MINUTES

AP refer to Action Points listed at the end of this document.

1. Welcome & Introduction

1.1. Reminder on Confidentiality and Competition Law.

Participants were reminded on their obligation to comply with confidentiality and Competition Law rules.

1.2. Tour de table and apologies

The list of participants and apologies is available in Annex 1.

1.3. Approval of the agenda

The agenda is available in Annex 1. No remarks/additions; agenda approved.

1.4. Approval of the minutes of the last meeting (1 April 2014) - including status of action points

The minutes of the meeting were approved. The status of actions is reported in slides 5-7 of Annex 2.

2. Environmental exposure assessment of PM Refinables *(Cf. slides 8-16 in Annex 2)*

2.1. Rationale of driving constituents selection

- For the dossier upgrades submitted in April 2014, the environmental exposure was assessed on the basis of the individual constituents posing the greatest risk or the 'driving constituents'. Each constituent was assessed separately with a holding statement on the future intention to consider mixture toxicity. For the combined toxicity assessment, we will follow the approach being developed by Eurométaux. AP1
- The selection of the driving constituents for environmental exposure assessment was assessed based on the following criteria:
  - Classified as hazardous to the environment;
  - Availability of PNEC for risk characterisation;
  - Availability of monitoring data to enable exposure assessment.

  Ag, As, Cd, Cu, Ni, Pb and Zn were considered for the April dossier upgrades, but based on above criteria, **Se, Te, Co and Sn** should also be added to the list of driving constituents. For the April upgrades, the potential risk of these constituents was addressed by a qualitative assessment (i.e. assessment of other constituents present at higher concentrations, and with lower PNEC), but for the next dossier updates, waste-water monitoring data for these constituents need to be collected.
- Monitoring data for **PGMs** also need to be collected. PGMs are not yet registered under REACH, but many of them are or will be classified for environmental hazard following generation of test data (based on our experience with Pd, many PGMs will have low PNECs, which might be a problem for the detection limit). Not all PGMs will be classified but we are working on a worst-case basis.
- It is noted that Cr is not on the list of driving constituents, as it is discharged as Cr(III), which is not hazardous. Os is not on the PMC inventory so was not included.
- The approach for the selection of the driving constituents is in line with Eurométaux recommendations and what other consortia are doing.

2.2. Collection of monitoring data for Se, Te, Co, Sn and PGMs

- In order to collect monitoring data on the driving constituents, an environmental exposure questionnaire was recently circulated. In addition to collecting data on the newly added constituents, we would like to update all the environmental exposure data (previous monitoring data were collected in 2011 and probably measured in 2009 or 2010), and update the data for production/use tonnages. AP2
- Stack emissions to air for the full list of constituents are also requested (as very little data was provided previously).
- It is noted that existing data provided for PGMs emissions can be transferred to the Refinables to avoid duplication of effort (emissions data for PGMs and characteristics of receiving water environment).
- Exposure data are welcomed from all companies, even if they haven't provided any previously.
- Additional exposure monitoring may be required where data are currently not available:
  - Waste water emissions for exposure assessment of aquatic environment;
  - Measurement of stack emissions to inform risk assessment of man via the environment (MvE).

- The collected data will be used for the generation/update of site-specific risk assessments (SSRAs) and the generation of a revised Generic Exposure Scenario (GES) to represent the whole sector. **AP3**

Comments:

- So far, two companies provided additional/updated monitoring data. There are at least two companies reluctant to participate to the current data collection. Some companies indicated they already provided all the data they have in the past and they cannot provide additional data. It is noted that it is each company's individual choice and responsibility, but those companies that do not provide (updated) data, will not receive an (updated) SSRA.
- The collection of new/updated data is also important for the assessment of combined toxicity.
- It is noted that if we have a good dataset for some sites/metals and sparse data for other sites or metals, the assessment may become biased.
- If additional exposure monitoring is needed, this implies additional costs. However, monitoring additional elements is not that expensive. In terms of method validation, it can be difficult to just add another metal to the monitoring programme (but it is better to have uncertified data than no data).
- Some companies indicate they have scans already available so it may be possible to provide additional data retrospectively. The data may not be that accurate but may be indicative, which is useful.
- The aim of the data collection is to prove safe use at all company sites. We already demonstrated RCR < 1 but current calculations are based on assumptions. We need additional data for the calculations and for the validation of the use of SpERCs.
- It is noted that we already have some additional data from the PGM project, and some companies already gave information on Co data. It is anticipated that data on Se, Te and Sn may be sparse.
- **The WG agrees that companies willing to contribute to the data collection, should do so as soon as possible and then WCA will update the assessment based on that.** We will re-evaluate the need for additional monitoring then. Other companies may be convinced to contribute by that time.
  AP3-4

