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# AMD Reporting Forms Change Log

### Effective October 20, 2023

| Form Excel Form Changes |                           | Excel Form Changes  | XML Schema Changes   |
|-------------------------|---------------------------|---|--|
| AMD1                    | Approval<br>Contravention | <ul> <li>Updated form to allow alphanumeric entries into the Incident<br/>Reference # field.</li> </ul> | Updated embedded .XSD file to correspond to allowable alphanumeric Incident Reference # entries. |
|                         |                           | (Updated form version to 3.3)   | (Updated data dictionary to version 1.8)   |

#### Effective February 17, 2023

| Form            | Excel Form Changes   | XML Schema Changes |
|-----------------|--|--------------------|
| AMD10 S-30 Form | <ul> <li>Updated instructions tab to clarify which facilities are required to submit form AMD10.</li> <li>Updated example.</li> <li>Updated input validation of Monthly Measurement Percent Difference.</li> <li>(Version number remains 4.0; update denoted "rev b" in date)</li> </ul> | No Changes.        |

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### Effective February 3, 2023

| Form                                     | Excel Form Changes  | XML Schema Changes   |
|--|---|--|
| AMD6 Flare Stack                         | • Form repealed and no longer required beginning February 3, 202  | 3  |
| AMD10 S-30 Form                          | <ul> <li>Removed Monthly-2 (Quarterly ONLY) and Monthly-3 (Quarterly ONLY) tabs.</li> <li>Removed Emission Monitor Down (hours) field.</li> <li>Added Sulphur Production (t) and Incineration / Burned as Fuel Sulphur Emissions (t) columns.</li> <li>(Updated form version to 4.0)</li> </ul> | <ul> <li>Updates to match form changes, including updates to instructions.</li> <li>Updated embedded .XSD file.</li> <li>(Updated data dictionary to version 2.0)</li> </ul> |
| AMD12 Sulphur<br>Recovery and<br>Removal | Form repealed and no longer required beginning February 3, 202  | 3  |

### Effective April 22, 2022

| Form |                           | Excel Form Changes  | XML Schema Changes   |
|------|---------------------------|---|--|
| AMD1 | Approval<br>Contravention | <ul> <li>Updated drop-down options to correct mismatches with XML Schema.</li> <li>Added an alert to users when a cell is dragged and dropped, as this corrupts the Excel form and causes errors in submission.</li> <li>(Updated version to 3.2 - 3.1 will continue to be accepted)</li> </ul> | <ul> <li>Updated embedded .XSD file enumeration list<br/>options to correct mismatches with Excel<br/>Form.</li> <li>(Updated data dictionary to version 1.7)</li> </ul> |
| AMD2 | CEMS Summary              | <ul> <li>Updated drop-down options to correct mismatches with XML<br/>Schema.</li> <li>(Updated version to 4.1 - 4.0 will continue to be accepted)</li> </ul>   | <ul> <li>Updated embedded .XSD file enumeration list<br/>options to correct mismatches with Excel<br/>Form.</li> <li>(Updated data dictionary to version 2.1)</li> </ul> |

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| AMD4  | CGA Summary                              | <ul> <li>Updated drop-down options to correct mismatches with XML<br/>Schema.</li> <li>(Updated version to 4.1 - 4.0 will continue to be accepted)</li> </ul>   | <ul> <li>Updated embedded .XSD file enumeration list options to correct mismatches with Excel Form.</li> <li>(Updated data dictionary to version 2.1)</li> </ul> |
|-------|--|---|--|
| AMD5  | Emissions<br>Summary                     | <ul> <li>Updated drop-down options to correct mismatches with XML<br/>Schema.</li> <li>Corrected issues in the XML conversion of the Monthly and<br/>Annual tabs.</li> <li>(Updated version to 3.3 – previous version (3.2) will NOT be<br/>accepted after April 22, 2022)</li> </ul> | <ul> <li>Updated embedded .XSD file enumeration list options to correct mismatches with Excel Form.</li> <li>(Updated data dictionary to version 1.7)</li> </ul> |
| AMD6  | Flare Stack                              | <ul> <li>Updated drop-down options to correct mismatches with XML<br/>Schema.</li> <li>(Updated version to 3.3 - 3.2 will continue to be accepted)</li> </ul>   | Updated embedded .XSD file enumeration list options to correct mismatches with Excel Form.     (Updated data dictionary to version 1.7)                          |
| AMD7  | Manual Stack<br>Survey                   | <ul> <li>Updated drop-down options to correct mismatches with XML<br/>Schema.</li> <li>(Updated version to 4.1 - 4.0 will continue to be accepted)</li> </ul>   | <ul> <li>Updated embedded .XSD file enumeration list options to correct mismatches with Excel Form.</li> <li>(Updated data dictionary to version 2.2)</li> </ul> |
| AMD9  | RATA Summary                             | <ul> <li>Updated drop-down options to correct mismatches with XML<br/>Schema.</li> <li>(Updated version to 4.1 - 4.0 will continue to be accepted)</li> </ul>   | No Changes.  |
| AMD11 | Stack Survey<br>and RATA<br>Notification | No Changes.   | Updated embedded .XSD file enumeration list options to correct mismatches with Excel Form.     (Updated data dictionary to version 2.1)                          |

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### Effective September 30, 2021

| Form |                        | Excel Form Changes | XML Schema Changes   |
|------|------------------------|--------------------|--|
| AMD7 | Manual Stack<br>Survey | No changes.        | <ul> <li>Updated embedded .XSD file to correct errors<br/>in the list of Production Units and Analyzer<br/>Units that were causing some form<br/>submissions to fail.</li> <li>(Updated data dictionary to version 2.1)</li> </ul> |

