

Air Monitoring Directive – Summary of Feedback and Responses for Chapter 2

January 31, 2014

The following feedback was received following the 60-day public review of the Air Monitoring Directive Chapter 2, June – July 2013. In many cases the content or concerns expressed in comments received were similar, and only one of the representative comments has been included for a reply.

Chapter 2 - Ambient Monitoring Program Planning			
#	Comment	Reply	Action Taken
1	<p>Does the AMD Chapter 2 Monitoring Plan and the requirements within replace or supersede the AMD 2006 section 2.9.52 on Sampling Plans and Procedures? How do the two directives fit together on this topic?</p> <p>The two standards appear to conflict. The 2006 clause refers to intermittent sampling projects and not the overall monitoring program. In which case the 2006 clause 2.9.52 would kick in and be referred to if an intermittent project was part of the monitoring plan.</p>	<p>Clarification on Chapter 2 (Ambient Monitoring Program Planning): this chapter requires that a monitoring plan be submitted by Alberta airsheds. Chapter 2 does not add any additional requirements to approval holders who do ambient monitoring as part of their approval requirements. Having a monitoring plan approved by the Department is inherently part of the current approval process, and this will not change. Airsheds who operate industrial compliance stations as part of their network will include those stations in the monitoring plan submitted to the Department. The 2006 clause on sampling plans gives the required elements for sampling plans/procedures for an environmental monitoring activity. This clause is recommended to be repealed from 2006 AMD.</p>	<p>Wording has been changed from “monitoring organization” to “Alberta airshed” to clarify that Chapter 2 applies only to airsheds, who are not currently required to submit monitoring plans for approval by the Department.</p>
2	<p>*** acknowledges that the document is very comprehensive, laid out in a logical manner and provides clear direction. To ensure that applicants for regulatory approvals understand that they may be applying for an approval within an established airshed zone with a functioning monitoring organization and system in place, *** suggests that AESRD assemble an information package to be given to each applicant along with his/her approval. In this way, new approval holders will become aware of the monitoring organization’s monitoring plan in place for the region in which they are locating. This package can provide information on the regional nature of the land-use planning, water management planning, and highlight specific regional air quality issues. For example, *** monitoring plan reflects the relative paucity of industrial approval holders in southern Alberta, while northern Alberta monitoring organizations are composed primarily of industrial approval holders. The information package might include the flow chart provided in the planning chapter along with information about the regional</p>	<p>Good suggestion.</p>	<p>ESRD will assess if and how to proceed with this.</p>

	monitoring organization and its website address.		
3	<p>Various comments about the need for submission of plans for compliance/industry run monitoring, such as the following:</p> <p>In section 1 of this document, perhaps it should be clarified to what AQM programs this applies. For example, an EPEA approval requirement to install 4 passive monitors around a small SAGD facility is fairly precise, which limits the need for certain sections of the monitoring plan...</p> <p>As a compliance monitoring network operator, many key aspects of the monitoring program are defined by the existing Approval and associated application: documenting the plan will provide clarity and capture historical information, but the planning document also implies that changes can result from the negotiation of the monitoring plan, which would require additional regulatory changes for an established network.</p>	See action taken regarding comment #1. Chapter 2 only applies to airsheds.	
4	<p>It is *** view that ESRD has the ultimate responsibility and accountability to ensure ambient air quality monitoring in Alberta is adequate. As such, the plan review and development process should be led by ESRD in all cases to ensure continuity and completeness across the province for monitoring. This accountability cannot be delegated.</p> <p>If monitoring organizations are required to revise plans every 5 years, then AESRD needs to ensure that monitoring organizations have the financial and human resources to do so</p>	The Department may provide assistance with technical and regulatory information as requested (see Section 2.0 of Ambient monitoring program planning)	No change made.
5	<p>Many systems have already been designed and are operating</p> <ul style="list-style-type: none"> o These systems should not be subject to this clause o There should be some wording around grandfathering current systems 	The Department recognizes there are many systems currently operating; however, a monitoring plan provides a transparent method of documenting the rationale and scientific basis for the monitoring program. See action taken regarding comment #1.	No change made.
6	Chapter 2 details requirements for monitoring plans and also discusses monitoring programs and reviews. Is the intent for the monitoring plan to be the same as the monitoring program or is the intent to have 2 separate documents.	The Monitoring Program plan is the documentation of the monitoring program. The plan is provides a full description of the monitoring programs in place or planned.	Definition provided in AMD Chapter 1: Introduction for ambient air monitoring program and ambient air monitoring plan.
7	consider adding a definition for monitoring network		Definition provided in AMD Chapter 1: Introduction.
8	<p>“compliance of December 1, 2014) This date may not be attainable depending on when the other Chapters of the AMD are released.</p> <p>If the deadline remains December 1, 2014, it is suggested that AER commit to</p>	<p>Noted.</p> <p>This timeline is draft. The date for attainment will be over one year from the time Chapter 2 is released.</p> <p>Other chapters of the AMD may not be complete and</p>	Date for implementation of Chapter 2 is January 21, 2015 (one year following release of the chapter).

