decorative plating[1]. Several companies offer Cr III plating services for the automotive industry, and a long review period could only be granted if it had been shown by the applicant that none of these solutions could apply to his productions during the normal review period.
The applicant mentioned during the trialogue that they knew about this alternative and that they had been trying it, but this is not enough documented and substantiated in the application.

Finally, the applicant also justified the long review period on the rationale that a normal review period would mean regulatory uncertainty for his clients and that they would in reaction turn to another supplier. I found this assertion not enough justified, and I note that the applicants' clients already accepted the uncertainty surrounding this authorization process without turning to competitors. The regulatory uncertainty regarding the review report is not obviously higher than that of the first application and I did not find the argument convincing.

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[1] In addition to resources mentioned in SEAC opinion, see also (for Cr III and also non-Cr alterantive)
http://industrial.macdermid.com/documents/resources/Seminar%20review%202014%20Germany.pdf and http://industrial.macdermid.com/cms/decorative/fashion-finishes/trivalent-chromium-platers/index.shtml

Overall I do not agree with granting a long review period for this application, because I think there is an uncertainty about the timeframe of availability/acceptance of alternatives by the market (by final customers and therefore by OEMs), and a lack of information and justification in the AfA on that alternatives (especially Cr III) could not be available during the normal review period.

21st of March, 2017

[redacted]

Jean-Marc BRIGNON

Joint Minority Position CT Gerhardi

We, the undersigned take a joint minority position on the basis of the following arguments/justifications:

1. Deficiencies in the AoA:

The applicant has tried to make the case that there are no alternatives and that these will not become available within the normal review period. While we do not disagree that by the sunset date there will not be a suitable alternative, we do believe that the state of the art in decorative chrome plating is much further along than the applicant has described in the application. It is true that Cr(III) plating still has certain disadvantages[1], but we would like to point out that these are issues related to operational conditions and are also observed when the Cr(VI) plating process is less than carefully controlled1,[2]. These disadvantages are also of more importance for functional chrome plating than for decorative chrome plating. The reason of course being that technical standards are higher when the chrome layer has to impart technical functionality on an object instead of having mainly an aesthetic function as is the case here.

Based on information we have consulted and assessed, and which has already been referenced in previous applications and opinions, there seems to be only one public example available of Cr(III)-based plating on an industrial scale[3]. It is however clear that efforts are being made to try and overcome the limits of the current type of Cr(III)-based plating. Another process, which focuses specifically on functional chrome plating, has been developed over the last several years and is already marketed to companies[3,4]. In the TURI report[3] and the public reports submitted to the EPA[4] the company that developed the technology, states that promising results are shown. The latest grant awarded by the US EPA shows that the process is being tested/adapted for a client in the aviation sector[4, 5]. In the final report linked to that grant[5], the developing company states that the data indicated that the physical properties of the chrome coating produced via their process exhibited similar properties to chrome coatings produced using the conventional

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1 http://www.turi.org/content/download/8713/145357/file/2006%20M&P%20Report%20Special%20Five%20Chemicals%20Alternatives%20Assessments.pdf

2 In general both processes do seem to have different operational quirks that one needs to be mindful of, but the difference in operational difficulties does not seem to be excessively large.

3 http://www.turi.org/content/download/7470/135092/file/Case%20Study%20Independent%20Plating%202012.pdf

4 https://cfpub.epa.gov/ncer_abstracts/index.cfm/fuseaction/display.institutionInfo/institution/781 and http://www.faradaytechnology.com/PDF%20files/Industrial%20Coatings%20&%20Fuel%20Cells/FARADAYIC(R)%20Process%20for%20Chromium%20Plating%20from%20a%20Trivalent%20Bath.pdf

5 **EPA Contract Number:** EPD12040
https://cfpub.epa.gov/ncer_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract/9485/report/F

hexavalent chromium process in terms of porosity, hardness, and adhesion. Furthermore, the report states that a reduction in cost per coated part (piston simulating for example the interior of landing gear) was demonstrated. It should be noted that these results are valid for functional chrome plating where the technical requirements are more stringent than for decorative use.

Therefore we do not think that the applicant has satisfactorily demonstrated the long term infeasibility, both technical and economical, of this alternative. As such the AoA, and the information therein, cannot be used as an argument for a long review period.

2. Remaining risk

RAC has not given any recommendation in relation to the review period. RAC has estimated the remaining individual risks measures as excess risk for lung cancer for 40 years exposure to be 4.8 $*10^{-3}$ for more than 200 workers (Table 14). This level for individual is above the indicative tolerable risk level of 10^{-5}, mentioned in REACH guidance R8[6]. However, neither RAC nor SEAC evaluate which level of the individual risk that is acceptable. Therefore in section 10 on the proposed review period it should have been mentioned that when recommending a review period the remaining risks for individual workers have not been taken into account.

3. Customer acceptance

The applicant places a lot of importance on customer acceptance arguments. So much so that we would have expected market surveys and customer demand studies supporting the claims made. Such an analysis could have informed SEAC whether customers are ready to accept changes and over which timeframes (depending on which types of vehicles, market segments and parts). While there is a lot of technical and economic information on alternatives, there is nothing that properly justifies the applicant's claims that customers would not accept parts made with alternatives to chrome(VI).

The above-mentioned arguments clearly show that a 12-year review period is not justified and a 7-year review period should be granted instead.

Simon COGEN
Maria NORING
Lars FOCK

[6] Guidance on information requirements and chemical safety assessment Chapter R.8: Characterisation of dose [concentration]-response for human health, p. 15 and Appendix R. 8-14.