#### Effective September 17, 2021

| Form            | Excel Form Changes  | XML Schema Changes |
|-----------------|---|--------------------|
| AMD8 Production | <ul> <li>Corrected an issue in the XML conversion of the Monthly-3 tab.</li> <li>Added an alert to users when a cell is dragged and dropped, as this corrupts the Excel form and causes errors in submission.</li> <li>Updated Instructions tab.</li> <li>(Updated to version 3.2)</li> </ul> | • No changes.      |

### Effective June 25, 2021

| Form              | Excel Form Changes  | XML Schema Changes   |
|-------------------|---|--|
| AMD2 CEMS Summary | <ul> <li>Added field for Source Name (cell E19; required).</li> <li>Added columns for the following: <ul> <li>Method Used for Daily Verifications (column AL; required)</li> <li>Number of Out-of-Control Events (column AM; required)</li> <li># Hours Out-of-Control (column AN)</li> </ul> </li> <li>Updated analyzer (columns G and H) and second analyzer range columns (columns J and K) to allow numerical entry of lower and upper ranges, both now reported with the same units (column I).</li> </ul> | <ul> <li>Updates to match form changes, including updates to instructions.</li> <li>Updated embedded .XSD file.</li> <li>(Updated data dictionary to version 2.0)</li> </ul> |

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| <ul> <li>Updated Method of Filling in Data columns (columns AB to AF) to allow entry of number of hours filled in.</li> <li>Updated Unique Source Identifier (cell B19) to be optional.</li> <li>Removed the following columns: <ul> <li>Mass Emissions Month Total</li> <li>Approval Limit Qualifier</li> </ul> </li> <li>Relocated Operational Mode Code column (now column X).</li> <li>Changed Performance Test columns to allow entry of more test types (column AH) and annual frequency of tests (column AI).</li> <li>Changed various field and column headings and instructions for clarity and to align with revised CEMS code.</li> <li>Added drop-down selections for the following columns: <ul> <li>Duration</li> <li>Interval</li> </ul> </li> <li>Updated Instructions tab.</li> <li>Updated to version 4.0)</li> </ul> |  |  |
|---|--|--|
| AMD3 CEMS Zero and<br>Span Summary  | • Form repealed and no longer required beginning June 25, 2021   |  |
| AMD4 CGA Summary  | <ul> <li>Added field for Source Name (cell D16; required).</li> <li>Updated Unique Source Identifier (cell B18) to be optional.</li> <li>Removed fields for the following: <ul> <li>Approval Limit Qualifier</li> <li>Approval Limit Value</li> <li>Approval Limit Units</li> </ul> </li> <li>Updated "Did result meet CEMS Code specifications" (column P) drop-down to allow entry of Incomplete Test, and other changes to allow submission of incomplete test.</li> <li>Changed various field and column headings and instructions for clarity</li> <li>Updated CEMS Code Performance Specification (column O) drop-down options.</li> </ul> | <ul> <li>Updates to match form changes, including updates to instructions.</li> <li>Updated embedded .XSD file.</li> <li>(Updated data dictionary to version 2.0)</li> </ul> |

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| <ul> <li>Updated parameters and units drop-down options.</li> <li>Updated Instructions tab.</li> <li>Updated Example tab.</li> <li>(Updated to version 4.0)</li> <li>AMD7 Manual Stack<br/>Survey</li> <li>Added field to report source Stack Diameter (cell G17; required).</li> <li>Added columns to report the following: <ul> <li>Time Interval (column C)</li> <li>Test Method (column D; required)</li> <li>Approval Time Interval (column R)</li> </ul> </li> <li>Removed Approval Limit Qualifier column</li> <li>Updated Unique Source Identifier (cell B17) to be optional.</li> <li>Updated "Were all Alberta Stack Sampling Code requirements met" (column T) drop-down to allow entry of Incomplete Test, and other changes to allow submission of incomplete test.</li> <li>Changed various field and column headings and instructions for clarity.</li> <li>Added drop-down list for Units for Production Rate (cell J19).</li> <li>Updated Instructions tab.</li> <li>Updated Instructions tab.</li> <li>Updated Example tab.</li> </ul> |              | <ul> <li>Updated Example tab.</li> <li>(Updated to version 4.0)</li> <li>Added field to report source Stack Diameter (cell G17; required).</li> <li>Added columns to report the following: <ul> <li>Time Interval (column C)</li> <li>Test Method (column D; required)</li> <li>Approval Time Interval (column R)</li> </ul> </li> <li>Removed Approval Limit Qualifier column</li> <li>Updated Source Name (cell C15) to be required.</li> <li>Updated Unique Source Identifier (cell B17) to be optional.</li> <li>Updated "Were all Alberta Stack Sampling Code requirements met" (column T) drop-down to allow entry of Incomplete Test, and other changes to allow submission of incomplete test.</li> <li>Changed various field and column headings and instructions for clarity.</li> <li>Added drop-down list for Units for Production Rate (cell J19).</li> <li>Updated Instructions tab.</li> </ul> | <ul> <li>Updates to match form changes, including updates to instructions.</li> <li>Updated embedded .XSD file.</li> <li>(Updated data dictionary to version 2.0)</li> </ul> |
|--|--------------|---|--|
| AMD9   | RATA Summary | <ul> <li>(Updated to version 4.0)</li> <li>Added field for Source Name (cell C14; required).</li> </ul>   | Updates to match form changes, including   |
|  |              | <ul> <li>Updated Unique Source Identifier (cell C16) to be optional.</li> <li>Added columns to report the following:         <ul> <li>Time Interval (column C)</li> </ul> </li> </ul>   | <ul><li>updates to instructions.</li><li>Updated embedded .XSD file.</li></ul>   |
|  |              | <ul> <li>Flow Reporting Units (column K – to be used when reporting Flow)</li> <li>Approval Time Interval (column T)</li> <li>Removed the following columns:         <ul> <li>Meets CEMS Code Bias Spec</li> <li>Approval Limit Qualifier</li> </ul> </li> </ul>  | (Updated data dictionary to version 2.0)   |



