CERS Schema Change Log Summary Release 1.07 → Release 1.08

Prepared by John Miller September 27, 2017

This technical document summarizes changes in the CERS EDT XML Schemas since the previous 1.07 Release.

Release 1.08 implements changes to the Chemical Library Query (CLQ), Regulator Facility Submittal Query (RFSQ), and Regulator Facility Submittal Submit (RFS) schemas to comply with a US EPA regulatory mandate to add 24 new Federal Hazard Class Categories for chemical inventory submissions by **January 1, 2018**.

As of **January 1, 2018**, all CERS EDT environments will accept EDT submittals using the 1.08 version of the RFS schema (RegulatorFacilitySubmittal.xsd). Cal EPA may continue to accept previous RFS schema versions after January 1, 2018 for a limited period of time to allow EDT implementers additional time to implement changes, but this is subject to change depending on regulatory requirements. As of **January 1, 2018**, all EDT implementers must make the necessary changes to accept the 1.08 version of the CLQ (ChemicalLibraryQuery.xsd) and RFSQ (RegulatorFacilitySubmittalQuery.xsd) schemas. All other previously released schemas with 1.05 and 1.06 namespaces remain unchanged.

All public information about CERS EDT is posted at http://cers.calepa.ca.gov/EDT/ . Technical questions about EDT can be referred to Manoj Beeravelli (Manoj.Beeravelli@calepa.ca.gov) or John Miller (john.miller@calepa.ca.gov).

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New Federal Hazard Category Data Elements

24 new Federal Hazard Category data elements (216f – 216cc) will be added to the affected schemas. The 5 existing Federal Hazard Category data elements (216a – 216e) will remain in the schemas for historical purposes. However, validation will be added to the XML processing code (non-schema affecting) for the RFS endpoint to disallow the obsolete Federal Hazard Category data elements (216a – 216e) from being used in submittals being submitted after the deadline for compliance (January or March 2018; this will need to be confirmed). Please review each section in this document that highlights the specific changes for each endpoint schema.

New Data Elements

Name	XML Element	CERS Data Registry ID
Federal Hazard Category = PHYSICAL: Flammable (Gases, Aerosols, Liquids or Solids)	FHCPhysicalFlammable	216f
Federal Hazard Category = PHYSICAL: Gas Under Pressure	FHCPhysicalGasUnderPressure	216g
Federal Hazard Category = PHYSICAL: Explosive	FHCPhysicalExplosive	216h
Federal Hazard Category = PHYSICAL: Self-heating	FHCPhysicalSelfHeating	216i
Federal Hazard Category = PHYSICAL: Pyrophoric (Liquid or Solid)	FHCPhysicalPyrophoric	216j
Federal Hazard Category = PHYSICAL: Oxidizer (Liquid, Solid or Gas)	FHCPhysicalOxidizer	216k
Federal Hazard Category = PHYSICAL: Organic Peroxide	FHCPhysicalOrganicPeroxide	216l
Federal Hazard Category = PHYSICAL: Self-reactive	FHCPhysicalSelfReactive	216m
Federal Hazard Category = PHYSICAL: Pyrophoric Gas	FHCPhysicalPyrophoricGas	216n
Federal Hazard Category = PHYSICAL: Corrosive to Metal	FHCPhysicalCorrosiveToMetal	216o
Federal Hazard Category = PHYSICAL: In Contact with Water Emits Flammable Gas	FHCPhysicalContactWaterEmitsFlammableGas	216p
Federal Hazard Category = PHYSICAL: Combustible Dust	FHCPhysicalCombustibleDust	216q
Federal Hazard Category = PHYSICAL: Hazard Not Otherwise Classified (HNOC)	FHCPhysicalHazardNotOtherwiseClassified	216r
Federal Hazard Category = HEALTH: Carcinogenicity	FHCHealthCarcinogenicity	216s
Federal Hazard Category = HEALTH: Acute Toxicity (Any Route of Exposure)	FHCHealthAcuteToxicity	216t
Federal Hazard Category = HEALTH: Reproductive Toxicity	FHCHealthReproductiveToxicity	216u
Federal Hazard Category =	FHCHealthSkinCorrosionIrritation	216v

HEALTH: Skin Corrosion or Irritation		
Federal Hazard Category = HEALTH: Respiratory or Skin Sensitization	FHCHealthRespiratorySkinSensitization	216w
Federal Hazard Category = HEALTH: Serious Eye Damage or Eye Irritation	FHCHealthSeriousEyeDamageEyeIrritation	216x
Federal Hazard Category = HEALTH: Specific Target Organ Toxicity (Single or Repeated Exposure)	FHCHealthSpecificTargetOrganToxicity	216y
Federal Hazard Category = HEALTH: Aspiration Hazard	FHCHealthAspirationHazard	216z
Federal Hazard Category = HEALTH: Germ Cell Mutagenicity	FHCHealthGermCellMutagenicity	216aa
Federal Hazard Category = HEALTH: Simple Asphyxiant	FHCHealthSimpleAsphyxiant	216bb
Federal Hazard Category = HEALTH: Hazard Not Otherwise Classified (HNOC)	FHCHealthHazardNotOtherwiseClassified	216cc

