Purpose

This document identifies modifications for Release 16.1.0 to the Verify Locomotive (LOC) family of schemas. Because the current schema development paradigm for certain kinds of data validation has moved the validation to business rules, hence making the schema much less susceptible to data requirement changes, data elements that require enumeration validation have been given more generic data types. This policy relaxes the schema validation of these data elements but also requires that business rules provide data validation for enumerations.

Modified XML Files

EN_VER_LOC_LocomotiveSubmissionRootElement_v0.9.xsd
EN_VER_LOC_SharedDataElements_v0.9.xsd

EN_VER_LOC_LocomotiveSubmissionRootElement_v0.9.xsd

- The complex data type StandardFELDetailsType was added as follows:
  - Data element PollutantIdentifier [1 to 100 characters (LOC311,334,777,791)] was added with cardinality (1,1).
  - Data element ServiceClassTypeIdentifier [2 characters (LOC8,778,792)] was added with cardinality (1,1).
  - Data element StandardValue [0.00 to 99.99 (LOC783,793)] was added with cardinality (0,1).
  - Data element FamilyEmissionLimitValue [0.00 to 99.99 (LOC794)] was added with cardinality (0,1).
  - Data element FamilyEmissionLimitCapValue [0.00 to 99.99 (LOC795)] was added with cardinality (0,1).
  - Data element StandardRuleNumber [1 to 4 characters (LOC796)] was added with cardinality (0,1).

- The complex data type StandardFELDetailsType was added as follows:
  - Data element FamilyEmissionLimitValue [0.00 to 99.99 (LOC780,795)] was removed.

- The complex data type TestInformationGroupType was changed as follows:
  - Data element THCSubstitutedForNMHCIndicator [Y/N (LOC797)] was added with cardinality (0,1).

XML Shared Data Element and Data Type File Modifications

The annotation following the data element name references the corresponding data element identifiers in the data requirements (DR) spreadsheet. Note that some data elements may be used in more locations in the schemas than defined in the DR spreadsheet.
Data element FamilyEmissionLimitValue [0.00 to 99.99 (LOC794)] was added with data type Decimal4Point2NonNegativeType.

Data element FamilyEmissionLimitCapValue [0.00 to 99.99 (LOC795)] was changed to add LOC795 and remove LOC780.

Data element PollutantIdentifier [1 to 100 characters (LOC311,334,777,791)] was changed to add LOC791.

Data element ServiceClassTypeIdentifier [2 characters (LOC8,778,792)] was changed to add LOC792.

Data element StandardRuleNumber [1 to 4 characters (LOC796)] was added with data type NormalizedString1To4CharType.

Data element StandardValue [0.00 to 99.99 (LOC783,793)] was changed to add LOC793.

Data element THCSubstitutedForNMHCIndicator [Y/N (LOC797)] was added with data type YesNoIndicatorType.

Data type NormalizedString1To4CharType [1 to 4 characters type definition] was added.