| <ul> <li>Approval Limit Units</li> <li>Added drop-down list for Units for Production Rate (cell M18).</li> <li>Updated "Does RATA meet CEMS Code?" (column P) drop-<br/>down to allow entry of Incomplete Test, and other changes to<br/>allow submission of incomplete test.</li> <li>Updated drop-down options for CEMS Code Performance<br/>Specification (column M) and Performance Specification<br/>(column N) units</li> <li>Updated parameters and units drop-down options.</li> <li>Note Analyzer Units (column B) and Parameter Units (for<br/>Approval compliance purposes) (Column S) have different<br/>units, as noted on Instructions tab.</li> <li>Updated Instructions tab.</li> <li>Updated Example tab.</li> </ul> |  |
|---|--|
| (Updated to version 4.0)  |  |

### Effective August 6, 2020

| Form |                        | Excel Form Changes | XML Schema Changes  |
|------|------------------------|--------------------|---|
| AMD7 | Manual Stack<br>Survey | No changes         | <ul> <li>Removed unit value within embedded schema (XSD): kscfm</li> <li>Added unit values within embedded schema: <ul> <li>mole%</li> <li>mole% dry</li> </ul> </li> <li>(Updated to version 1.9)</li> </ul> |

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### February 7, 2020 [Effective February 21, 2020]

| Form |                               | Excel Form Changes | XML Schema Changes   |
|------|-------------------------------|--------------------|--|
| AMD1 | Approval<br>Contravention     | No changes         | <ul> <li>Restricted fields to decimal within embedded schema (XSD): Duration,<br/>MeasuredOrEstimatedParameterQuantity, LimitConditionQuantity.</li> <li>Restricted field values in embedded schema (XSD) based on dropdown options<br/>in Excel form: Parameter Quantity Units, Limits Condition Units.</li> <li>Removed file naming conventions and added link to online guide.<br/>(Updated to version 1.6)</li> </ul>  |
| AMD2 | CEMS Summary                  | No changes         | <ul> <li>Restricted fields to decimal within embedded schema (XSD):<br/>MonthlyStackExhaustHours, TotalCemsOperationalHours,<br/>CemsAnalyzerPercentAvailability, MinimumReading, MaximumReading,<br/>AverageReading, MinimumEmissionRate, MaximumEmissionRate,<br/>AverageEmissionRate, MassEmissionMonthTotal, ApprovalLimit,<br/>HoursExceedingLimits.</li> <li>Restricted field values in embedded schema (XSD) based on dropdown options<br/>in Excel form: AnalyzerRangeUnits, AnalyzerSecondRangeUnit, Parameter<br/>Name, Method1MissingData, Method2MissingData, Method3MissingData,<br/>Method4MissingData.</li> <li>Removed file naming conventions and added link to online guide.<br/>(Updated to version 1.9)</li> </ul> |
| AMD3 | CEMS Zero and<br>Span Summary | No changes         | <ul> <li>Restricted fields to decimal within embedded schema (XSD): AnalyzerFullScale,<br/>ZeroReadingFromAnalyzer, ZeroReferenceGasConcentration,<br/>ZeroCemsDriftPercent, SpanReadingFromAnalyzer,<br/>SpanReferenceGasConcentration, SpanCemsDriftPercent.</li> <li>Restricted field values in embedded schema (XSD) based on dropdown options<br/>in Excel form: ZeroAlbertaCemsCodeCriteria, SpanAlbertaCemsCodeCriteria,<br/>AnalyzerFullScaleUnits, Parameter Name.</li> <li>Removed file naming conventions and added link to online guide.<br/>(Updated to version 1.7)</li> </ul>   |