	<p>dates for finalizing the remaining chapters of the AMD and consult with relevant stakeholders to ensure that there is a realistic timeline for monitoring organizations to implement the proposed changes.</p> <p>The draft AMD suggests that monitoring organizations must be in compliance with the AMD by December 1, 2014. However, compliance should be one year from when the Government adopts the actual AMD. As well, compliance is contingent on there being sufficient resources available to gather information, draft a plan and have it approved by all required parties. The December 1, 2014 compliance deadline is too short a timeline given that the AMD is lacking chapters 3-10, and there has been no firm commitment from the province as to when the AMD will be final and adopted. CRAZ suggests that the province consult with monitoring organizations to determine a realistic timeline as one size will not fit all given the specific issues each airshed zone has to address.</p>	<p>released by this time. The entire AMD is targeted to be complete by end of March 2014. The different chapters will have varying dates for implementation, depending of the amount of time required to put any new requirements into place.</p> <p>1989 and 2006 AMD requirements will remain in place until the new revised chapters are released.</p>	
9	<p>In addition to the specific suggestions above, it would be beneficial if the overall tone of the document were reconsidered. Currently, there is a very prescriptive, top-down approach – as opposed to a collaborative, grassroots approach, on which airsheds have typically been based.</p> <p>It needs to be explicitly noted as a plan requirement that the planning process is to be multi-stakeholder based. FAP is based on that principal, but for purpose of this document it shouldn't be assumed this is the case everywhere.</p> <p>However, some concern has been raised by *** stakeholders that the overall tone of this document is “unidirectional,” which reflects a top-down “command and control” approach to air quality monitoring and reporting</p>	<p>This chapter is describing the minimum information that must be submitted in the monitoring plan and related steps.</p> <p>Airsheds are free to use a collaborative approach in designing the monitoring network and associated documentation. The requirements in AMD do not dictate how airsheds should operate, only what is required to submit to the Department (data, reports, plans, etc.). This is done in a prescriptive manner to assure that there is consistency in reporting and data submittal, as well as data quality, so that the data and information submitted can be used for decision making.</p>	No change made.
10	<p>The issue of funding for improvements and capital expenditures seems to be avoided in this document. Cost effectiveness needs to be a major consideration of the plan development. Currently the ability to fund airshed improvements are limited. This will be a major barrier to implementing future improvements.</p>	<p>This document is not asking for improvements in the current programs, it is asking for documentation of the current programs and any changes in the future. Review of the plan is a requirement, improvements to the program are not. Documentation of any changes to plans or monitoring is a requirement of Chapter 2.</p>	No change made.
11	<p>Figure 1 “Plan approval” block should be inserted between “Develop or Revise Monitoring Plan” and “Implement Monitoring Plan”</p>	<p>Good suggestion.</p>	Figure revised.
12	<p>MP 1-B indicates that organizations must be in compliance on or before</p>	<p>Monitoring organizations (airsheds) will have to</p>	Date for implementation of Chapter 2 is