3. Substance identity (SID) of PM Refinables *(Cf. slides 18-34 in Annex 2)*

3.1. Further information from ECHA

- We have received no feedback from ECHA on the dossier upgrades so far, and have no indication that ECHA has looked at our upgrades in detail.
- As mentioned before, ECHA asked for a call with Eurométaux on 4 April to discuss SID (attended by Caroline Braibant) and ECHA specifically requested to discuss 4 PM examples: matte, slimes & sludges, residues from cementation and reduction, and flue dust:
  - ECHA was satisfied with the explanations provided on the variability for matte, residues, and flue dust.
  - For slimes and sludges ECHA spontaneously asked why we had grouped slimes from electrolysis processes with sludges from hydro-metallurgical processes. Caroline explained that in the BRef these are described as hydro-metallurgical processes overall and that the existing EINECS entry groups slimes and sludges. However, ECHA remarked we have generated new, separated entries for other Refinables like the electrolytes. **ECHA clearly stated electrolysis is a separate process justifying separate UVCB registrations.** There has been quite a lot of debate within the Refiners WG about splitting the slimes and sludges but so far, no decision has been made and the slimes and sludges were still registered as one group for the April upgrades.
  - ECHA insisted that the variability of each Refinable, and possible approaches to decreasing the variability by splitting would need to be described in detail in each CSR. This was hence done by the PMC secretariat and checked by the LRs before submission of the dossier upgrades. Now we need to further refine our SID approach using the SID decision tree to prepare for further questions from/discussion with ECHA.
- WG members were reminded about the ECHA service to change their identifiers (cf. slide 20 in Annex 2). In case the WG decides to split one or more Refinables and needs to use this service, Eurométaux suggested we contact Mike Rasenberg (Head of ECHA Unit Computational Assessment and Dissemination) rather than going through the ECHA helpdesk. We will therefore first finalise our SID check and if we need to split Refinables, we will contact ECHA before the next dossier updates on the correct procedure. **AP5**

- ECHA released a new practical guide on how to assess whether a substance is used as an intermediate under SCC and how to report the information for the intermediate registration in IUCLID (http://echa.europa.eu/documents/10162/13655/pg16_intermediate_registration_en.pdf). Eurométaux has identified possible differences / similarities with the ECHA guidance on intermediates published in 2010 (cf. Annex 3) and concluded that the conditions to meet SCC have not changed: REACH Articles 17 and 18 remain key.
- On 6-7 October, ECHA held a workshop on SID and substance sameness (attended by Katrien Arijs), with a focus on UVCBs (cf. Annex 4.1 and 4.2):
    - Presentations were given by ECHA, MSCA and industry (chemical, petroleum, metal) and discussions were held in breakout groups (different industry groups) on how to assess the sameness of UVCBs.
    - Eurométaux was asked to present their view on substance sameness at the workshop and a presentation was prepared by Katia Lacasse, Violaine Verougstraete and Katrien Arijs (sent to the WG on 15 Sep). A (fictitious) Cu UVCB case was presented during the break-out sessions.
    - ECHA stressed the importance of resolving uncertainties on substance sameness regardless of whether a substance is covered by EINECS or not.
    - ECHA is looking at streamlining the methodology to identify UVCBs, inspired from rules applicable to well-defined substances. The proposed methodology for substance sameness follows 3 steps/depictions and is based on the EINECS reporting rules (cf. slides 24-27 in Annex 2):
        1) Identify the parameters allowing a structural representation of the substance (80% rule for comparing compositions of UVCBs, to be seen as a coherent substance sameness criterion across mono-, multi-constituent and UVCB substances).
        2) Identify any additional parameters necessary to represent the substance by the reaction scheme.
        3) Identify any additional parameters necessary to represent the substance by the process (source + technology).

