

Draft Directive 039 (released December 2017)

Stakeholder Feedback and AER Response



Stakeholder Feedback – Issue	Stakeholder	AER Response
<p>Appendix 3, Page 27</p> <p>Under introduction there is a “must” statement for competencies in the introduction paragraph. Consider revising this to a “should” or “recommend” statement: i.e. “The licensee appointed person or persons must should have an adequate combination of education, knowledge, experience, and communication and teamwork skills to complete the Directive 039 program.” The Introduction Appendices section (page 4) states that Appendix 3 outlines “considerations” for appointing a qualified person, which does not suggest a requirement. A “must” statement in Appendix 3 suggests that it is required; therefore, inconsistent language here.</p>		
	CAPP	Reworded for clarity
<p>Section 2.2 (3) a) Page 6</p> <p>Does this apply to seasonal dehydrators? i.e. “Notification must be done in person with a resident at each location within 60 days after initial start-up of the dehydrator, after a change in status of the dehydrator to operating...” Recommend that it does not apply to seasonal dehydrators and that the text clearly states as such.</p>		
	CAPP	Appendix 1 provides a definition for "operating" that would include seasonal dehydrators in the "operating" status all year, and as such, additional notification would not be required.
<p>Section 2.1 (1) Page 5</p> <p>The licensee must determine the shortest distance from the dehydrator emission source to the 1) nearest surface development that is within 1,500 meters (m). This is changing the required distance to double, which increases the area of work to measure the exact distance by four times for every new/change in residences. Given the amount of additional work required, is this necessary? If it is concluded the requirement to determine the shortest distance to the nearest surface development will remain at 1,500 m, how soon after issuance of the new D039 will we have to provide the distance? Recording the exact distance up to 1,500m does not change the requirements beyond 750m. Recommend the threshold requirement for noting exact distances to the nearest surface development be reduced to 750m. The draft already states “a high level of accuracy is required when determining the location of a surface development”. A determined distance of 751m up to 1,499m results in the same outcome as >750m; therefore, should not be a requirement to specify up to such a large additional area. Provide an effective date if the distance requirement remains at 1,500 m.</p>		
	CAPP	The requirement is only to measure the distance to the nearest surface development reaching out to 1500 m. Other requirements, such as notification, are not affected by this distance. Previously, many industry parties have had difficulty clearly identifying public ≤ 750 m and therefore emissions limits have been compromised in situations where public are close to a dehydrator emissions source. By increasing the distance beyond 750 m, the likelihood of industry missing a close proximity surface development is eliminated. The AER focus is to ensure emissions limits and exposure for the public are being managed. The 1500 m measure will be effective with the documentation/reporting requirement

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Section 2.1 (1) Page 5	CAPP	to meet the new DEOS and inventory reporting format as outlined in section 5.
<p>“The 1,500 m enables quick reference, on site or with aerial photos, by section, range, and township roads, which are about 1.6 kilometers (km) apart” What does this mean? Provide clarification or remove this sentence if no longer needed.</p>	CAPP	The visual cue of section or township roads can be useful in quickly estimating whether the public is ≤ 750 m from the dehydrator emission source. It is information only.
Section 5.2 (44) Page 16 (and throughout the draft)	CAPP	Directive section 5.2 (44) has been updated to read "Normal operating condition" subject to the appendix 1 definition of normal operating conditions. Added a statement behind requirement #44: "Daily fluctuation should be accounted for within the normal operating conditions and as such do not require a DEOS update."
<p>Does any “change” as noted in this bullet require a DEOS revision? i.e. Change in operating conditions (change in throughput gas composition, pressure, temperature) is constantly variable throughout operations. Revise text throughout regulation to include “significant” change and refer to the definition of a significant change as outlined in (pg. 22) Appendix 2, bullet 57) a) or add such definition to (pg. 19) Appendix 1. Definitions to remain consistent.</p>	CAPP	Directive section 5.2 (44) has been updated to read "Normal operating condition" subject to the appendix 1 definition of normal operating conditions. Added a statement behind requirement #44: "Daily fluctuation should be accounted for within the normal operating conditions and as such do not require a DEOS update."
Section 5.3 (56) Page 18	CAPP	Methane from dehydrators will only be required to be reported once, and this will be under the <i>Directive 039</i> inventory. The values to be reported are generated through the same process used to estimate and report benzene; therefore it will only have to be derived and recorded once.
<p>This section states that compliance for methane emissions will be addressed under a separate AER regulatory tool. Therefore, industry will be reporting this value twice which is a redundant effort. Recommend that methane emissions be left to the separate AER regulation and not be a mandatory requirement of the annual D039 report.</p>	CAPP	Methane from dehydrators will only be required to be reported once, and this will be under the <i>Directive 039</i> inventory. The values to be reported are generated through the same process used to estimate and report benzene; therefore it will only have to be derived and recorded once.
Appendix 2 (59) a) b) Page 23	CAPP	(58) wording changed to bring clarity to the emissions adjustments: after-control emissions are to be adjusted upward where the mass balance is $\geq \pm 20\%$.
<p>There is an informational gap between bullet a) and b) on what is expected for a threshold difference between 10% and 20%. Please provide additional information to specify what is required between 10% and 20% and where any adjustments should be made (i.e. to benzene emission at tank vent). Recommend providing an example calculation with numbers for clarity.</p>	CAPP	(58) wording changed to bring clarity to the emissions adjustments: after-control emissions are to be adjusted upward where the mass balance is $\geq \pm 20\%$.

