XML Schema for

AMD4 CGA Summary

Revision History

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| --- | --- | --- | --- |
| **Version** | **Date** | **Author(s)** | **Revision Notes** |
| 0.1 | Oct 03-2018 | Environment and Resources | Initial document |
| 0.2 | Oct 09-2018 | Environment and Resources | Updated schema |
| 1.0 | Nov-20-2018 | Environment and Resources | Updated schema namespace |
| 1.1 | Nov-28-2018 | Environment and Resources | Updated optional fields |
| 1.2 | Dec-08-2018 | Environment and Resources | Updated and embedded schema; updated data dictionary |
| 1.3 | Dec-12-2018 | Environment and Resources | Updated schema with certified gas changes and data dictionary with optional fields |
| 1.4 | Dec-18-2018 | Environment and Resources | Updated schema with certified gas changes and data dictionary with optional fields |
| 1.5 | Jan-08-2019 | Environment and Resources | Added schema version and embedded schema |
| 1.6 | Feb-06-2019 | Air Policy | Added file naming convention to data dictionary |
| 1.7 | Jun-21-2019 | Air Policy | Updated field description for PrimarySummary, SecondaryOrDualSpanSummary |
| 1.8 | Jan-28-2020 | Environment and Resources | Updated and embedded schema; updated data dictionary |
| 2.0 | Jun-25-2021 | Environment and Resources | Updated and embedded schema; updated data dictionary |
| 2.1 | Apr-22-2022 | Air Policy | Updated embedded .xsd schema |
| 2.2 | Apr-25-2025 | Air Policy | Updated embedded .xsd schema |

This document outlines the XML file format that is required for the submission of AMD4 CGA Summary.

Please note that the possible values for some of the [XML](https://www.w3schools.com/xml/default.asp) fields will be communicated later and minor changes to the [XML Schema](https://www.w3schools.com/xml/schema_intro.asp) may be needed in the future.

XML Schema

See attached:



File Naming Convention

Refer to required file naming conventions on the Air Monitoring Directive website:

[EPEA Approval Industrial Monitoring Documentation Submission Naming Guideline](https://www.alberta.ca/assets/documents/ep-epea-approval-industrial-monitoring-documentation-submission-naming-guideline.pdf)

Field Descriptions

|  |  |  |
| --- | --- | --- |
| **Field** | **Description** | **Required** |
| EpeaApproval | EPEA approval number (8 digits) | Yes |
| CompanyName | Name of the company | Yes |
| FacilityName | Name of the facility | Yes |
| AerId | AER ID | No |
| FacilityContactName | Name of the facility contact | Yes |
| FacilityContactPhone | Phone of the facility contact; e.g., 555-555-1234 | Yes |
| FacilityContactEmail | Email of the facility contact; e.g., abc@xyz.com | Yes |
| CGAConductor | Name of the Contractor Company | Yes |
| LeadPersonConductingCGA | Contact name at the contractor company | Yes |
| ContractorNameSubmittingForm | Name of the contractor who is submitting | No |
| ContractorContactEmail | Email of the contract contact; e.g., abc@xyz.com | No |
| Year | Year in YYYY format | Yes |
| Month | Name of the reporting month; e.g., January | Yes |
| Parameters | Collection of each CGA parameter | Yes |
|  Name | Name of the parameter monitored; e.g., Nitrogen Oxides | Yes |
| UniqueSourceIdentifier | Unique source identifier; e.g., P1 | No |
|  CemsStationId | CEMS station id; e.g., 19040 | Yes |
|  CemsAnalyzerSerialNumber | CEMS analyzer serial number; e.g., 2038557 | Yes |
|  CemsAnalyzerMake | CEMS analyzer make; e.g., advance optima  | Yes |
|  CemsAnalyzerModel | CEMS analyzer model; e.g., A02040 | Yes |
|  SourceName | Source name; e.g., Reformer Stack | Yes |
|  CemsAnalyzerLowerRange1 | CEMS analyzer lower range 1; e.g., 0 | Yes |
|  CemsAnalyzerLowerRange2 | CEMS analyzer lower range 2 in number; | No |
|  CemsAnalyzerUpperRange1 | CEMS analyzer upper range 1; e.g., 120 | Yes |
|  CemsAnalyzerUpperRange2 | CEMS analyzer upper range 2 in number; | No |
|  CemsAnalyzerRangeUnits1 | CEMS analyzer range units 1; e.g., ppm | Yes |
|  CemsAnalyzerRangeUnits2 | CEMS analyzer range units 2; e.g., ppm | No |
|  AuditStartDate | Audit start date and time in format: YYYY-MM-DDThh:mm:ss.ttt | Yes |
|  AuditEndDate | Audit end date and time in format: YYYY-MM-DDThh:mm:ss.ttt | Yes |
|  Comment | General comments | No |
| PrimarySummary, SecondaryOrDualSpanSummary | Certified gases low, mid and high level gases summary | Yes (primary or second) |
|  LowLevelGas, MidLevelGas, HighLevelGas |  | Yes |
|  Protocol1CylinderID | Low, mid and high level protocol 1 cylinder gas id; e.g., 21-TFE-6988 | Yes |
|  Concentration | Low, mid and high level gas concentration; e.g., 0.00 | Yes |
|  ConcentrationUnits | Low, mid and high level gas concentration units; e.g., ppm | Yes |
|  ExpiryDate | Low, mid and high level gas expirty date; e.g., 2020-05-09 | Yes |
|  PercentFullScale | Low, mid and high level gas percent of full scale; e.g., 0.00-20, 40-60, 80-100 | Yes |
|  CylinderPressure | Low, mid and high level gas cylinder pressure (psi); e.g., 2000.00  | Yes |
|  DeliveryPressure | Low, mid and high level gas delivery pressure (psi); e.g. 20.00 | No |
|  CemsResponse1Concentration | CEMS response 1 concentration; e.g., 0.40 | No |
|  CemsResponse2Concentration | CEMS response 2 concentration; e.g., 0.40 | No |
|  CemsResponse3Concentration | CEMS response 3 concentration; e.g., 0.40 | No |
|  AvergeResponse | Average response; e.g., 0.30 | No |
|  CalculatedPercentLinearity | Calculated percent linearity; e.g., -0.25 | No |
|  CemsCriteriaBasedOnAlbertaCemsCode | CEMS criteria based on Alberta code (% change); e.g., 2.0  | Yes |
|  ResultsMeetCemsSpecifications | Results met CEMS specifications? (Yes,No,Incomplete test). Note: if "Incomplete test" is chosen, explain in general comments. | Yes |
|  CorrectiveActionBriefDescription | Brief description of corrective actions; e.g., n/a | No |
|  SystemAcceptable | System acceptable? True/false (Yes/No) | Yes |

Reference Links

* [XML Overview](https://www.w3schools.com/xml/default.asp)
* [Schema Overview](https://www.w3schools.com/xml/schema_intro.asp)