Department
for Environment
Food & Rural Affairs

Authorisation Decision

by Marc Casale

Deputy Director, Chemicals, Pesticides and Hazardous Waste (DEFRA)

On behalf of the Secretary of State for Environment, Food and Rural Affairs

Decision date: 20 January 2025

Application Ref: AfA025-01

Authorised use

Use of chromium trioxide for the electroplating of sanitaryware and plumbing components for the purpose of creating a coating to provide very specific performance characteristics.

UK REACH authorisation number

Authorisation numbers	Authorisation holder
UKREACH/25/02/00	Broadway Brass Ltd
UKREACH/25/02/01	Crown Polishing & Plating Ltd
UKREACH/25/02/02	Douglas Metal Finishing Ltd
UKREACH/25/02/03	John Stokes Ltd
UKREACH/25/02/04	Midland Polishing & Plating
UKREACH/25/02/05	Star Polishing & Plating Ltd
UKREACH/25/02/06	The Sterlingham Co Ltd

Preliminary matters

- Chromium trioxide is listed in Annex XIV to assimilated Regulation (EC) No 1907/2006 concerning the registration, evaluation, authorisation and restriction of

chemicals (UK REACH).[1] As such, chromium trioxide is subject to the authorisation requirement referred to in Article 56(1) of UK REACH.

- Chromium trioxide was included in Annex XIV due to its intrinsic carcinogenic and mutagenic properties (Article 57(a) and Article 57(b) of UK REACH).
- Hexavalent chromium (Cr(VI)) is the form of chromium in chromium trioxide to which the hazardous properties are attributed.
- The application is made by seven members of the Surface Engineering Association (SEA) Chromium Trioxide Authorisation Consortium – Sanitaryware (each an 'Applicant', together, the 'Applicants'). See Annex A for the Applicants' names and addresses.
- Article 127GA of UK REACH applied to this application. The latest application date for chromium trioxide for this use was extended to 30 June 2022. The sunset date for this use was 30 June 2022.
- On 30 June 2022, the Applicants submitted an application for authorisation (the 'Application') to the Health and Safety Executive (the 'Agency') for the use of chromium trioxide for the chromium electroplating of sanitaryware and plumbing components for the purpose of creating a coating to provide very specific performance characteristics.
- On 6 November 2023, the Agency sent its opinion (the 'Opinion') for this Application to the Secretary of State for Environment, Food and Rural Affairs, and Scottish and Welsh Ministers.

Decision

1. This decision is addressed to the Applicants.
2. In accordance with Article 60(4) of UK REACH, authorisation is granted to the Applicants, as set out under the authorisation numbers in the above 'UK REACH authorisation numbers' section, for the following use of chromium trioxide:
    a. For the electroplating of sanitaryware and plumbing components for the purpose of creating a coating to provide very specific performance characteristics.
3. The review period referred to in Article 60(9)(e) of UK REACH is set at 12 years from the sunset date. The authorisation will cease to be valid on 30 June 2034 unless a review report is submitted in accordance with Article 61(1) by 30 December 2032.

[1] References to Regulation (EC) No 1907/2006, referred to in this decision as UK REACH, are to the assimilated law available online at https://www.legislation.gov.uk/eur/2006/1907/contents.

4. The authorisation is subject to the following conditions (as well as the requirement in Article 60(10) of UK REACH to ensure exposure is reduced to as low a level as is technically and practically possible):

    a. The authorisation holders must adhere to the operational conditions (OCs) and risk management measures (RMMs) described in the chemical safety report referred to in Article 62(4)(d) of UK REACH,[2] subject to the conditions and monitoring arrangements set out below

    b. The authorisation holders must arrange face-fit testing on each employee that is required to wear Respiratory Protective Equipment (RPE). Fit testing must be carried out by an accredited provider.[3] Authorisation holders can instead choose to issue a powered air purifying respirator (PAPR) to each person that needs to use RPE. If PAPRs are issued, the authorisation holders must instigate a programme of monthly thorough examinations and tests of each PAPR. This programme must be carried out by a competent person

    c. The authorisation holders must train employees in how to decontaminate and clean their RPE after each use before putting it back into their individual RPE storage locker or alternatively, instruct employees to discard each semi-disposable respirator as hazardous waste every time after it has been used, and then replace it with a new semi-disposable respirator