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<p>Section 4.1 (31) Page 13</p> <p>Leniency for test delays due to unforeseen circumstance (i.e. weather). Would an additional 2 weeks notice be required for short delays in testing, or would an update to AER be sufficient? Recommend adding a comment around renotification for any unexpected delays less than 2 weeks before testing, in addition to the 2 week notification. (i.e. notify AER 2 weeks prior to expected test date, re-notify AER of any schedule adjustments prior to testing date but does not require additional 2 weeks wait for testing). Weather is unpredictable 2 weeks out and the 15 degree C testing requirement is very stringent.</p>	CAPP	<p>The AER requires information to ensure that the testing location and date are known in advance. Minor test-plan changes that occur due to unforeseen circumstances, such as facility upset or weather, need to be communicated to the AER as soon as possible. Details were added to item 31 for clarity regarding sending an update for unexpected changes.</p>
<p>Section 3.3 (10) Page 8</p> <p>Emission limits in Table 1 are all referred to in tonnes per calendar year. Recommend omitting daily limit calculations in both the regulation and the annual inventory to maintain annual emission limit to allow operators leniency to install mitigation in the event of operational changes that may occur to ensure cumulative annual emission limits are consistently met. This method will also allow a clear boundary for enforcement.</p>	CAPP	<p>Emission limits and evaluation for compliance is assessed as a mass released to the atmosphere in one calendar year. Prorating the emissions is based on the portion of the year the dehydrator was operating as a dehydrator to ensure the dehydrator is not operating at very high rates part of the year and then tuned off to avoid noncompliance. This could unnecessarily expose the public to high emissions in a short window of time. Operators should manage emissions with enough room to allow for operational variance while still remaining in compliance.</p>
<p>Section 2.2 (3) a) Page 6</p> <p>This section mentions several new requirements in addition to notifying within 60 days of starting up. For example, the requirement to notify within 12 months of a new development being occupied will be a challenge to stay ahead of. All other notification regulation is a one-time event and doesn't continue throughout the lifetime of the equipment. Ensuring industry understands the reasoning behind this. Is the idea to make this similar to an ERP for a sour facility that has to be managed and kept up-to-date?</p>	CAPP	<p>Section 2 represents the notification process as it was established and managed for the duration of the benzene emissions management program. The addition of the 60-day requirement is to address questions from industry on timing for a notification and to maintain consistency across industry. The 12-month notification timeline is an existing requirement as published in the 2007 FAQ, item # 12.</p>