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| AMD4 | CGA Summary          | No changes | <ul> <li>Restricted fields to decimal within embedded schema (XSD): Concentration,<br/>PercentFullScale, CylinderPressure, DeliveryPressure,<br/>CemsResponse1Concentration, CemsResponse2Concentration,<br/>CemsResponse3Concentration, AvergeResponse, CalculatedPercentLinearity,<br/>ApprovalLimit, CemsAnalyzerLowerRange1, CemsAnalyzerLowerRange2,<br/>CemsAnalyzerUpperRange1, CemsAnalyzerUpperRange2.</li> <li>Restricted field values in embedded schema (XSD) based on dropdown options<br/>in Excel form: ApprovalLimitUnits, ConcentrationUnits,<br/>CemsAnalyzerRangeUnits1, Parameter Name.</li> <li>Removed file naming conventions and added link to online guide.<br/>(Updated to version 1.8)</li> </ul> |
|------|----------------------|------------|--|
| AMD5 | Emissions<br>Summary | No changes | <ul> <li>Restricted fields to decimal within embedded schema (XSD): MonthlyPlantTotal,<br/>MonthlyParameterAverage, QuarterlyPlantTotal, QuaterlyParameterAverage,<br/>HoursOfOperation, MonthlyStackAverage, QuarterlyStackTotal,<br/>QuarterlyStackAverage, DailyPlantTotal, AnnualPlantTotal,<br/>AnnualParameterAverage, AnnualStackTotal, AnnualStackAverage,<br/>MonthlyAverageForAllSources.</li> <li>Restricted field values in embedded schema (XSD) based on dropdown options<br/>in Excel form: Parameter Name, Units.</li> <li>Removed file naming conventions and added link to online guide.<br/>(Updated to version 1.6)</li> </ul>   |
| AMD6 | Flare Stack          | No changes | <ul> <li>Restricted fields to decimal within embedded schema (XSD): Value,<br/>ProcessStreamVolumeSentToFlare, FuelGasVolumeSentToFlare,<br/>ProcessStreamVolumeVented, H2SPercentContainedInFlaredGas,<br/>NetHeatingValueOfFlaredGas, NetHeatingValueOfFuelGas.</li> <li>Restricted field values in embedded schema (XSD) based on dropdown options<br/>in Excel form: Substance Name, Units.</li> <li>Removed file naming conventions and added link to online guide.<br/>(Updated to version 1.6)</li> </ul>   |

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| AMD7 | Manual Stack<br>Survey | No changes | <ul> <li>Restricted fields to decimal within embedded schema (XSD):<br/>ProductionRateDuringTest, AvgProductionRateForPrevious30Days,<br/>AverageValue, ApprovalLimit, TestValue.</li> <li>Restricted field values in embedded schema (XSD) based on dropdown options<br/>in Excel form: ApprovalLimitUnits, Parameter Name, Units.</li> <li>Removed file naming conventions and added link to online guide.<br/>(Updated to version 1.8)</li> </ul>   |
|------|------------------------|------------|--|
| AMD8 | Production             | No changes | <ul> <li>Restricted fields to decimal within embedded schema (XSD): Value,<br/>MonthlyTotalAveragePercentSulphur, QuarterlyTotal, AnnualTotal,<br/>AnnualAveragePercentSulphur.</li> <li>Removed file naming conventions and added link to online guide.<br/>(Updated to version 1.5)</li> </ul>   |
| AMD9 | RATA Summary           | No changes | <ul> <li>Restricted fields to decimal within embedded schema (XSD):<br/>ComplianceTestRunResultValue, StackDiameter, ProductionRateDuringTest,<br/>AvgProductionRateForPrevious30Days, CemsAnalyzerFullScale,<br/>RelativeAccuracyAverageCemsResponse,<br/>RelativeAccuracyAverageReferenceMethodResult, RelativeAccuracy,<br/>BiasPercent, ComplianceTestRunsResultsAverage, ApprovalLimit.</li> <li>Restricted field values in embedded schema (XSD) based on dropdown options<br/>in Excel form: RelativeAccuracyCemsCodePerformanceSpecification,<br/>RelativeAccuracyPerformanceSpecificationUnits, Parameter Name, Units.</li> <li>Removed file naming conventions and added link to online guide.<br/>(Updated to version 1.8)</li> </ul> |

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| AMD10 S-30 Form                                | No changes   | <ul> <li>Restricted fields to decimal within embedded schema (XSD):<br/>SulphurInActualPlantFeedstockVolume, SulphurInActualPlantFeedstockMass,<br/>SulphurOutGasFlaredVolume, SulphurOutFlaredGasEmission,<br/>SulphurOutVolume, SulphurOutMass, TotalSulphur, SulphurInPercentH2S,<br/>SulphurOutPercentH2SFlaredGasSulphurOutPercentH2S,<br/>MonthlyMeasurementPercentDifference, EmissionMonitorDown,<br/>SulphurInApprovedMaxDailyPlantFeedstockVolume,<br/>SulphurInApprovedMaxDailyInlet, SulphurRecoveryEfficiencyMinApproved,<br/>SulphurRecoveryEfficiencyActualMonthly,<br/>SulphurRecoveryEfficiencyCummulativeQuarterly.</li> <li>Removed file naming conventions and added link to online guide.<br/>(Updated to version 1.7)</li> </ul> |
|--|--|--|
| AMD11 Stack Survey<br>and RATA<br>Notification | <ul> <li>Changed column J heading<br/>from "Deviations from<br/>Sampling Methods (Yes/No)"<br/>to "Deviations from Sampling<br/>Methods or Approval<br/>Conditions (Yes/No)".</li> <li>No changes to any form<br/>fields.</li> <li>(Version unchanged: 3.1)</li> </ul> | <ul> <li>Update to data dictionary field description for "DeviationsFromSamplingMethods".</li> <li>No changes to embedded XML schema (XSD file).<br/>(Updated version 2.0)</li> </ul>  |

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| AMD12 Sulphur<br>Recovery and<br>Removal | No changes | <ul> <li>Restricted fields to decimal within embedded schema (XSD):<br/>SO2InIncineratorFlueGasMax1HourIncineratorStackSO2MassEmission,<br/>IncineratorStackSO2MassEmissionMax1Hour,<br/>IncineratorStackTempMinimum1HourAverage,<br/>SO2MassEmissionRateFromFlareStack, IncineratorStackSO2MassEmission,<br/>SO2MassEmissionRateFromFlareStack, PercentOfTotal,<br/>AnalyzerUptimeSO2LimitPpm, SO2LimitTonnesPerHour,<br/>SO2LimitTonnesPerDay, MinimumStackTopTemp,<br/>MinApprovedSulphurRecoveryEfficiency, ApprovedMaxSulphurInletRate,<br/>ActualAvgSulphurRecoveryEfficiencyForMonth,<br/>ActualAvgSulphurInletRateForMonth,<br/>PercentTimeUnderDailyMassEmissionsLimit,<br/>QuarterlySulphurRecoveryEfficiency, AverageDailySulphurInletRate, Duration.</li> <li>Removed file naming conventions and added link to online guide.<br/>(Updated to version 1.9)</li> </ul> |
|--|------------|---|
|--|------------|---|