5. The authorisation is subject to the following monitoring arrangements:

    a. The authorisation holders must undertake measurements of personal exposures to Cr(VI) that are supported by appropriate contextual information regarding descriptions of the work activities being undertaken during each monitoring period. Air sampling surveys must be undertaken at least once in any 6-month period by each authorisation holder where the use takes place. These measurements must:

        (a) Be based on the methodology specified in BS ISO 16740:2005;[4]

        (b) Include personal inhalation exposure sampling measured on the lapel, and on the outside of any respiratory protection equipment that may be worn; and

[2] This is a reference to the chemical safety report dated 30 June 2022 submitted by the Applicants, as part of the Application. The risk management measures, and operational conditions are described in sections 9 (exposure assessment) and 10 (risk characterisation related to combined exposure).
[3] It is recommended that the competent provider has been certified under the Fit-2-Fit scheme – see also HSE guidance note INDG479 (rev 1) https://www.hse.gov.uk/pubns/indg479.htm.
[4] BS ISO 16740:2005 specifies a method for the determination of the time-weighted average mass concentration of hexavalent chromium in workplace air. This international standard is applicable to the personal sampling of the inhalable fraction of airborne particles, as defined in ISO 7708, and to static (area) sampling. The analytical method is applicable to the determination of masses of 0.01 micrograms to 10 micrograms of hexavalent chromium per sample, without dilution.

(c) Be representative of the range of tasks with possible exposure to Cr(VI) and of the total number of workers that are potentially exposed.

b. Once an authorisation holder has obtained a minimum of 10 personal exposure data points for any particular job role where significant inhalation exposure to Cr(VI) is likely to occur, the minimum frequency for further air monitoring for that particular job role can be reduced to the minimum of carrying out annual surveys, provided that the 90th percentile of the measured personal exposures to Cr(VI) are below the benchmark of 5 µg/m^3 as an 8-hour time-weighted average (TWA) (the 'benchmark');

c. Where the 90th percentile of the plating operator's personal exposure to Cr(VI) exceeds the benchmark as defined in 5.b. above, then the authorisation holders must either:

(a) Provide suitable, purpose-designed LEV on the chrome plating tank, or

(b) Modify their RMMs such that the 90th percentile exposure is below the benchmark of 5 µg/m^3 as an 8-hour TWA

d. Where an LEV has been installed or the RMMs have been modified to reduce exposures in accordance with paragraph 5.c. authorisation holders must undertake a personal monitoring survey on the relevant chrome platers at least six times per year using the methodology that is given in BS ISO 16740:2005 until they have obtained a minimum of 10 personal exposure data points, from which the new 90th percentile of the plating operator's personal exposure to Cr(VI) after the change in the RMMs shall be determined

e. Authorisation holders who choose to undertake the regular air monitoring as outlined in 5.a., 5.b. and 5.d. in-house, and who send the resultant samples off to an external laboratory, must commission a suitable laboratory to both supply the sample media and undertake the specialised analysis by ion chromatography and spectrophotometry using diphenyl carbazide for future monitoring surveys

f. The results of the measurements referred to above in points 5.a., 5.b.,5.d. and 5.e. must be documented by the relevant authorisation holder and made available upon request to the Agency

g. Subject to gaining appropriate consent from employees, authorisation holders must implement a voluntary biological monitoring (BM) programme for Cr(VI) in urine with samples collected post shift for the directly exposed worker

h. If BM data from 5.g. shows that exposures of Cr(VI) are above the biological monitoring guidance value of 10 µmol/mol creatinine (the 'BMGV'), then authorisation holders must carry out four BM surveys per year until three

consecutive BM surveys have produced no results that exceed the BMGV.[5] Any collected BM results must be anonymised

i. Where BM data from 5.g. is above the BMGV, authorisation holders must undertake a thorough and systematic review of their RMMs and apply improved measures to reduce Cr(VI) exposures to employees.