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<p>Section 2.2(3) Page 6</p> <p>There is a new requirement to notify when a dehydrator is transferred from one licensee to another. It is unclear which licensee (previous or new) is responsible for this. I assume it is the new licensee. Add verbiage to 2.2 3) a) to clarify: Within 60 days of the transfer of the property with the dehydrator to another licensee, the new licensee must re-notify using their company specific documentation.</p>	CAPP	<p>Item 3 refers to responsibilities of the licensee. This was previously covered in the CAPP 2006 Best Management Practice for public consultation as adopted in this draft directive. When a company purchases a site with a dehydrator, the notification contact information would be obsolete and require updating. Section 2.2(3) states it is the responsibility of the licensee; as such, the responsibility falls to the current licensee after a purchase.</p>
<p>Section 3.1 (8) Page 7</p> <p>Mentions that the qualified person must sign off on the accuracy of data and validity of work done. Where exactly is this signature? Is it just on the inventory form? Having the qualified person and the responsible person sign-off on the annual inventory should be adequate. Sign-off on every TCT and DEOS will not be practical.</p>	CAPP	<p>See section 5 where the duties of the qualified person and person responsible are outlined. The AER is prescribing a level of responsibility to increase the accuracy in reporting to the AER with the DEOS and inventory forms. All data and calculations associated with estimation of benzene emissions (and the DEOS) must be reviewed by a qualified person. Signoff by the qualified person is on the DEOS form. The inventory signoff is an acknowledging statement on the inventory form. Refer to section 5 for more information.</p>
<p>Section 3.1 (5) Page 7</p> <p>It is not clear on the expectations of the notification to the AER. Provide clear guidance on how AER would like industry to report the noncompliance activity for this directive.</p>	CAPP	<p>Noncompliance events will be reported to the BenzeneD39@aer.ca email address. Revision to the directive has been made.</p>

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<p>Section 3.4 (11) Page 9</p> <p>The wording of this section would lead one to ask how am I going to measure and report on tank vapors etc. in order to determine if facilities meet this requirement or not. From previous BTAT meetings it was CAPP members’ understanding that this is not the intent and that this section is only a tool that would be used in the scenario where a site is identified as having odorous vapors that need to be managed. Add a sentence or two to clarify the expectations for industry. This could be added to the end of point 11 and say something to the effect of: The intent of this section is not to enforce the measurement and reporting of cumulative emissions for all facilities but to provide a tool to be utilized by industry and the regulator to address sites where the cumulative emissions are of concern and must be addressed using a systematic approach.</p>	CAPP	<p>Section 3.4 applies to all AER-regulated sites. Currently, we do not require licensees to report all benzene release sources for site emissions. Dehydrators are known to be the single largest contributors to benzene emissions in upstream oil and gas operations, and as such it is anticipated that the dehydrator requirements are in most cases adequate to manage exposure to the public under <i>Directive 039</i>. Licensees should be aware of other benzene emission sources on their sites and manage them appropriately. All source-site emissions limits are being retained for use in the case where there may be benzene-related concerns such as odour, and where there may be a need to investigate benzene emissions sources other than glycol dehydrators.</p>
<p>Section 4.1 (17) (21) (23) Page 11</p> <p>For height requirements, are we talking height from the ground or the height of just the stack itself?</p>	CAPP	<p>Stack heights are measured from the ground to the stack top. This clarification has been added to the directive.</p>
<p>Section 4.2 Page 13</p> <p>As per items on page 13, do we need to test our still column emissions? Please clarify</p>	CAPP	<p>Section 4.2 does not prescribe still column vent testing. This section is to provide guidance and requirements around new technologies or alternative control efficiencies described in section 16.</p>
<p>Section 4.2 (33) Page 13</p> <p>If a letter notification is sent two weeks prior to the TCT (as directed in point 31) is it realistic that we will receive written confirmation from the AER prior to conducting the test? We just want to make sure that the timelines are reasonable for all parties Adjust timelines if it is determined the timelines aren’t reasonable or provide further clarification if we have misinterpreted the intent of the directive.</p>	CAPP	<p>Notification requirement for section 4.2 (33) does not require the company to receive confirmation from the AER to proceed with test plans.</p>

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<p>Appendix 2 (61) Page 24 TCT testing of upstream and downstream testing of condenser unit. Are companies required to undertake TCT testing of upstream and downstream testing of condenser unit if product is managed through an appropriate destruction combustion technology (i.e. Flare or incinerator)?</p>	CAPP	Testing of the condenser tank is only required when the licensee intends to claim a benzene control efficiency greater than zero per cent for that condenser unit regardless of the final disposition of the vapours.
<p>Appendix 1, Pages 19 and 21 Surface Development meaning for “Camp” needs to be clarified to refer to only sites that involve the public. Surface Development meaning for a Camp excludes O&G sites used to support operational purposes (whether camp is producer owned or a service). Definition should be consistent between different AER directive (Directive 71)</p>	CAPP	The requirements are specifically intended to include work camps as a close proximity surface development. Work camps are public locations. Members of the public such as camp staff, visitors, etc. as well as off-duty oilfield workers can be found at work camps. The definition is to clarify for the purposes of <i>D039</i> and applies to benzene emissions management.
<p>Appendix 1 Pages 19 and 21 Close proximity development states “place of work” does that include admin building, office and control room. Clarification should be made as to, if any activities required to support operations should be excluded.</p>	CAPP	Close proximity development as defined in appendix 1 excludes a neighbouring oil and gas production site. This exclusion applies to buildings on the production site that are not part of a work camp.
<p>Section 2.2 (3) a) Page 6 The proposed text requires notification to be conducted “face to face” with residents. Method of public notification should be kept flexible and the requirement for face to face engagement be removed as many residents often prefer engagement by mail rather than via face to face meetings. In addition, if there is more than one operator in the area with dehydrators, the resident may be receiving multiple in-person notifications, which may become more burdensome to them than informative.</p>	CAPP	Notification has always been face to face. It is a one-time notification for an operating dehydrator for each close proximity development (except for new residents or licence transfers). Method of notification is out of scope and is reflective of the previous requirements. The purpose of notification is for the public to know about dehydrators in their area.