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### Version 3.2 and 3.3 Changes – August 23, 2019

| Form  | Form Changes  | Changes to Drop-downs   |
|---|---|---|
| AMD3 CEMS Zero and<br>Span Summary<br>(Updated to version 3.3)  | Drop down changes only  | <ul> <li>Removed unnecessary parameters from drop-down.</li> <li>Added two units (g/m<sup>3</sup> dry @ 10% O<sub>2</sub>, g/Sm<sup>3</sup> dry @ 7% O<sub>2</sub>) to drop-down and removed unnecessary units.</li> </ul>  |
| AMDZ Manual Stack   |   | · · · · · · · · · · · · · · · · · · ·   |
| AMD7 Manual Stack<br>Survey Summary<br>(Updated to version 3.2) | Drop down changes only  | <ul> <li>Added two parameters (Copper, and<br/>Total PCDD/PCDF) to drop-down and<br/>removed unnecessary parameters.</li> <li>Added two units (g/m<sup>3</sup> dry @ 10% O<sub>2</sub>,<br/>g/Sm<sup>3</sup> dry @ 7% O<sub>2</sub>) to drop-down<br/>and removed unnecessary units.</li> </ul> |
| AMD9 RATA Summary (Updated to version 3.3)                      | <ul> <li>In example tab, changed cell L26 from "%" to "°C of ref method".</li> <li>Changed cell validation rules to allow negative values in column J (relative accuracy).</li> </ul> | <ul> <li>Removed unnecessary parameters from drop-down.</li> <li>Added two units (g/m<sup>3</sup> dry @ 10% O<sub>2</sub>, g/Sm<sup>3</sup> dry @ 7% O<sub>2</sub>) to drop-down and removed unnecessary units.</li> </ul>  |

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## Version 3.2 Changes – June 21, 2019

| Form |                      | Form Changes   | Changes to Drop-downs  |
|------|----------------------|--|--|
| AMD2 | CEMS Summary         | <ul> <li>Changed cell validation rules to allow zeroes in cell B23, and columns N, O, and V, in all replicates and tabs.</li> <li>Added an alert to users when a cell is dragged and dropped, as this corrupts the Excel form and causes errors in submission.</li> </ul>  | • Added two units (g/m <sup>3</sup> dry @ 10% O <sub>2</sub> , g/Sm <sup>3</sup> dry @ 7% O <sub>2</sub> ) and removed unnecessary units and parameters from drop-downs.                         |
| AMD4 | CGA Summary          | <ul> <li>Changed cell validation rules to allow zeroes in columns H and I, in all replicates.</li> <li>Primary Range results (rows 30-31) were changed in the ETS system to "not required" to allow for reporting of only the dual span/second range, if desired.</li> <li>Added an alert to users when a cell is dragged and dropped, as this corrupts the Excel form and causes errors in submission.</li> </ul> | <ul> <li>Added two units (g/m<sup>3</sup> dry @ 10% O<sub>2</sub>,<br/>g/Sm<sup>3</sup> dry @ 7% O<sub>2</sub>) and removed<br/>unnecessary units and parameters<br/>from drop-downs.</li> </ul> |
| AMD5 | Emissions<br>Summary | Added an alert to users when a cell is dragged and dropped, as this corrupts the Excel form and causes errors in submission.   | <ul> <li>Removed unnecessary units and<br/>parameters from drop-downs.</li> </ul>  |
| AMD6 | Flare Stack          | <ul> <li>Changed cell input message in column H to clarify that only notifications relevant to EPEA approvals are applicable.</li> <li>Added an alert to users when a cell is dragged and dropped, as this corrupts the Excel form and causes errors in submission.</li> </ul>   | <ul> <li>Removed unnecessary units and<br/>parameters from drop-downs.</li> </ul>  |

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### Version 3.2 Changes – March 22, 2019

| Form |                               | Form Changes   | Changes to Drop-downs   |
|------|-------------------------------|--|---|
| AMD3 | CEMS Zero and<br>Span Summary | <ul> <li>Changed data validation rule to entries for columns K, L, M, and O, P, Q to<br/>enable numerical entries without restriction on value.</li> </ul> | <ul> <li>Added "N/A" as a drop-down<br/>option for Criteria Based on the<br/>Alberta CEMS Code fields.</li> </ul> |
| AMD9 | RATA Summary                  | <ul> <li>Modified input instructions for audit dates field (cell E16), and changed the<br/>example tab for the same field.</li> </ul>                      | • None  |

## Version 3.1 Change – March 11, 2019

| Form |                                | Form Changes                  | Changes to Drop-downs |
|------|--------------------------------|-------------------------------|-----------------------|
| AMD7 | Manual Stack<br>Survey Summary | Changed example tab data only | • None                |