6. Authorisation holders whose BM data submitted as part of the Application exceeded the BMGV, or whose BM data was collected before 30 June 2017, or who did not submit any BM data as part of the Application, must submit a written update report to the Agency by 20 January 2026. Authorisation holders whose BM data obtained via their voluntary BM programme exceeds the BMGV (see sub-paragraph 5.h.) must submit an update report within 12 months of that BM data having been obtained. This update report must provide a review of the RMMs, including:

   a. Conclusions on the underlying root cause of previously obtained BM results greater than the BMGV

   b. Detailed descriptions, including photographic evidence as appropriate, of the revised RMMs and the proposed timescale for any improvement to the RMMs that have not already been implemented at the time of drafting the update report

   c. Subject to gaining appropriate consent from employees, anonymised details of further BM data that has been obtained following the implementation of changes to the RMMs

7. By 20 January 2032, each authorisation holder must submit a written interim update report to the Agency. This interim update report must demonstrate each authorisation holder's compliance with the above relevant conditions and monitoring arrangements and include:

   a. Data to demonstrate that the 90th percentile of the worker's personal inhalation exposure to chromium trioxide is equal to or below 5 μg/m^3 as an 8-hour TWA; and

   b. Data to demonstrate that the results from voluntary BM for chromium trioxide are equal to or lower than 10 μmol chromium/mol in urine samples collected post shift

8. Recommendations for the authorisation holders have been set out should the authorisation holders submit a review report in accordance with Article 61(1) of

[5] The biological guidance value (BMGV) for Cr(VI) exposure is given in HSE Guidance note EH40 as 10 μmol chromium/mol creatinine in urine with samples collected post shift.

UK REACH (See Annex B). These recommendations are not conditions of authorisation or conditions for any review report.

Background

9. This decision is made under Article 60(4) of UK REACH and having obtained the consent of Scottish and Welsh Ministers.

10. In making this decision I have taken into account:

    a. The Application submitted to the Agency

    b. The provisions of Article 60 of UK REACH, including the elements referred to in Article 60(4) and the requirements of Article 60(5)

    c. The Agency's Opinion

Reasons

11. In its Opinion, the Agency concluded that it is not possible to determine a derived no-effect level (DNEL) for the carcinogenic properties of chromium trioxide.[6] Therefore, for chromium trioxide it is not possible to determine a threshold in accordance with Section 6.4 of Annex I of UK REACH.

12. In accordance with Article 60(3)(a) of UK REACH, this means that Article 60(2) of UK REACH does not apply to this Application and authorisation may only be granted on the basis of Article 60(4) of UK REACH.

13. Authorisation may only be granted under Article 60(4) of UK REACH if it is shown that the socio-economic benefits outweigh the risk to human health or the environment arising from the use of chromium trioxide and there are no suitable alternative substances or technologies.

Risk to human health

14. Chromium trioxide presents a risk to human health due to its carcinogenic and mutagenic properties.

Workers

15. In its Opinion, the Agency concluded that the majority of workers' exposures to Cr(VI) in each worker contributing scenario (WCS) are likely less than the Agency benchmark of 5 μg/m^3 as an 8-hour TWA. The Agency noted that the Applicants' exposure assessment approach was acceptable as it represents the various tasks that are likely to be needed.

[6] The cancer risk is estimated according to the Committee for Risk Assessment (RAC) reference dose-response relationships for Cr(VI) carcinogenicity (RAC/27/2013/06 Rev.1). As a genotoxic mode of action (mutagenicity) is thought to be at least partially responsible for the carcinogenicity of Cr(VI), these relationships also account for the intrinsic property mutagenicity

16. In the Application, the Applicants did not provide any worker exposure estimates for each WCS. Additionally, in its Opinion, the Agency concluded that the Applicants provided limited personal exposure measurement data from each of the Applicants. Only a small proportion of Applicants provided enough data for the Agency to definitively conclude that Cr(VI) inhalation exposures are at an appropriate and effective level and thereby minimising the risk. Furthermore, in its Opinion, the Agency concluded that the sampling and analysis methodologies that were used by the majority of Applicants means that there is a certain degree of uncertainty about the reliability of their Cr(VI) exposure data.

17. In its Opinion, the Agency concluded that BM results from the majority of the Applicants have not exceeded the BMGV during the last 5 years. The Agency concluded that this provides good confirmatory evidence that the RMMs for the majority of the Applicants are appropriate and effective at controlling exposures from all routes. However, the Agency noted that three individual Applicants have not carried out any BM in the last five years, and that the BM results from one individual Applicant showed results that exceeded the BMGV. Therefore, in its Opinion, the Agency concluded that where the BM results exceed the BMGV, the current RMMs are not effective enough in controlling exposures to minimise the risk.