      These 3 steps/depictions will not be applicable to all UVCBs but when one is not applicable, then more information and justification must be provided on the other two.
    - Regarding the possible validation of the ECHA list numbers, ECHA stated that they have no intention to revise the EC inventory (at least not before the 2018 registration deadline). There is however general agreement (from both the industry and ECHA) that this needs further attention/discussion before bringing it to OECD level, as these list numbers should be considered in a regulatory context.
    - Key messages from the workshop:
        - Both the different industry sectors and the MSCA are still struggling with SID of UVCBs.
        - There was general support to explore the applicability of the proposed 3-step sameness methodology further, but there were still quite some questions on how it will work in practice. ECHA does not have answers to all these questions and recognises there will always be a 'grey zone' for SID of UVCBs.
        - In the 'grey zone', after using the proposed methodology, it is important to make the argumentation that the chosen SID approach is sound.
        - **ECHA indicated that they do not expect us to revise our SID approach completely but thinks some further work is needed from industry's side to rationalise and document our approach so that it is transparent**.
- It was noted that an SID project is ongoing tendered out by the European Commission, in which SID and sameness of complex substances is investigated, i.e. substances for which the application of the substance identification provisions of REACH and the rules and conventions of the SID guidance pose challenges. The aim is to develop sector-specific factsheets providing key information and best practices in identification of complex substances in selected industry sectors. Eurométaux has reached out to the European Commission on this project in case they want to draft NFM sector specific sheets for inorganic UVCBs.

Comments:

- For the PM slimes and sludges, ECHA has made a very clear statement to us that electrolysis and hydro-metallurgical processes should not be grouped. **The WG agrees that companies who disagree with splitting these processes, should write a justification on why they are the same.**
- It was noted that ECHA is demanding more and more information on substance characterization for

UVCBs (e.g. ongoing discussions with Reconsile consortium regarding Karstedt concentrate).

- For the PGM substances, there is a 'Sameness Expert Group', a small group of people who decide on analytical techniques and sameness. It was suggested to initiate a similar group/forum for the PM Refinables, in order to discuss various processes, feedstock, analytics, etc. and develop a key document explaining how we have approached SID and justifying the steps we have already taken. It was noted that member companies should be writing this document and not the PMC Secretariat. Dave Boyd, Mike Shepherd, Roland Brasch and Christoph Roehlich indicated their interest in joining the **expert group/task force to discuss the sameness of PM Refinables**. **AP6-7**

3.2. **UVCB identification rules: decision tree for SID**

- Following the 30 June PM Ref WG conference call on SID and subsequent input from several WG members, a new version of the SID decision tree was circulated to the PM Ref WG, which mentions the Refinables per process. The new decision tree consists of 4 parts with references to the various parts as applicable. Processes are split in hydro-, electro- and pyro-metallurgical processes (part 1-3). In part 4 of the decision tree, SID is checked for all Refinables based on the source. This is an SID validation step rather than an SID determination step (justification why we are grouping several sources for the same Refinable).
- There was discussion on whether all members have the same understanding of hydro-, electro- and pyro-metallurgical processes. **AP8**
- The WG agrees that the decision tree is an internal tool, which should illustrate how systematic our SID approach is, and which shows how to split/group certain Refinables. Once we have finalized it, it is suggested to circulate it to other consortia for an additional check. The aim is to first agree on the decision tree internally and then focus on how to argument our approach to ECHA (possibly by showing them the decision tree). The decision tree is relevant for step 3 of the ECHA proposed 3-step sameness methodology. The composition of the Refinables (step 1) should be discussed separately.
- There was discussion on the steps to take when we decide to split dossiers and we need to assign new identifiers. **AP9**

<u>Decision tree part 1: Hydro-metallurgical processes</u>

- Some WG members suggested to group precipitation and leaching. However, leaching is the creation of a liquid from a solid, whereas precipitation is the creation of a solid from a liquid. The WG agrees that at first glance, these processes could not be the same.
- Sludges can result both from precipitation and leaching processes; it was decided in the past to group both sludges based on composition/classification.
- Solvent extraction should not be added as a separate process as no separate substance is created, only a by-product (not intentionally produced). A by-product does not need to be registered under REACH.
- Some WG members suggested to group cementation and precipitation. However, cements are often metallic, whereas precipitates would be hydroxic. The WG agrees we should keep these processes separate.
- It was suggested to differentiate between oxidic and hydroxic precipitates.

<u>Decision tree part 2: Electro-metallurgical processes</u>

- It was suggested to first split by process and then by source.
- It is important to have a consistent approach: when do we look at source, when at process? It was noted that for Doré, we may have to split in Ag and Au doré.

<u>Decision tree part 3: Pyro-metallurgical processes</u>

- It was suggested to group calcining, roasting and incineration.
- For smelting, it was suggested to distinguish between concentrates, slags and dust.
- For the concentrates, there is a separate Refinable when using a Pb collector (Pb bullion, PGM rich). However, also Fe and Cu collectors can be used: do we need to add Refinables for these?
- It was suggested to add fusion as a separate process, or group it with calcining, roasting and incineration. Fusion is not classical smelting, as a flux is added. Now the outputs from fusion processes are considered slimes and sludges.