### Version 3.1 Changes – January 18, 2019

| Form |                           | Form Changes   | Changes to Drop-downs |
|------|---------------------------|--|-----------------------|
| AMD1 | Approval<br>Contravention | <ul> <li>Added a note on the definition of "day" to instructions tab.</li> <li>Changed the version number and date.</li> </ul>   | • None                |
| AMD2 | CEMS Summary              | <ul> <li>Added a note on the definition of "day" to instructions tab.</li> <li>Added a listing of parameters drop-down items to instructions tab.</li> <li>Made a background change which was necessary for submission of form.</li> <li>Changed the version number and date.</li> </ul> | • None                |

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| AMD3  | CEMS Zero and<br>Span Summary  | <ul> <li>Added a note on the definition of "day" to instructions tab.</li> <li>Added a listing of parameters drop-down items to instructions tab.</li> <li>Changed the version number and date.</li> </ul>   | • None |
|-------|--------------------------------|--|--------|
| AMD4  | CGA Summary                    | <ul> <li>Added a note on the definition of "day" to instructions tab.</li> <li>Added a listing of parameters drop-down items to instructions tab.</li> <li>Changed the version number and date.</li> </ul>   | • None |
| AMD5  | Emission<br>Summary            | <ul> <li>Added a note on the definition of "day" to instructions tab.</li> <li>Added a listing of parameters drop-down items to instructions tab.</li> <li>Changed the version number and date.</li> </ul>   | • None |
| AMD6  | Flare Stack                    | <ul> <li>Added a note on the definition of "day" to instructions tab.</li> <li>Added a listing of parameters drop-down items to instructions tab.</li> <li>Changed the version number and date.</li> </ul>   | • None |
| AMD7  | Manual Stack<br>Survey Summary | <ul> <li>Added a note on the definition of "day" to instructions tab.</li> <li>Added a listing of parameters drop-down items to instructions tab.</li> <li>Changed the version number and date.</li> </ul>   | • None |
| AMD8  | Production                     | <ul> <li>Added a note on the definition of "day" to instructions tab.</li> <li>Changed the version number and date.</li> </ul>   | • None |
| AMD9  | RATA Summary                   | <ul> <li>Changed Audit Date(s) field to be text, to enable entry of multiple dates, with instructions as to how to do so.</li> <li>Added a note on the definition of "day" to instructions tab.</li> <li>Added a listing of parameters drop-down items to instructions tab.</li> <li>Changed the version number and date.</li> </ul> | • None |
| AMD10 | S-30                           | <ul> <li>Added a note on the definition of "day" to instructions tab.</li> <li>Changed the version number and date.</li> </ul>   | • None |
| AMD11 | RATA/SES<br>Notification       | <ul> <li>Removed restriction on dates entered in "Deviations Approval Date by<br/>Regulator" column.</li> <li>Changed the version number and date.</li> </ul>  | • None |

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| -                       | <ul> <li>Added a note on the definition of "day" to instructions tab.</li> </ul> | None |
|-------------------------|--|------|
| Recovery and<br>Removal | Changed the version number and date.   |      |
|                         |  |      |

### Version 3.0 Changes – December 20, 2018

| Form |                               | Form Changes   | Changes to Drop-downs   |
|------|-------------------------------|--|---|
| AMD1 | Approval<br>Contravention     | <ul> <li>Changed validation of AER ID to allow a string of between 0 and 254 characters.</li> <li>Removed rounding from cell formats.</li> <li>Added notes in instructions tab on decimal places and referring to the XML schema for form field descriptions and which fields are required.</li> <li>Changed the version number and date.</li> </ul> | <ul> <li>Added six units to the units<br/>drop-down, and the instructions<br/>tab.</li> </ul> |
| AMD2 | CEMS Summary                  | <ul> <li>Changed validation of AER ID to allow a string of between 0 and 254 characters.</li> <li>Removed rounding from cell formats.</li> <li>Added notes in instructions tab on decimal places and referring to the XML schema for form field descriptions and which fields are required.</li> <li>Changed the version number and date.</li> </ul> | <ul> <li>Added six units to the units<br/>drop-down, and the instructions<br/>tab.</li> </ul> |
| AMD3 | CEMS Zero and<br>Span Summary | <ul> <li>Changed validation of AER ID to allow a string of between 0 and 254 characters.</li> <li>Removed rounding from cell formats.</li> <li>Added notes in instructions tab on decimal places and referring to the XML schema for form field descriptions and which fields are required.</li> <li>Changed the version number and date.</li> </ul> | • Added six units to the units drop-down, and the instructions tab.                           |

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| AMD4 | CGA Summary         | <ul> <li>This form has been reformatted. In the previous version, the cylinder gas information and the CGA response information were in two separate tables, and these tables were duplicated for a dual-range analyzer. These four tables have been combined into one, with separate sections for each part. The information requested is the same (though there were two columns in the cylinder gas table which were duplicated in the CGA response, and these have been removed), only the format has changed.</li> <li>Changed validation of AER ID to allow a string of between 0 and 254 characters.</li> <li>Removed rounding from cell formats.</li> <li>Added notes in instructions tab on decimal places and referring to the XML schema for form field descriptions and which fields are required.</li> <li>Changed the version number and date.</li> </ul> | • Added six units to the units drop-down, and the instructions tab.  |
|------|---------------------|---|--|
| AMD5 | Emission<br>Summary | <ul> <li>Corrected a spelling mistake in the Measurement or Calculation Method drop-<br/>down.</li> <li>Updated data validation rules on the three monthly tabs, annual tab, and<br/>example tab to allow for entry of 0 (zero) hours operational.</li> <li>Changed validation of AER ID to allow a string of between 0 and 254 characters.</li> <li>Removed rounding from cell formats.</li> <li>Added notes in instructions tab on decimal places and referring to the XML<br/>schema for form field descriptions and which fields are required.</li> <li>Changed the version number and date.</li> </ul>   | • Added six units to the units drop-down, and the instructions tab.  |
| AMD6 | Flare Stack         | <ul> <li>Set Column B (Gas analysis Date(s)) to text, and added special instructions for entry of date(s) in that column to enable proper intake of multiple dates.</li> <li>Changed validation of AER ID to allow a string of between 0 and 254 characters.</li> <li>Removed rounding from cell formats.</li> <li>Added notes in instructions tab on decimal places and referring to the XML schema for form field descriptions and which fields are required.</li> <li>Changed the version number and date.</li> </ul>  | <ul> <li>Added a Yes/No dropdown to column H – Reference to Notification Provided – with instructions.</li> <li>Added six units to the units drop-down, and the instructions tab.</li> </ul> |