18. Noting the uncertainties regarding personal exposure data and some BM data exceeding the BMGV, in its Opinion the Agency proposed additional conditions which will address the specific identified deficiencies in the relevant individual Applicants' RMMs and OCs. Furthermore, the Agency proposed monitoring arrangements which will require relevant individual Applicants, whose BM data exceeds the BMGV, to collect new BM data and provide this to the Agency by 20 January 2026. In its Opinion, the Agency concluded that its recommended conditions and monitoring arrangements will provide reliable further information on the effectiveness of the OCs and RMMs, thereby reducing any outstanding uncertainty and reducing exposure where there is an identified need to do so. For the reasons outlined above, I agree that the proposed conditions and monitoring arrangements will ensure that the OCs and RMMs are appropriate and effective.

19. In its Opinion, the Agency concluded that the OCs and RMMs described in the Application are generally appropriate and effective in limiting the risk to workers and the Applicants have most of the necessary OCs and RMMs in place that should minimise the exposure of employees to Cr(VI). The Agency also concluded that the data received from the Applicants is confirmatory evidence regarding the effectiveness of the control of dermal and/or ingestion exposures when air monitoring has confirmed that inhalation exposures are at relatively low levels. Nevertheless, there is uncertainty regarding one high BM result, a lack of sufficient and reliable worker exposure estimates and concerns about deficiencies in relation to management of RPE.

20. The Agency assessed the monetised human health impacts to workers to be up to £337,000 over the 12-year review period. This accounts for 20 directly exposed workers across 7 sites in GB.

21. Having evaluated the Agency's assessment, I agree with the Agency's conclusions that:

    a. The OCs and RMMs described in the Application are generally appropriate and effective in limiting the risk to workers, provided that they are adhered to

    b. The inclusion of conditions of authorisation and monitoring arrangements will help to minimise any remaining uncertainty

    c. All the deficiencies that have been identified can be fixed by the Applicants, through the conditions of authorisation and the monitoring arrangements

Humans via the environment

22. In their Application, the Applicants stated there are no intentional releases to atmosphere, surface waters, or groundwaters, agricultural or non-agricultural soils. In its Opinion, the Agency considered that while releases to the environment are very limited, they cannot be entirely discounted. This is because the Applicants provided limited information on the environmental releases of chromium from electroplating using chromium trioxide, and no data specifically on emissions of Cr(VI).

23. In its Opinion, the Agency concluded that because of the limited emission monitoring data available, paired with the high number of users within the Application, significant variation in the effectiveness of the OCs and RMMs may be expected. Nonetheless, the Agency concluded that whilst this creates some uncertainty about the potential for emissions, the risk of human exposure is expected to be insignificant because of the reduction of Cr(VI) by organic matter in sewage and the environment. The Agency noted that the fact that Cr(VI) does not persist in the environment (except under aerobic conditions and at higher pH) means that the potential for significant exposure is very limited. Therefore, in its Opinion, the Agency concluded that the risk to human health via the environment is likely to be very low. Despite the lack of emissions data, in its Opinion, the Agency concluded that the OCs and RMMs are appropriate and effective in limiting the risk to humans via the environment. Any fugitive releases outside the workplace are unlikely to lead to significant human exposure, even at the local level.

24. In its Opinion, the Agency did not assess the monetised health impacts on humans via the environment because the exposure to the environment is expected to be very low, resulting in negligible monetised excess cancer risk.

25. Having evaluated the Agency's assessment, I agree that the OCs and RMMs described in the Application are appropriate and effective in limiting the risk to humans via the environment, provided they are adhered to.

Conditions of authorisation

26. In its Opinion, the Agency proposed conditions and monitoring arrangements to specific Applicants to address certain matters in the Application. However, to provide consistency and parity to the Applicants, I believe the same conditions and monitoring arrangements should apply to each Applicant due to the nature of the Application and the number of users within the Application. Whilst conditions and monitoring arrangements have been applied to all Applicants, the information submitted by the Applicants demonstrates that most Applicants are already compliant through their existing OCs and RMMs and have not reached the threshold for some of the conditions to be implemented.

27. In its Opinion, the Agency considered that a regular programme of BM is an important RMM for Applicants conducting chrome plating, as it highlights what individual employee exposures are from all routes of exposure. I therefore consider it appropriate that the condition in paragraph 6 is applied to all Applicants in order to enable Applicants to ensure that the OCs and RMMs are appropriate and effective at limiting the risk to workers, and to address any concerns regarding the Application.

28. The Agency further proposed a recommendation for one individual Applicant on RPE testing. This is a minimum measure to mitigate the risk of direct exposure of chromium trioxide to workers and I therefore consider it appropriate to apply this recommendation as a condition to all the Applicants to ensure good industrial practice is being followed and provide assurance that the OCs and RMMs will continue to be effective at minimising the exposures to Cr(VI) through all routes.