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<p>Section 2.2 (3) a) Page 6 The proposed text states that cases where face to face notification cannot be conducted directly, the licensee is permitted to deliver an information package. Clarification requested for what the circumstances would need to be to notify a person via an information package rather than in person (i.e., if you have tried to speak with the person 2 times without acknowledgement, or if they have given written authorization not to be contacted in person).</p>	CAPP	Industry is asked to exercise good judgement and ensure best efforts are made to connect with individuals before delivering an information package. Alternative arrangements can be discussed with the appropriate field office and documented to verify acceptance by the AER.
<p>Section 4.1 (36) Page 14 The formula in this section for Benzene Control Efficiency includes a definition for variable “B” that mentions “supporting documentation” is needed to define this parameter. Examples of what supporting documentation the AER is requesting would be valuable to include.</p>	CAPP	Data requirements depend on the type of operating equipment and what appropriate factors would support the values used in the calculation. We recommend a licensee capture the information that would be used to justify the alternative and prove defensible for the equipment operating parameters in question; e.g., daily logs or other records data may be appropriate in some situations, and monthly readings may be adequate in another situation.
<p>Section 5.2 (45) Page 16 The proposed requirements contain a provision whereby an alternative extended gas analysis schedule is possible, however not much additional detail is provided. Provide clarity for what the approach would be for obtaining permission to use an alternative extended gas analysis (i.e., what information would be required, timeline for gaining approval, submission request process).</p>	CAPP	Reworded for clarity
<p>Section 3.4 (11) Page 3 “and table 2 of Directive 060, section 8.3” Is this a typo? In the current Directive 60 table 2 is in Section 3.8.</p>	CAPP	Corrected
<p>Section 4.1 (21) Page 11 “Subject to item 21” Correct the item being referred.</p>	CAPP	Corrected
<p>Typing of “per cent” Should it be “per cent” or “percent”? Currently this is presented in both manners throughout the document.</p>	CAPP	Corrected

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<p>Section 4 Page 11 Clause 21) Clause 21) opens with “Subject to item 21 and in addition to...”; this clause appears to refer to itself. Consult with the original writer to determine which clause or item number this is subject to. The subject item or clause is not obvious to this reviewer. To this reviewer the opening phrase of the clause makes no sense.</p>	Hans Kolb, Total Combustion Inc.	Corrected
<p>Section 4 Page 11 Clause 21) Clause 21) requires an incinerator to be at least 9 m tall. However, clause 23) requires an exhaust stack height of only 6 m for a reciprocating engine. Given that clause 15) implies that an incinerator is a more efficient control device, (95% vs. 90%) it is hard to understand why the incinerator would require a much taller exhaust stack. This reviewer sees two possible solutions: 1. Change clause 21) to require incinerators to be 6 m tall, to match reciprocating engines in clause 23, or 2. Remove the minimum height requirements from both clauses 21) and 23), and replace them with a statement requiring sufficient height to achieve adequate exhaust flue gas dispersion to achieve Environment Alberta’s Ambient Air Quality Objectives (AAAQO) for Benzene. The primary purpose of stack height on an incinerator or reciprocating engine exhaust is to ensure adequate dispersion of chemicals in the exhaust flue gas stream, presumably in this case unburnt benzene. Since an incinerator is a more efficient benzene control device than a reciprocating engine it makes no sense to this reviewer that the incinerator needs a much taller stack. Environment Alberta has already determined acceptable levels of benzene, and other chemicals, in ambient air via AAAQO. It therefore makes sense to use these in conjunction with exhaust flue gas dispersion modeling to determine adequate stack heights. This would also bring these faculties in line with other benzene emitters in Alberta.</p>	Hans Kolb, Total Combustion Inc.	<p>Combustion efficiency and emission dispersion are separate issues. Each combustion technology has heat and residence time to convert benzene. Dispersion of the vapours from the stack is determined independently. Dispersion modelling completed to date shows that the incinerator and reciprocating engine exhaust vapours do not behave in the same manner. Due to the lower exit velocity and larger diameter that result in stack-tip downwash effects, incinerator stacks need to be taller than the reciprocating engine stacks to achieve desired dispersion of the combustion vapours. AER benzene emission limits are designed to ensure the AAAQO are not exceeded in the case where multiple dehydrators are located on adjacent sites but are not subject to the single site limit such as when owned by different licensees and a cumulative effect could be realized.</p>
<p>Based upon our review, we have noticed that the definition of "Surface Development" in Draft Directive 39 is different from AER Directive 71. In our opinion, this may create inconsistency and cause confusion from a Regulatory perspective. We strongly recommend that same definitions should be used within various AER Directives.</p>	Surbhi Bhargava, Keyera	<p>Each directive provides definitions based on the business need of the operations being addressed. For example, the definition in <i>D071</i> refers to an EPZ, which is not relevant to <i>D039</i> and so is not appropriate.</p>

