



Flanders
State of the Art

MMP approval process: Lessons learned in Flanders

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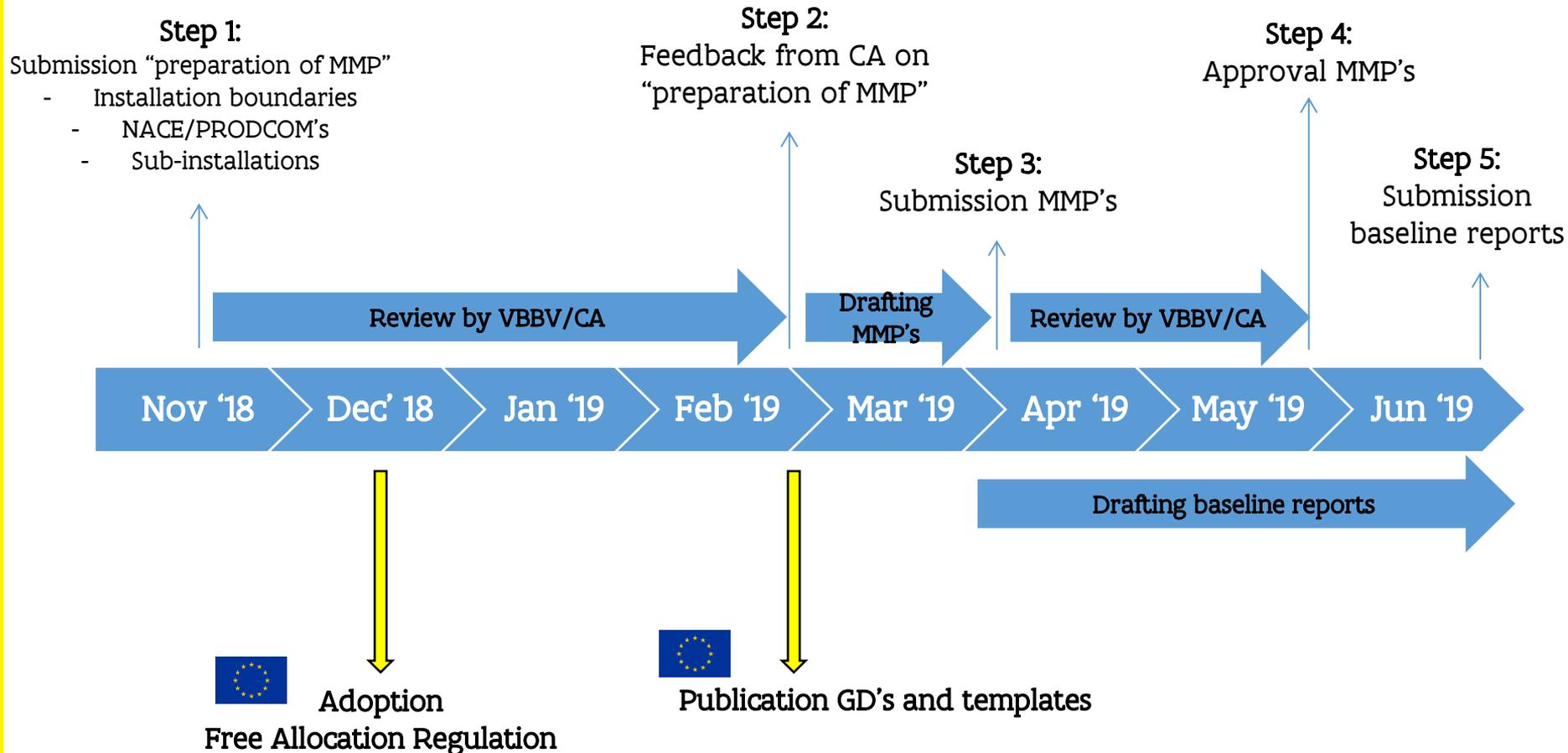


Approach in the Flemish Region:

MMP approval by CA **before** submission of baseline report

- Avoid too much reliance on verification bodies, which are new to allocation rules and will face time pressure;
- Avoid errors in baseline reports that will be difficult to correct in a later stage.

Timeline



End of the story?