Monitoring arrangements

29. Having evaluated the assessment of the OCs and RMMs in the Agency's Opinion, I believe that the monitoring arrangements listed in paragraph 5 will provide assurances that the OCs and RMMs are appropriate and effective at minimising the exposure of workers to Cr(VI). I believe that the monitoring arrangements will address any shortcomings in the personal monitoring of inhalation exposure and will corroborate the effectiveness of the Applicants' OCs and RMMs. I agree with the Agency that such ongoing monitoring represents good industrial practice, and the data collected will facilitate the evaluation of risk.

30. One individual Applicant had recommendations proposed by the Agency. The Agency note that receiving BM data under the BMGV is an important consideration when evaluating the effectiveness of the OCs and RMMs. I believe it is therefore more appropriate for this recommendation stated in paragraph 5.g. to be included as a monitoring arrangement. The monitoring arrangement should also apply to all Applicants.

Recommendations for the Review Report

31. In Section 10 of its Opinion, the Agency also made a series of recommendations. Due to the proposed conditions and monitoring arrangements above, I have concluded that some of the recommendations made by the Agency are no longer necessary, as the requirements included within the proposed Agency recommendations have now been covered by the conditions of authorisation and the monitoring arrangements. Therefore, Annex B sets out a modified list of the recommendations that the Agency made.

Socio-economic analysis

32. In its Opinion, the Agency concluded that the Applicants have demonstrated that the socio-economic benefits of granting authorisation are higher than the risk to human health resulting from the granting of authorisation for the Application as a whole and for each individual Applicant. The Agency has not identified any uncertainties of such magnitude that they may affect this conclusion.

33. The Agency's Opinion assessed both the socio-economic benefits arising from the applied for use and the socio-economic implications of a refusal to authorise. The socio-economic benefits of authorisation are based on the cost of the most likely non-use scenario (NUS) if the Applicants were not granted authorisation. The most likely NUS would be that three of the seven Applicants would close, with all other Applicants losing 20 to 50% of its business. Although the Agency cannot verify all the costs of the NUS, it is accepted that this is the most likely scenario.

34. In its Opinion, the Agency concluded that the Applicants have demonstrated that the socio-economic benefits of granting authorisation outweigh the monetised risks. The minimum socio-economic benefit is estimated to be £8.8 million over 12 years, which consists only of the avoided social cost of unemployment for the directly exposed workers. This is a conservative estimate, and does not include any other potential benefits, such as avoided producer surplus loss.

35. Having evaluated the Agency's assessment, I agree with its conclusions on the quantitative and qualitative benefits.

Conclusion on whether the benefits outweigh the risk

36. In its Opinion, the Agency concluded that the Applicants have demonstrated that the socio-economic benefits of granting authorisation of at least £8.8 million over 12 years are higher than the risk to human health of up to £337,000 over 12 years.

37. I consider that the Applicants have shown that the socio-economic benefits outweigh the risk to human health because of:

    a. The likely assessed risks from the use of chromium trioxide

b. The likely quantitative benefits in respect of avoided profit losses and the avoided social costs of unemployment

Alternatives

38. In its Opinion, the Agency concluded that there were no available alternative substances or technologies with the same function and a similar level of performance that were technically and economically feasible for the Applicants by the sunset date.

39. The Applicants use chromium trioxide for the electroplating of sanitaryware and plumbing components for the purpose of creating a coating to provide very specific performance characteristics. Due to the Applicants being comprised of small and micro-sized companies, it was not considered feasible for the Applicants to conduct physical research and development. Nonetheless, the Applicants noted that extensive research had been carried out over a number of years into potential alternatives and used this to identify three potential alternatives to chromium trioxide through desk-based research. The three alternatives did not meet the technical or the aesthetic requirements needed for the required specifications, and as such, it was concluded that there were no available alternative substances or technologies feasible to the Applicants. To support this conclusion, the Applicants also provided brief assessments of three shortlisted alternatives. The Agency agreed with the Applicants' assessment approach and conclusions but noted that the quality of some sections of the analysis of alternatives could be improved, and better evidence could have been provided. However, this did not affect the Agency's overall conclusion on the availability of alternatives.