	December 1, 2014. Is it safe to assume that all ambient monitoring networks will need to submit a plan by this date?	submit their plans by the required date. The December 1, 2014 date was part of the draft and is subject to change. Likely will be one year following release of Chapter 2.	January 21, 2015 (one year following release of the chapter).
13	Overall, I see a few potential gaps in the application of the proposed changes to non-Airshed monitoring networks, but I also see the benefit of the content and direction of the changes and think it will be effective when clarity for how all monitoring organizations engage ESRD on network planning is provided.	Chapter 2 – the requirement for monitoring plans to be submitted to the Department - applies only to airsheds.	No change made.
14	Section 2.1 Clarify whether network design should also consider regional air quality concerns.	It is up to the persons designing the monitoring program to define the boundaries, and the plan should consider any air quality concerns within the monitoring program's defined boundary. This could include sources or concerns that are outside of the airshed's boundaries.	No change made.
15	Section 2.4 pg 4 Although the information needed to meet the monitoring program objectives is listed, there is no requirement to review the data periodically. Regular review of data would facilitate the evaluation of improvements that could be made to better achieve the objective(s) of the monitoring program.	Ambient air monitoring program review (Section 6.0) requires regular review of the monitoring programs. This may be initiated as a result of changes in ambient air quality (data).	No change made.
16	Section 2.0 and 3.0 Department staff may provide assistance with technical and regulatory information. This statement needs to be better clarified, what level of support would be provided, and by who, staff already involved with the airshed? In what timeframe would this information be provided? Airsheds may rely on Department assistance and if there aren't enough resources to assist all airsheds in the province in a timely manner, airsheds may be out of compliance with the AMD requirements.	At this time we cannot specify who would be providing support; however, this will likely include staff that are already engaged in airsheds. This would not change markedly from current practices. The major change is the need to submit a plan, keep it updated, and obtain Department approval.	No change made.
17	2.1 The four steps should start with step 4 as step 1, then step 1 as 2, then step 2 as 3, then step 3 as 4..Establishing boundaries where the monitoring plan will be implemented is crucial to establishing objectives to address the air quality issues specific to the geographic planning area. Any time 'area' is mentioned it should be 'bounded area' or geographically bounded area. 2.5 Should be moved up to become 2.2.	Note that Section 2.1 is guidance. It is providing steps in an order that is recommended. This is an iterative process and as it states any of the steps can be revisited as information is gathered.	No change made.
18	2.4 There is no objective/requirement for organizations to review/assess data and	Please refer to Section 6.0 Ambient Air Monitoring	No change made,