Tier 1 Chemical Library Query (CLQ): ChemicalLibraryQuery.xsd

The new elements will be added to the CLQ schema as follows:

- The 24 new data elements will be inserted after the FHCChronicHealth element (data element 216e)
- The 24 new data elements will have the following schema structure:

```
160    <xs:element name="FHCChronicHealth">
161      <xs:annotation>
162        <xs:documentation>216e</xs:documentation>
163      </xs:annotation>
164      <xs:simpleType>
165        <xs:restriction base="xs:string">
166          <xs:maxLength value="1"/>
167          <xs:minLength value="0"/>
168        </xs:restriction>
169      </xs:simpleType>
170    </xs:element>
171    <xs:element name="FHCPhysicalFlammable">
172      <xs:annotation>
173        <xs:documentation>216f</xs:documentation>
174      </xs:annotation>
175      <xs:simpleType>
176        <xs:restriction base="xs:string">
177          <xs:maxLength value="1"/>
178          <xs:minLength value="0"/>
179        </xs:restriction>
180      </xs:simpleType>
181    </xs:element>
182    <xs:element name="FHCPhysicalGasUnderPressure">
183      <xs:annotation>
184        <xs:documentation>216g</xs:documentation>
185      </xs:annotation>
186      <xs:simpleType>
187        <xs:restriction base="xs:string">
188          <xs:maxLength value="1"/>
189          <xs:minLength value="0"/>
190        </xs:restriction>
191      </xs:simpleType>
192    </xs:element>
```

Tier 2 Regulator Facility Submittal Query (RFSQ): RegulatorFacilitySubmittalQuery.xsd

The new elements will be added to the RFSQ schema as follows (highlighted):

- The 24 new data elements will be inserted after the FHCChronicHealth element (data element 216e)

- The 24 new data elements will have the following schema structure:

```
1190   <xs:element name="FHCChronicHealth" type="cers:YesNoFlagType" nillable="false">
1191     <xs:annotation>
1192       <xs:documentation>216e</xs:documentation>
1193     </xs:annotation>
1194   </xs:element>
1195   <xs:element name="FHCPhysicalFlammable" type="cers:YesNoFlagType" nillable="false">
1196     <xs:annotation>
1197       <xs:documentation>216f</xs:documentation>
1198     </xs:annotation>
1199   </xs:element>
1200   <xs:element name="FHCPhysicalGasUnderPressure" type="cers:YesNoFlagType" nillable="false">
1201     <xs:annotation>
1202       <xs:documentation>216g</xs:documentation>
1203     </xs:annotation>
1204   </xs:element>
1205   <xs:element name="FHCPhysicalExplosive" type="cers:YesNoFlagType" nillable="false">
1206     <xs:annotation>
1207       <xs:documentation>216h</xs:documentation>
1208     </xs:annotation>
1209   </xs:element>
```

Tier 6 Regulator Facility Submittal Submit (RFS): RegulatorFacilitySubmittal.xsd

The new elements will be added to the RFS schema as follows (highlighted):

- The 24 new data elements will be inserted after the FHCChronicHealth element (data element 216e)
- The 24 new data elements will have the following schema structure:

```
1114   <xs:element name="FHCChronicHealth" type="cers:YesNoFlagType" minOccurs="0">
1115     <xs:annotation>
1116       <xs:documentation>216e</xs:documentation>
1117     </xs:annotation>
1118   </xs:element>
1119   <xs:element name="FHCPhysicalFlammable" type="cers:YesNoFlagType" minOccurs="0">
1120     <xs:annotation>
1121       <xs:documentation>216f</xs:documentation>
1122     </xs:annotation>
1123   </xs:element>
1124   <xs:element name="FHCPhysicalGasUnderPressure" type="cers:YesNoFlagType" minOccurs="0">
1125     <xs:annotation>
1126       <xs:documentation>216g</xs:documentation>
1127     </xs:annotation>
1128   </xs:element>
1129   <xs:element name="FHCPhysicalExplosive" type="cers:YesNoFlagType" minOccurs="0">
1130     <xs:annotation>
1131       <xs:documentation>216h</xs:documentation>
1132     </xs:annotation>
1133   </xs:element>
```