40. The Applicants did not produce a substitution plan. In its Opinion, the Agency concluded that as there are no feasible alternatives, the length of time required for the substitution of chromium trioxide would be difficult to determine. I agree with the Agency that the lack of a substitution plan is reasonable given that no technically or economically feasible alternatives were identified. Nonetheless, the lack of substation plan was factored into the Agency's recommendation of a 7-year review period as described in paragraph 43.

41. Having evaluated the Agency's assessment, I agree with its conclusion that the Applicants have demonstrated the absence of suitable alternatives. In reaching this conclusion, I have considered the Agency's assessment of the technical and economic feasibility of alternative substances already on the market. The Agency did not evaluate the risk of alternatives due to the alternatives not currently being technically feasible.

Review period

42. In its Opinion, the Agency recommended that the review period referred to in Article 60(9)(e) of UK REACH should be set at 7 years from the sunset date.

43. In the Application, the Applicants requested a 12-year review period due, in part, to the complexity of substitution over that period. The Agency recommended a 7-year review period after consideration of the appropriateness and effectiveness of the OCs and RMMs, the reliability of exposure assessments, the absence of a suitable LEV system, and the absence of a substitution plan.

44. I instead consider a 12-year review period with an interim update report, to be provided at 7 years from the authorisation date, to be more appropriate. In reaching my conclusion I have noted that the Applicants have demonstrated there are no technically and/or economically feasible alternatives and the benefits outweigh the monetised risks. Additionally, in its Opinion, the Agency identified that the Applicants needed to obtain more sufficient data (air monitoring and BM) sooner to provide additional in-depth information on potential risks to workers. The condition requiring the authorisation holders to submit an update report by 20 January 2032 will allow for updated information on the risk to workers to be provided sooner, lessening the concerns and removing the need for a shorter review period. The update report will allow the Applicants a sufficient amount of time to provide further assurance that the OCs and RMMs are appropriate and effective at minimising exposures to Cr(VI). I consider that any issues with the current data do not justify a shorter review period of 7 years.

45. Therefore, with the condition of the requirement to submit an update report by 20 January 2032, as outlined in paragraph 7, I consider a 12-year review period to be appropriate.

Conclusion

46. For the reasons set out above I conclude that the socio-economic benefits outweigh the risk to human health for the applied for use of chromium trioxide set out in paragraph 2 and that there were no suitable alternative substances or technologies available by the sunset date.

47. The Scottish Ministers and the Welsh Ministers have given their consent to this decision in accordance with the requirements of UK REACH.

Marc Casale

Deputy Director, Chemicals, Pesticides and Hazardous Waste

On behalf of the Secretary of State for Environment, Food and Rural Affairs

Annex A: Company name and contact address

Name	Address
Broadway Brass	Units 1-3 Brunswick Industrial Centre, Hertford Street, Birmingham, B12 8NJ
Crown Polishing & Plating Ltd	Derry Street, Wolverhampton, WV2 1EY
Douglas Metal Finishing Ltd	Unit 3b, Juno Way Industrial Estate, Juno Way, Lewisham, SE14 5RW
John Stokes Ltd	60 High Street, Princes End, Tipton
Midland Polishing & Plating	Unit 1, Moorfield Road, Blakenhall, Wolverhampton, WV2 4QT
Star Polishing & Plating Ltd	Graisley House, Graisley Row, Wolverhampton, WV2 4HJ
The Sterlingham Co Ltd	Units 2&2A, Stamford Street, Ambelcote, Stourbridge, DY8 4HR

Annex B: Recommendations

1. The Agency has set out recommendations for the authorisation holders in section 10 of its Opinion. These recommendations are not conditions of authorisation or conditions for any review report. Due to the proposed conditions and monitoring arrangements contained within the decision report, I have concluded that some of the recommendations made by the Agency are no longer necessary as the requirements included within the recommendations have been covered by the conditions of authorisation and monitoring arrangements. Therefore, Annex B provides a full list of the current recommendations should the authorisation holders submit a review report in accordance with Article 61(1) of UK REACH.

Recommendations that apply to all seven companies in the SEA Sanitaryware Consortium:

2. Each Company in the SEA Sanitaryware Consortium should keep a documented record of the management of the mist suppressant to demonstrate that the surface tension of the electrolyte is being maintained within an appropriate band over the course of the authorisation. The documentary records should be included in the next review report and, upon request, should be submitted to the Agency.

3. The Agency advise the Applicant that consideration should be given on how in the future the Cr(VI) exposures can be further reduced (preferably to no more than 1 μg/m^3 as an 8-hour TWA).