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Please clarify whether a Worker's Camp that supports the Operation of a Facility would be considered "Close proximity development" as defined in Appendix 1 Definitions. Similarly, whether an Admin Building, Office or Control Room would be considered "Close proximity development"(place of work).	Surbhi Bhargava, Keyera	A camp would be considered a close proximity development with public receptors. Buildings associated with the oil and gas production operations site workplace are excluded.
Section 1.2 Page 3 Section 3 clarification re 3.4 (11) is confusing. It appears to reference Table 2 of Directive 060 which was likely not the intent. Change to “3.4 (11) Table 2. Directive 060 Section 8.3 Table 4 is moved into Directive 039 ...	James Holoboff, Process Ecology Inc.	Reworded for clarity
Section 2.1 Page 5 Is it acceptable to use current high quality imagery to determine distances to residences? Clarify if it is acceptable to use current high quality imagery. It may be useful to provide guidelines regarding acceptable determination of distance to resident.	James Holoboff, Process Ecology Inc.	Companies can use the method they see as appropriate (including high definition aerial imagery). The result of the distance determination technique used should match the risk (e.g., differentiating between 245 m and 255 m should use a more precise measurement than if the distance was estimated at 1350–1400 m).
Section 3.1 (5) Page 7 This item seems to imply that the dehydrator must be shut-in if an over-the-limit calculation is completed. Also “compliance” is vague here, since with an annual emission limit, a unit could be temporarily “over-the-limit” but would ultimately be under the annual limit by making corrections in a timely manner. Recommend specifying that there is a period where the operator would work with the AER to get the unit back into compliance.	James Holoboff, Process Ecology Inc.	Section 3.1 item (5) requires that immediate action be taken to correct emissions exceedances. Corrective actions can include reducing the glycol circulation rate, decreasing throughput, shutting the dehydrator in, etc. Emission limits are and have always been assessed based on actual tonnes emitted in a calendar year. If the limit (tonnes of benzene emitted) is exceeded part way through the year, the noncompliance would be required to be reported to the AER immediately. The AER requires immediate action to bring a dehydrator into compliance and to assess the action based on risk factors such as proximity to the public.