	use that information to evaluate what improvements or changes need to be made and feed those back into the objectives of the monitoring program. Maybe this is coming in a later chapter, but our concern is that data are collected and potentially only compared against the objectives every 5 years at the review period.	Program Review. This section indicates that the monitoring organization may review the program at any time (See MP6-A). Further chapters of the AMD will require data review and reporting at a set frequency. If the organization feels the data indicates there should be a change to their program, they should do this.	
19	MP 2-E The duration of a monitoring program might not be known at the time of program design as the duration might be dependent on monitoring results. As per Figure 1, the program needs to be reviewed every five years. Suggested wording: The monitoring organization shall identify the duration of the ambient air monitoring program, <i>if less than five years</i> .	Duration of a monitoring program may vary depending on the purpose and desired outcome of the program (e.g., passive monitoring may be planned for a defined period to determine spatial variability and later ceased, a mobile unit may be used in order find a site for a new monitoring station). This requires that the proposed duration be identified – this may include ongoing monitoring into the future.	Guidance added for MP 2-E.
20	Section 3.0. Wording of last paragraph on page 4 implies no plan is needed if a monitoring program is currently in place that meets its objectives and changes to it are planned.	The first paragraph of Section 3.0 will be clarified to include existing monitoring.	Changes made.
21	MP 3-A Requirements are too vague possible leading to unnecessary cost to develop the plan. Parameters need to be put around what is expected for each of these bullet points. For example what is meant by a description of receptors, is this a general description indicating what kind of receptors are in the airshed, or is this a comprehensive listing of all residences, population demographics, health care/day care facility capacities etc...and agricultural crop descriptions and inventories, livestock inventories and ecosystems in the airshed? In short please give an idea of the level of detail required here. Emissions sources: Please describe level of detail required. NPRI data acceptable alone or is more info needed. i.e. Full drill down to vehicle traffic counts, other transportation systems, inventory of residential heating sources, lawn mower sales, cigarette sales (you get the idea of the possibilities here).	The Appendix provides examples and further detail on the information listed in this clause.	Appendix updated to match clause 3-A. A Monitoring Plan Template will be added to the AMD website for airsheds to use if they choose.
22	3.0 Ambient Air Monitoring Plan Development <ul style="list-style-type: none"> • There is no provision for systems already in place in this section. • MP 3-A (h) should be removed from this section. Receptors may change frequently depending on a number of things. • MP 3-A (k) add to this clause as shown “contingency plans/risk management for ongoing operations of the monitoring program”. • MP 3-B states that the monitoring plan shall meet the requirements of 	The requirement is to list identified receptors and the plan must be reviewed every five years. See definition of Quality System in Chapter 1 (Introduction of the AMD).	MP 3A(k) was revised.

	the AMD and a “Quality System”. There is no definition of a Quality System. Consider providing some flexibility to permit monitoring organizations to transition to methodologies and networks prescribed by another agency. Another agency (e.g. JOSM, AEMERA) might specify requirements for Quality Systems and might specify site selection.	Currently the AMD is the policy that will instruct monitoring activities.	
23	4.0 Submission of Monitoring Plan or Revisions to the Monitoring Plan • MP 4-A states requirements for submission or resubmission of the Monitoring Plan. This includes (b) any changes to the existing monitoring network, note that monitoring network is not defined.	See comment #7.	No changes.
24	MP 4-A Item (a) in conflict with first paragraph of section 3.0.	See comment #20.	
25	MP 4-C Consider providing additional flexibility so that monitoring plans can be revised without 90 days’ notice if required. E.g. Substitution of one monitoring site for another if site access becomes unavailable without notice.	Good suggestion.	Revised MP 4-C.
26	5.0 Ambient Air Monitoring Plan Implementation • No provisions for plans already in place. Also there is no mention of the timing of the authorization.	This implementation could be implementation of a new plan or implementation of a revision to an existing plan. MP 4-C states that plans are submitted 90 days prior to implementation to allow for Department review and authorization. See comment #25.	No changes.
27	Section 5.0 pg 6 It is unclear what the value is in providing such frequent updates, particularly given the incremental costs associated with this requirement. The networks currently in existence provide reporting on an annual basis, which allows better understanding of seasonal effects and comparison with previous annual reports. XX feels that an annual update would be sufficient given these factors.	These updates are only for the implementation of a new or changes to an existing monitoring plan. Implementation timelines are included in the plan (MP 3A (j)) additional guidance is provided in the appendix. Status updates every 6 months ensure implementation is proceeding as per the plan.	No changes.
28	MP 5-D and 5-E This unprecedented involvement by the regulator will require ample resources, and it may put a strain on the ability of AER to provide timely feedback. It is concerning that this may delay implementation timelines for air monitoring programs. In order to mitigate this risk, AER should ensure adequate resourcing before implementing these changes.	See comment #1.	This chapter only applies to airsheds. No changes.
29	MP 5-E Provide a definition of “milestone” or delete the reference to “milestone”. (The information requested should be pertinent to implementation progress. If milestones have been identified in the plan, then the request could be specific to those milestones.)	Good suggestion.	Revised MP 5-E.
30	6.0 Ambient Air Monitoring Program Review • The second bullet in this section needs clarification, it states a review may be	This is guidance and not a requirement.	No change.