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| AMD7  | Manual Stack<br>Survey<br>Summary | <ul> <li>Changed validation of AER ID to allow a string of between 0 and 254 characters.</li> <li>Removed rounding from cell formats.</li> <li>Added notes in instructions tab on decimal places and referring to the XML schema for form field descriptions and which fields are required.</li> <li>Changed the version number and date.</li> </ul> | • Added six units to the units drop-down, and the instructions tab.   |
|-------|-----------------------------------|--|---|
| AMD8  | Production                        | <ul> <li>Changed validation of AER ID to allow a string of between 0 and 254 characters.</li> <li>Removed rounding from cell formats.</li> <li>Added notes in instructions tab on decimal places and referring to the XML schema for form field descriptions and which fields are required.</li> <li>Changed the version number and date.</li> </ul> | • No drop-downs in AMD8.  |
| AMD9  | RATA Summary                      | <ul> <li>Changed validation of AER ID to allow a string of between 0 and 254 characters.</li> <li>Removed rounding from cell formats.</li> <li>Added notes in instructions tab on decimal places and referring to the XML schema for form field descriptions and which fields are required.</li> <li>Changed the version number and date.</li> </ul> | <ul> <li>Added six units to the units<br/>drop-down, and the instructions<br/>tab.</li> <li>Added one entry to<br/>performance specification units<br/>(°C of ref method), and updated<br/>wording of another unit (m/s of<br/>RM to m/s of ref method).</li> </ul> |
| AMD10 | S-30                              | <ul> <li>Changed validation of AER ID to allow a string of between 0 and 254 characters.</li> <li>Removed rounding from cell formats.</li> <li>Added notes in instructions tab on decimal places and referring to the XML schema for form field descriptions and which fields are required.</li> <li>Changed the version number and date.</li> </ul> | <ul> <li>No drop-downs in AMD10.</li> </ul>   |

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| AMD11 RATA/SES<br>Notification           | <ul> <li>Corrected capitalization of "RATA Certification" in drop-down for Type of Survey.</li> <li>Made minor correction to date formats in columns F, and G (Proposed Start and End Dates).</li> <li>Set Column N (Rescheduled Date(s)) to text, and added special instructions for entry of date(s) in that column, to enable proper system intake of multiple dates.</li> <li>Changed validation of AER ID to allow a string of between 0 and 254 characters.</li> <li>Removed rounding from cell formats.</li> <li>Added notes in instructions tab on decimal places and referring to the XML schema for form field descriptions and which fields are required.</li> <li>Changed the version number and date.</li> </ul> | • No drop-downs in AMD11.                   |
|--|---|---|
| AMD12 Sulphur<br>Recovery and<br>Removal | <ul> <li>Changed validation of AER ID to allow a string of between 0 and 254 characters.</li> <li>Removed rounding from cell formats.</li> <li>Added notes in instructions tab on decimal places and referring to the XML schema for form field descriptions and which fields are required.</li> <li>Changed the version number and date.</li> </ul>  | <ul> <li>No drop-downs in AMD12.</li> </ul> |

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## Version 2.0 Changes – October 31, 2018

| Form |                               | Form Changes   | Drop-downs Added  |
|------|-------------------------------|--|---|
| AMD1 | Approval<br>Contravention     | <ul> <li>Changed H15 to read "Source Identifier" rather than "Source ID".</li> <li>Removed "Substance" from headings and replaced with "Parameter".</li> <li>Changed instructions tab submission section.</li> <li>Added descriptions for units drop-down in instructions tab.</li> </ul>  | <ul> <li>Added units drop-down to columns K<br/>and M.</li> </ul>   |
| AMD2 | CEMS Summary                  | <ul> <li>Changed column A heading to "Name of Parameter".</li> <li>Removed column AM (approval limit for operational mode code), as it duplicated column X.</li> <li>Cells E12, E14, I12, I14 changed "QAP Audit" to "Annual Evaluation".</li> <li>Changed E14 to "Date of annual evaluation completion" rather than a date range.</li> <li>Changed cell AI "Type of performance test done" to a drop down list (RATA, CGA).</li> <li>Updated heading titles for columns N to Y (was formerly "monthly results").</li> <li>Column headings AB to AF changed to refer to CEMS User Manual.</li> <li>Added note on use of operational mode codes in column AL.</li> <li>Changed instructions tab submission section.</li> <li>Added descriptions for units drop-down in instructions tab.</li> </ul> | <ul> <li>Added Parameters drop-down to column A.</li> <li>Added Units drop-down to columns B,H, and J.</li> </ul>   |
| AMD3 | CEMS Zero and<br>Span Summary | <ul> <li>Added a column (now I) for "Analyzer Full Scale Units".</li> <li>Changed columns J and N to "Based on the Alberta CEMS Code" so to not refer to table in 1998 Code.</li> <li>Changed column L and P headings to "Reference Gas Concentration".</li> <li>For columns L and P, added note that units match column I.</li> <li>Changed instructions tab first section and submission section.</li> <li>Added descriptions for units drop-down in instructions tab.</li> </ul>  | <ul> <li>Added Parameters drop-down to column E.</li> <li>Added Units drop-down to column I.</li> <li>Added Criteria drop-down to columns J and N.</li> </ul> |