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<p>Section 3.4 (11) Page 9 The requirements of this section are vague. What is the expectation for the typical site-wide calculation? Will operators need to review the PFDs and/or P&IDs, and expand the model to include other emissions, which could include tanks, amine regeneration, etc.? Is this intended to include facilities which do not have dehydration and refrigeration units? It would be helpful if the AER would provide an example of a typical site-wide analysis. Also more clarification would be helpful regarding the types of facilities that this is intended to apply to (just those facilities with dehydration and refrigeration units, or all facilities?)</p>	James Holoboff, Process Ecology Inc.	Section 3.4 applies to all AER-regulated sites. Currently, we do not require licensees to report all source-site emissions. Dehydrators are known to be the single largest contributors to benzene emissions in upstream oil and gas operations, and as such it is anticipated that the dehydrator requirements are in most cases adequate to manage exposure to the public under <i>Directive 039</i> . Licensees should be aware of other benzene emission sources on their sites and manage them appropriately. All source-site emissions limits are being retained for use in the case where there may be benzene-related concerns such as odour and where there may be a need to investigate benzene emissions sources other than glycol dehydrators.
<p>Section 4.1 (20) Page 11 What exactly does “managed” mean? Does this mean liquids should be trucked out on a “regular basis”? Some clarification regarding the term “managed” would be helpful</p>	James Holoboff, Process Ecology Inc.	Reworded for clarity
<p>Section 4.1 (21) Page 11 This section references itself – “Subject to item 21”. Correct the reference</p>	James Holoboff, Process Ecology Inc.	Corrected
<p>Section 4.1 (24) Page 12 How is a company required to determine it is “a closed system”? If liquids are collected and sent to a tank, does this fall under the definition of “site-wide emissions” (Section 11), intended to apply in 2020? For the purposes of Directive 39, it may be better to remove the vague terminology “closed system”, leaving the second paragraph indicating clearly when the VRU cannot be claimed as a control.</p>	James Holoboff, Process Ecology Inc.	Reworded for clarity.

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<p>Section 5.2 (44) Page 16 Must the shut-in DEOS be updated every year if nothing has changed? I believe this is not required, but it should be clarified. That is, the shut-in DEOS does not need to be reprinted/updated every year. Rather, this could be a recommended practice (rather than a requirement) since non-operating units should be reviewed on an ongoing basis to ensure there has been no change of status, and re-generating and re-posting the DEOS is one way of ensuring that this check is completed.</p>	<p>James Holoboff, Process Ecology Inc.</p>	<p>Refer to requirement 47 in the directive. The requirement does not include a need for an annual update to the DEOS for a not-operating dehydrator.</p>
<p>Section 5.2 (44)(45) Page 16 Definition of “change” is vague. Operating conditions are constantly changing. Appendix 2 (57) offers a definition of “change” which would be useful here.</p>	<p>James Holoboff, Process Ecology Inc.</p>	<p>Directive section 5.2 (44) has been updated to read "Normal operating condition," subject to the appendix 1 definition of normal operating conditions. Added a statement behind requirement 44: "Daily fluctuation should be accounted for within the normal operating conditions and as such do not require a DEOS update."</p>
<p>Section 5.2 (52) Page 17 Is it necessary to generate a DEOS for a de-commissioned unit? It is clear that a de-commissioned dehydrator must be on the inventory list in one year, and then can be removed. Clarify if it is also necessary to generate one DEOS for a de-commissioned unit.</p>	<p>James Holoboff, Process Ecology Inc.</p>	<p>Updating and posting the DEOS on site for a decommissioned dehydrator is useful to AER field inspectors for identifying a decommissioned dehydrator from a shut-in unit or seasonal operating unit, etc., but it is not required. A company could simply overwrite the existing DEOS with a date and the phrase, "Decommissioned on __date__" with a marker if they wanted to, or alternatively, the company could remove the DEOS.</p>
<p>Appendix 2 (59) Page 23 It is not clear if adjustment is required between 10 and 20% threshold. Since adjustment is needed on imbalances of more than +/-20%, recommend that it be clarified that no adjustment is required for a balance error between 10 and 20%. That is, no adjustment is needed, although it is understood that when there is an imbalance >20% it would be adjusted to the <10% sampling difference threshold.</p>	<p>James Holoboff, Process Ecology Inc.</p>	<p>(59) wording changed to clarify the emissions adjustments: after-control emissions are to be adjusted upward where the mass balance is \geq +/-20%.</p>
<p>Appendix 3 Page 72 Can the "qualified person" be a 3rd party representative? Some smaller companies may not have a person which fits this definition. It would be helpful to clarify whether the qualified person must be a licensee representative and/or whether a third party could be the “qualified person”.</p>		

