

Changes to Emissions XML Schema Version 1.4

The purpose of this document is to list the changes that have been made to the Emissions XML Schema for Version 1.4. The document is organized in the following order:

- Changes to complex elements listed in alphabetic order.
- Changes to the validation types.

I. Complex Data Element

The following elements were added in support of reporting for the MATS Rule:

- Added the complex element HourlyGFMDData as a child of HourlyOperatingData. This new complex element includes the following elements:

Element	Validation Type
ComponentID	RequiredIdentifierType
BeginEndHourFlag	BeginEndHourFlagType
HourlyGFMReading	HourlyGFMReadingType
AvgHourlySamplingRate	HourlySamplingRateType
SamplingRateUOM	SamplingRateUOMCodeType
HourlySFSRRatio	HourlySFSRRatioType

- Added the element InjectionProtocolCode as a child of DailyCalibrationData. Validation type = "InjectionProtocolCodeType".
- Added the complex element MATSDerivedHourlyValueData as a child of HourlyOperatingData. This new complex element includes the following elements:

Element	Validation Type
ParameterCode	MATSDerivedHourlyParameterCodeType
UnadjustedHourlyValue	ScientificNotationType
MODCCode	MODCCodeType
FormulaIdentifier	OptionalFormulaIdentifierType

- Added the element MATSHourLoad as a child of HourlyOperatingData. Validation type = "HourLoadType".

- Added the complex element MATSMonitorHourlyValueData as a child of HourlyOperatingData. This new complex element includes the following elements:

Element	Validation Type
ParameterCode	MATSMonitorHourlyParameterCodeType
UnadjustedHourlyValue	ScientificNotationType
MODCCode	MODCCodeType
MonitoringSystemID	OptionalIdentifierType
ComponentID	OptionalIdentifierType
PercentAvailable	PercentType

- Added the element MATSStartupShutdownFlag as a child of HourlyOperatingData. Validation type = "MATSStartupShutdownFlagType".
- Added the complex element SamplingTrainData as a child of SorbentTrapData. This new complex element includes the following elements:

Element	Validation Type
ComponentID	RequiredIdentifierType
SorbentTrapSN	SorbentTrapSNType
MainTrapHg	ScientificNotationType
BTTrapHg	ScientificNotationType
SpikeTrapHg	ScientificNotationType
SpikeReferenceValue	ScientificNotationType
TotalSampleVolumeDSCM	TotalSampleVolumeDSCMType
ReferenceSFSRRatio	ReferenceSFSRRatioType
SamplingRatioCheckResultCode	TestResultCodeType
HgConcentration	ScientificNotationType
PostLeakCheckResultCode	TestResultCodeType
PercentBreakthrough	PercentType
PercentSpikeRecovery	PercentType
TrainQAStatusCode	TrainQAStatusCodeType
SampleDamageExplanation	ExplanationType

- Added the complex element SorbentTrapData as a child of Emissions. This new complex element includes the following elements:

Element	Validation Type
StackPipeID	RequiredStackPipeType
UnitID	RequiredUnitType
MonitoringSystemID	RequiredIdentifierType
BeginDate	RequiredDateType
BeginHour	RequiredHourType
EndDate	RequiredDateType
EndHour	RequiredHourType
HgSystemConcentration	ScientificNotationType
PairedTrapAgreement	PairedAgreementType
AbsoluteDifferenceIndicator	IndicatorType
MODCCode	MODCCodeType

- Added the complex element WeeklySystemIntegrityData as a child of WeeklyTestSummaryData. This new complex element includes the following elements:

Element	Validation Type
GasLevelCode	UpscaleGasCodeType
ReferenceValue	CalibrationValueType
MeasuredValue	CalibrationValueType
APSIndicator	IndicatorType
SystemIntegrityError	CalibrationErrorType

- Added the complex element WeeklyTestSummaryData as a child of Emissions. This new complex element includes the following elements:

Element	Validation Type
StackPipeID	RequiredStackPipeType
UnitID	RequiredUnitType
Date	RequiredDateType
Hour	RequiredHourType

Element	Validation Type
Minute	RequiredMinuteType
ComponentID	RequiredIdentifierType
TestTypeCode	TestTypeCodeType
TestResultCode	TestResultCodeType
SpanScaleCode	SpanScaleCodeType

II. Validation Types

The following simple types were added in support of reporting for the MATS Rule:

- Added BeginEndHourFlagType which is used to validate BeginEndHourFlag in HourlyGFMDData.
- Added ExplanationType which is used to validate SampleDamageExplanation in SamplingTrainData.
- Added HourlyGFMRReadingType which is used to validate HourlyGFMRReading in HourlyGFMDData.
- Added HourlySamplingRateType which is used to validate AvgHourlySamplingRate in HourlyGFMDData.
- Added HourlySFSRRatioType which is used to validate HourlySFSRRatio in HourlyGFMDData.
- Added InjectionProtocolCodeType which is used to validate InjectionProtocolCode in DailyCalibrationData.
- Added MATSDerivedHourlyParameterCodeType which is used to validate ParameterCode in MATSDerivedHourlyValueData.
- Added MATSMonitorHourlyParameterCodeType which is used to validate ParameterCode in MATSMonitorHourlyValueData.
- Added MATSStartupShutdownFlagType which is used to validate MATSStartupShutdownFlag in HourlyOperatingData.
- Added PairedAgreementType which is used to validate PairedTrapAgreement in SorbentTrapData.
- Added ReferenceSFSRRatioType which is used to validate ReferenceSFSRRatio in SamplingTrainData.
- Added RequiredMinuteType which is used to validate Minute in WeeklyTestSummaryData.
- Added SamplingRateUOMCodeType which is used to validate SamplingRateUOM in HourlyGFMDData.
- Added ScientificNotationType which is used to validate:
 - UnadjustedHourlyValue in MATSDerivedHourlyValueData;
 - UnadjustedHourlyValue in MATSMonitorHourlyValueData;
 - BTTrapHg in SamplingTrainData;

- HgConcentration in SamplingTrainData;
- MainTrapHg in SamplingTrainData;
- SpikeReferenceValue in SamplingTrainData;
- SpikeTrapHg in SamplingTrainData; and
- HgSystemConcentration in SorbentTrapData.
- Added SorbentTrapSNType which is used to validate SorbentTrapSN in SamplingTrainData.
- Added TotalSampleVolumeDSCMType which is used to validate TotalSampleVolumeDSCM in SamplingTrainData.
- Added TrainQAStatusCodeType which is used to validate TrainQAStatusCode in SamplingTrainData.

The following enumeration values were added to existing simple types in support of reporting for the MATS Rule:

- Added the following values to validate MODCCCodeType:
 - 32
 - 33
 - 34
 - 35
 - 36
 - 37
 - 38
 - 39
 - 41
 - 42
- Added HGSII to validate TestTypeCodeType.