3.3. **Way forward**

Following above comments, the decision tree will be updated and re-circulated (cf. Annex 5), and

further discussed by the PM Ref Sameness Expert Group (AP10-11). It was suggested to organize an Expert Group meeting close to the PMC General Assembly meeting.
*(**Post-meeting note**: The Expert Group meeting will be organized in January-February in order to properly prepare for the meeting.)*

4. Classification of PM Refinables

4.1. **Collection updated LE specific compositions**
Current data on LE specific compositions are from 2009-2011 (except for PM slags and PM slimes and sludges where updated compositions were collected during the splitting exercise). Some companies provided detailed composition data in the past, but others only provided compositions up to 20%, so updated composition data will be collected. AP12

4.2. **Revision of classification-related compositions**
For the purpose of classification, the compositions of the PM Refinable clusters are defined by means of formulas. It was agreed at the last WG meeting to change these formulas into elemental compositions (max of typical) where possible for the next update.
It was noted that it has been agreed at Eurométaux level to change the STOT SCL for Pb compounds in MeClas and that we should wait for this update before updating the Refinables classifications.
AP16

5. Future work programme

5.1. **Action list & timing for next update**
The action list for the next update was presented (cf. Annex 6). For the MSDS, it was suggested to check who needs translations so costs can be shared. Standard phrases should be used. AP23-24
It was suggested to perform the next update of the Refinables dossiers by Summer 2015.
*(**Post-meeting note**: Since this is a spontaneous update, it was decided not to rush the updates but rather take the time to focus on SID/splitting first and then update the dossiers by early 2016. The timescale in the action list below has been updated accordingly.)*

5.2. **Project plan** *(Cf. slides 41-42 in Annex 2)*
As requested by the PMC Assembly in Bern (12 June 2014), and in order to have a basis from which consultants will be able to produce working proposals and invoice PMC, a project plan for the Refinables project has been developed. The project plan is entirely for the 'upgrade' registration programme, starting in 2011. Currently the project plan is made up in Excel, but it will be imported into MS Project and will be circulated to the WG for approval.
*(**Post-meeting note**: The project plan is now available in MS Project. A screenshot is available in Annex 7 and has been presented at the PMC General Assembly meeting on 3 December. The full MS Project version can be obtained from the PMC Secretariat upon request.)*

5.3. **Budget update** *(Cf. slides 43-44 in Annex 2)*
An update of the 2014 expenses for the PM Refinables project was presented: by end August about 308 k€ was spent of the 612 k€ budgeted (it was agreed to use the Refinables reserves to finalise the 2014 dossier upgrades). This means about 308 k€ reserves still available.
At the PMC Assembly in Bern, it was stated that the 2013 Refinables reserves should in principle be able to cover for the 2015-2020 Refinables budget needs, unless massive amounts of additional work is requested by ECHA. However, this statement did not take into account the 2014 expenses, underestimated the minimum reserves to be retained in-house, and underestimated the 2015-2020 costs (cf. slide 44 in Annex 2). Hence, the remaining Refinables reserves are not sufficient to cover for future budget needs and invoicing in 2015 will be needed (as already indicated in Caroline's e-mail of 17 July announcing the 2015 invoice amounts).
*(**Post-meeting note**: Together with the WG chairs, the PMC Secretariat prepared an update of the 2015 budget for the Refinables, that was sent to the WG on 20 November and presented and approved at the 3 December PMC Assembly meeting. The revised 2015 Refinables budget is based on the action plan and recent proposals from WCA and EBRC, that were also sent to the WG for approval on 20 November.)*

6. Next steps, AOB, next meetings/calls and closing remarks
It was noted that 4 Borates are on the Final 6th Recommendation List for REACH Annex XIV and public consultations (ECHA & COM) period is running until 30 November. A PMC Secretariat communication will follow to better scope out the extent of the challenge for the PM sector and response to the public consultation is left at each company's discretion The PMC Secretariat will support by transmitting any information received from EBA and answering general questions on the Public Consultation process.

A date for a next meeting will be communicated in due time but February/March 2015 is suggested to discuss the status of the next update.