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	James Holoboff, Process Ecology Inc.	Each licensee is responsible for the work completed under <i>Directive 039</i> . As such, the licensee must appoint a person or persons to complete the work under <i>Directive 039</i> . This person may be a third-party representative or a staff member. Reworded to clarify.
Section 5.2 DEOS Graphs.		
Concerned that graphing the “Before Control” emissions could significantly skew the graph in some cases and make the Benzene Limit and the “After Control” emissions on the graph hard to read for the Operators. Unsure of the purpose of displaying the Before Control benzene emissions on the DEOS. The overall intent is to help the Operators operate the glycol dehydrator in a manner to keep the After Control emissions below the benzene limit. The Operators cannot do anything regarding the “Before Control” emissions, so it may be better to only indicate the After Control emissions on the DEOS so that the scale on the graph adjusts and becomes more legible to observe the benzene limit for the dehydrator relative to the After Control emissions. For example, if the before control emission is calculated to be 20 tonnes before it is controlled by a flare, and the After Control emission is 2 tonnes (90%), the scale on the right side of the graph will be skewed to show the 20 tonnes “before control” value. The 3 tonne benzene limit and the After Control graph line will be compressed at the very bottom of graph which may make it difficult to read for the Operator.		
	Ted Hart, Envirosoft Corporation	Scale the graphs to best fit the data and represent the operating conditions. The graph is intended to illustrate the normal operating range of emissions without a functioning control. The worst-case scenario (before control) is displayed for the inspector and staff to ensure the messaging is clear that emissions limits are not exceeded even in the event that the control is not operational.
Section 4 (16) Page 3		
90% Burner Efficiency rating Implement 95% Rating, Set rating at 95% as an implemented standard. Past ratings set at 95% with testing results at 99.9%		
	Eleanor Vokes and Heine Westergaard, Kenilworth Combustion	The 90 per cent is a generic benzene conversion number for an engineered burner for benzene gas. It does not relate to any one company or technology and permits the use of an appropriately engineered reboiler burner without additional testing. Higher efficiencies must be demonstrated with valid testing in accordance with section 4.2.
Section 4.2 Page13		
Testing Protocol Implement standard testing guidance baseline and requirements utilizing Method 18 as the base This would ensure a common starting point and testing data therefore covering all testing requirements up front.		
	Eleanor Vokes	Section 4 addresses new technology or alternative testing, so it is open to accommodate current technologies and future technologies that may arise and where method 18 may not be appropriate.
Section 4.36 Page 14		
Efficiency calculations on down time Eliminate cycling as a source of emissions The typical systems that I am familiar with does not have operational down time. The unit goes to low fire to continually utilize the BTEX fuel stream only. In the rare event of an off cycle that would last less than 2 minutes the tank will act as a short term gas storage operating between 2 oz. (Tank make up)and the PVRV 15 oz. (Tank Pressure relief)		

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	Eleanor Vokes and Heine Westergaard, Kenilworth Combustion	Reworded for clarity
<p>Section 4.38 Page 14 Transfer of efficiency ratings, testing data and AER letter of confirmation on equipment ratings to the new licensee on property transfers. Add requirement to directive Eliminate confusion and confirm ratings of reduction equipment for current licensee to include test data, operation parameters and letter of efficiency confirmation from the AER.</p>		
	Eleanor Vokes and Heine Westergaard, Kenilworth Combustion	Each licensee is responsible for the emissions estimation based on the controls being used. When a licence is transferred, the new licensee must ensure the assumptions and data used are current and valid for the operations under their control. Requirement 51 in the directive states that the purchasing licensee and the selling licensee are both responsible for ensuring that necessary information for compliance reporting is obtained and provided, respectively, upon transfer of a licence for a site with a dehydrator. This includes all information used to claim control efficiency.
<p>Section 4 Page 13 The licensee must submit notification of a proposed TCT (and subsequent amendments for testing dates and plans) by email to BenzeneD39@aer.ca at least two weeks before on-site testing is expected to occur. Notification must include the test dates, AER licence number, location (legal subdivision), and licensee contact information, including the name, email, and telephone number of the company representative. Considering dehydrator’s normal operating conditions do not change significantly, usually TCTs are completed as a one time test and can be adequate for several years (up to five years). In this scenario, from second year (after first year of TCT) existing DEOS are updated based on yearly operational data, extended gas analysis and glycol water content results. Please clarify if two weeks notification to AER (BenzeneD39@aer.ca) will be required for gas and glycol sampling and testing? And when no TCT are conducted (e.g. condenser with VRU unit and closed system)? Current statement may be interpreted as, any time gas and glycol samples are collected for the purpose of annual update of DEOS than two weeks notifications to AER (BenzeneD39@aer.ca) will be required. Even though no TCT is conducted. Additional clarification will be helpful, whether the notification to AER applicable for TCT related activities only?</p>		
	Mohammad Rahman, Shell	Notification is only required for condenser TCT work. Other sampling and updates for the DEOS do not require notification.