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| AMD4 | CGA Summary                    | <ul> <li>Changed headings in H35 and H50 to say "Criteria based on the Alberta CEMS Code" rather than referring to a section number.</li> <li>Changed heading for analyzer range and dual range (cells D24 and F24) to "analyzer upper range" and added D22 and F22 analyzer lower range.</li> <li>Changed instructions tab submission section.</li> <li>Added descriptions for units drop-down in instructions tab.</li> </ul>   | <ul> <li>Added Parameters drop-down to B16.</li> <li>Added Units drop-downs to D20, D26, F26, D30:D32, B36:B38, D45:D47, and B51:B53.</li> <li>Added Criteria drop-downs to H36:38 and H51:H53.</li> </ul> |
|------|--------------------------------|---|--|
| AMD5 | Emission<br>Summary            | <ul> <li>Cells A15, A17 &amp; D17, changed "substance" to "parameter".<br/>In bottom of form, changed heading for "substance total" to<br/>"parameter total".</li> <li>Added "source name" field in new row (22 &amp; 23) and updated<br/>comment in A20 to include "source name". Updated example tab for<br/>unique source identifier and source name.</li> <li>Changed instructions tab submission section.</li> <li>Added descriptions for units drop-down in instructions tab.</li> </ul>  | <ul> <li>Added parameters drop-down for B17.</li> <li>Added units drop-down for E17.</li> </ul>  |
| AMD6 | Flare Stack                    | <ul> <li>Removed note in A20 that both SO<sub>2</sub> and sulphur must be reported.</li> <li>In cell D19 added "CEMS Station ID (if applicable)".</li> <li>In A20 added note "As defined in the Codes for Electronic Reporting."</li> <li>Added "Source Name" field in E/F19 and updated example table for source name.</li> <li>Added input message into column B cells showing format for reporting multiple dates.</li> <li>Changed instructions tab submission section.</li> <li>Added descriptions for units drop-down in instructions tab.</li> </ul> | <ul> <li>Added parameters drop-down to M20:P20.</li> <li>Added units as drop-down to M21:P21.</li> </ul>   |
| AMD7 | Manual Stack<br>Survey Summary | <ul> <li>In A19 added asterisk to "CEMS Station ID".</li> <li>In A20 added note for asterisk "As defined in the Codes for Electronic Reporting".</li> <li>Added "Source Name" field in C/D15 and updated example tab for source name.</li> <li>Changed instructions tab submission section.</li> <li>Added descriptions for units drop-down in instructions tab.</li> </ul>   | <ul> <li>Added parameters drop-down for<br/>column A.</li> <li>Added units drop-down for columns B<br/>and P.</li> </ul>   |

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| AMD8 Production                          | Changed instructions tab submission section.   | No drop-downs added to AMD8.  |
|--|--|---|
| AMD9 RATA Summary                        | <ul> <li>Changed "Notification Date" (cell G16) to Dec 15, 2017 in example tab.</li> <li>Changed column K to "CEMS Code Performance Specification".</li> <li>Changed column M heading to "Bias (%)".</li> <li>Changed column N to "Meets CEMS Code Bias Spec?"</li> <li>Added input message into cell E16 showing format for reporting multiple dates.</li> <li>Changed instructions tab submission section.</li> <li>Added descriptions for units drop-down in instructions tab.</li> </ul> | <ul> <li>Added parameters drop-down to column A.</li> <li>Added units drop-down to column B. Added performance specifications drop-down to column K.</li> <li>Added performance specification units drop-down to column L.</li> </ul> |
| AMD10 S-30                               | <ul> <li>Sulphur Production (column E) and Sulphur Stack Emission (column F) were blacked out, as these fields will not apply to sour gas facilities with &lt;1 tonne/day sulphur inlet and these duplicate the AMD6 Flare Stack Form.</li> <li>Changed instructions tab submission section.</li> </ul>  | No drop-downs added to AMD10.   |
| AMD11 RATA/SES<br>Notification           | <ul> <li>Added "RATA certification" to drop down in column A for Type of<br/>Survey.</li> <li>Added new column after E - now has proposed test start date (E) and<br/>proposed test end date (F).</li> <li>Added column C "Source Name" field and updated example with<br/>source name.</li> <li>Changed instructions tab submission section.</li> </ul>   | <ul> <li>No drop-downs added to AMD11.</li> </ul>   |
| AMD12 Sulphur<br>Recovery and<br>Removal | <ul> <li>Changed example tab: value in cell 56 moved to L56, cell L56 moved to M56.</li> <li>Moved "Analyzer Uptime" field from E15 to G15 and added "Source Name" to E15. Updated example for source name.</li> <li>Changed instructions tab submission section.</li> </ul>   | <ul> <li>No drop-downs added to AMD12.</li> </ul>   |