Annexes

1. Agenda & list of participants
2. Slides presented at the meeting
3. Short analysis of the ECHA Practical Guide 16 (Eurométaux, Aug 2014)
4. ECHA workshop on substance identification and sameness 6-7 Oct 2014:
   - **4.1.** Background document (ECHA, 17 Jul 2014)
   - **4.2.** Summary notes (PMC and ECI, Oct 2014)
5. SID decision tree:
   - **5.1.** Part 1: Hydro-metallurgical processes
   - **5.2.** Part 2: Electro-metallurgical processes
   - **5.3.** Part 3: Pyro-metallurgical processes
   - **5.4.** Part 4: Sources
6. Action list for future updates *(**Post-meeting note**: to be replaced by below action list)*
7. PM Refinables project plan screenshot

Actions

Table 1. Actions resulting from the 10 October 2014 PM Refiners WG meeting in Brussels

	Action	Who?	Timeline
Environmental exposure assessment			
1.	Keep WCA informed of developments at Eurométaux level regarding assessment of inorganic UVCBs	PMC Sec	As needed
2.	Return environmental exposure questionnaire with <u>all</u> available emissions data on the driving constituents present in the PM Refinables at their site	PM Ref WG	By end 2014
3.	Changes/additions for the next update: • Compilation of emission data from questionnaires for all driving constituents to update the environmental risk assessment • Improve/extend consideration of combined toxicity	WCA	Q4 2014 – Q3 2015
4.	Sign data-sharing agreements for all driving constituents	PMC Sec	Q1-Q3 2015
Substance identification (SID)			
5.	Contact ECHA on procedure to split dossiers	PMC Sec	After SID check
6.	Check with the PM Ref WG who wants to join the PM Ref Sameness Expert Group (company representatives that do not usually attend the WG meetings but that are process experts are also welcome) - Already confirmed members: D. Boyd, M. Shepherd, R. Brasch and C. Roehlich	PMC Sec	ASAP
7.	Organise meeting of the PM Ref Sameness Expert Group	PMC Sec	Jan-Feb 2015
8.	Define hydro-, electro- and pyro-metallurgical processes (based on the BREF?)	C. Roehlich	Jan-Feb 2015
9.	Draft action list on what needs to be done when splitting PM Refinables, including administrative actions	PMC Sec	Jan-Feb 2015
10.	Update SID decision tree following comments made at the meeting	PMC Sec	Done (cf. Annex 5)
11.	Finalise SID decision tree, decide on need for splitting and draft document explaining the PM Ref WG's approach to SID and justifying the steps we have already taken	PM Ref Sameness Expert Group	Feb-Apr 2015
12.	Collect updated LE specific compositions to further refine SID (composition + speciation)	PMC Sec	Q4 2014 – Q1 2015
13.	Perform further speciation analysis where needed	PMC Sec	Q1-Q2 2015
14.	Update ID cards and IUCLID files following refinement SID / splitting	PMC Sec with WCA and EBRC	By end 2015
Classification			
15.	Perform 28d TDP test on Doré to refine the classification	PMC Sec	Q1-Q2 2015
16.	Check if the STOT SCL for Pb compounds has been updated, and change the formulas in	ARCHE	Q2 2015

	the classification-related compositions into elemental compositions (max of typical) where possible and update IUCLID files		
CSR – human health and occupational sections			
17.	Changes/additions for the next update: • Include additional activity class (AC4) for some companies • Include additional PROCs (4 and 27b) for some ACs • Close current data gaps (data access, exposure estimates, DNELs) • Correct RC tables where needed • Include additional information on assessment of typical dermal exposure levels in methodology paper • Check OCs and RMMs for Pb • Improve/extend uncertainty analysis • Improve/extend consideration of combined toxicity • MvE assessment: follow up Eurométaux approach	EBRC	By end 2015
Phys-chem testing			
18.	Check for which substances TDP testing may be needed	PMC Sec	After AP11
19.	Have TDP tests conducted at ECTX for Flue dust and other Refinables identified in AP18	WCA	After AP18
Updates			
20.	SIEF communication together with the LoA Agreement/price announcement	PMC Sec	ASAP
21.	Update dossiers for Ag and Au electrolytes (SCC intermediates) as needed (for a transported SCC intermediate >1000 tonnes, the data requirements on the substance's intrinsic properties as specified in Annex VII must be included)	PMC Sec with WCA and EBRC	Q1-Q2 2015
22.	Finalisation of updates CSRs and IUCLID files	WCA, EBRC & PMC Sec	Early 2016
23.	Check who needs MSDS translations so costs can be shared	PMC Sec	Q1 2015
24.	Produce generic (e-)MSDS contents using standard phrases	WCA	Q1-Q3 2015