- Approved MMP's mainly 'backward-looking'
 - Many sections incomplete/insufficiently clear (e.g. procedures)
 - Further errors detected during baseline report /NIMs assessment process
- **Comprehensive review/forward-looking MMP required by 31 December 2019 for all installations**
- **Same deadline for submission of MMP of installations that started operations after 1/1/2018**

Experiences of VBBV (Verificatiebureau Benchmarking Vlaanderen)

- Based on “preparation of MMP” and MMP of 164 installations
- Main reasons for multiple remarks/shortcomings:
 - insufficient knowledge of FAR / Guidance docs / ...
 - people often do not read or do not understand the requirements (in the template) indicated in blue!!
 - changes in staff of operators

Installation description (tab C)

- Split of installation in sub-installations not always well performed
sometimes not 100% clear in GD's: e.g. fuel use for waste treatment is eligible; what about heat?
- (Too) brief description of the installation and its processes; missing link with sub-installations
- Lack of clear and satisfying (complete?) flow diagrams
- Technical connections (measurable heat → mainly steam)
unclear about e.g. steam (imported) and condensate (exported):
to be treated as 2 separate heat flows (import & export) or 1 net flow (only import)?
→ implications for the heat balance (in baseline report)

Methods – tab D I

- D I (a) – “physical parts of installation which serve more than one sub-installation”: several mistakes, confusion in case of multiple sub-installations
- D I (b) – “methods to assign parts of installation and their emissions to the respective sub-installations”: very often filled out even if not required because item (a) was empty
- D I (c) – “methods used for avoiding data gaps and double counting”: unclear if this part must always be filled out or only in case D I (a) is not empty

Procedures – tab D II

- Too often operators considered the requirements in this section identical to the procedures in their Monitoring plan;
 - only valid for part (a) – responsibilities
- Will be evaluated more strictly in the “forward looking” version of the MMP’s

Energy flows – tab E

- Missing link between the MMP and the baseline data report template; confusion between tab E (requirements on installation level) and tab G (on subinstallation level)
 - Fuel input vs. Activity level of the fuelbenchmark sub-installation(s)
 - Measurable heat at installation level (=heat balance) vs. Activity level of the heatbenchmark sub-installation(s)
- Examples applying the described methodology are often missing or examples with only hard data, i.e. without any formula, explanation and reference to the baseline data report
- “Unreasonable costs” were very rarely demonstrated correctly
→ focus in forward looking MMP

Energy flows – tab E

- Case recovery of heat out of a FB sub-installation:
 - section E.I: recovered heat/0,9 must be subtracted from the FB activity level
 - section E II: this recovered heat must be included in the total net generated heat in item (a)

→ often not correctly described in the MMP (and applied in baseline data report)
- Case recovery of heat out of waste gas incineration:
 - section E.I: energy input of the waste gas must be added to the fuel input for the generation of measurable heat
 - section E II: this recovered heat must be included in the total net generated heat in item (a)

→ often not correctly described in the MMP (and applied in baseline data report)

“Hierarchical order” (tab E to G)

- Input of wrong type of data source
 - 4.4(a) but not used/mentioned in the monitoring plan
 - 4.5(a) but no national metrological control or no compliance with Directive 2014/32/EU
- Net measurable heat:
 - incorrect indication of the method (1 to 4)
- Input of “technically infeasible” without acceptable reason(s)

PB sub-installations – tab F

- In some cases: discussions about the boundaries of the product benchmark subinstallation; e.g. steamcrackers (utilities included or not?)

Heat- and fuelbenchmark sub-installation – tab G I (1-5)

- (a) System boundaries: referring to section C II – but mostly not sufficiently described in that section
(= general remark for all fall-back sub-installations)
- (b) Activity level HB sub-installation:
 - referring to section E II also in cases heat is consumed in more than one sub-installation
 - often not all heat losses are subtracted (cfr. heat balance)
 - (too) high efficiencies of net heat production (only burner efficiency)→ for this part: examples applying the described methodology are indispensable!!

Activity level FB sub-installation:

- 'fuel input' sometimes not corrected with the exported heat/0.9

Emissions per sub-installation for benchmark improvement rate

- Most difficult part of MMP; in general not well understood by operators switch in way of thinking seems difficult (data for the activity level vs. data for the relevant emissions)
- Examples applying the described methodology very often missing and/or incorrect
- HB sub-installations:
 - confusion between 'direct attributable emissions' and emissions from 'imported heat' in section (f)
 - section (f) 'Measurable heat imported': heat recovered from a FB sub-installation or from waste gas incineration must be added in section (f) ii 7. resp. 9.
 - the calculation of emission factors was often not clear to operators

Emissions per sub-installation for benchmark improvement rate

- FB sub-installations:
 - confusion about attributed emissions in case of heat recovered from a FB sub-installation
 - section (e) 'Measurable heat exported': often forgotten in this section

Conclusion

- Not yet the end of the story...
- In forward MMP's focus on
 - better description of the applied methodology
 - correct application of the hierarchical order of data sources, including evaluation of 'unreasonable cost' and resulting changes in the calculation of the activity levels
 - clear and complete procedures
 - clear and complete flow diagrams with split in sub-installations