	needed if there is any change to monitoring technology (among other things), it should be clarified if this includes monitoring equipment upgrades. Monitoring equipment upgrades should not trigger a program review.		
31	6.0 page 7. The Monitoring organization must periodically review the monitoring programs. Add: “It has caused to operate and/or has control over” (something to delineate which programs in case jurisdictions change, networks change hands etc.)	This is now covered in the definition of “Alberta airshed”.	See action taken for comment #1.
32	Section 6 Event-driven program reviews should be required only for very significant changes. The second bullet under Section 6 heading does not speak to the depth of review, rather to review frequency.	The introductory text to section 6 indicates “ <i>The depth of the review will depend on the extent of changes required to the existing monitoring program</i> ”.	No change.
33	MP 6-A and B references reviews of the program. Please clarify if there is no change required the program and plan do not have to be re-approved by the director.	This is identified in bullet three of the opening paragraph of Section 6.0.	No change.
34	MP6-A: *** needs clarity as to when the five year period for revising the plan begins: is it at the end of fifth year, that revisions are to commence, or at the beginning of the fifth year? This has caused some confusion in other agencies with five year mandatory reporting periods. If the revisions commence at the end of the five year period, then the revised plan will likely not be completed at least 1 year after commencement. *** suggests that the province clarify that a monitoring organization has 1 year from the date of commencement of a revised plan to complete the document and submit to the government.	Five year review will be conducted at the end of 5 years following the completion of implementation.	Guidance added.
35	MP 6 – D revision of the program. There must be some method or ability to challenge the recommendations of the review if the recommendations are not appropriate. Provisions should be made if the review findings do not warrant a change to the monitoring plan. Is Director approval required to implement the amended monitoring plan?	See also comment #33. Yes director approval is required to implement changes to a monitoring plan (MP 5-A).	No change.
36	MP 6-B does a “monitoring review expert” require definition? It might be helpful to ensure that the appropriate experts are engaged that satisfy ESRD, especially if ESRD is not represented on the “monitoring organization” (see comment on definition 51 above). Section 6.0 pg 7 The term “monitoring review expert” should be explicitly defined such that the expert does not necessarily have to be a representative from the Government or a third party. Most monitoring organizations in Alberta have	ESRD may be consulted (even if not represented on the “Alberta airshed” with respect to the monitoring review expert. The text being referred, “Government or a third party”, is provided as guidance.	No change.

	multi-stakeholder technical committees (including government representatives). Members of these committees have extensive experience in ambient air monitoring, and they should satisfy the “monitoring review expert” definition.		
37	<p>Page 8, Section 6.0 Review of monitoring program operations examines the business of running monitoring program(s) and should include review of resource efficiency and effectiveness, and evaluation of performance measures and business plans.</p> <p>Examples are required of how to review resource efficiency and effectiveness.</p>	This is routine business evaluation and provided as guidance.	No change.
38	<p>Appendix - Information to be Included in the Ambient Air Monitoring Plan</p> <ul style="list-style-type: none"> ○ 5. b) – historical data – should say how much historical data ○ 7. a) – List of <i>all</i> emission sources – add in <i>all known</i> (another suggestion “<i>relevant emission sources</i>”) ○ 10. This chapter should be specific to new installations only ○ 12. b) Contingency plan if monitoring period requirements are not met – what is the intent? It is unclear as how this might be applied. 	<p>Time lines apply to new and revised plans</p> <p>The intent of a contingency plan is to ensure minimal disruption in monitoring</p>	Appendix 7a was revised.

Rescinded