DOT Form 5800.1

Hazardous Materials Incident Report XML Schema

```xml
<?xml version="1.0" encoding="UTF-8"?>
<!--
 Department of Transportation
 Research and Special Programs Administration (RSPA)

 XML Schema for Hazardous Materials Incident Report
 Form DOT 5800.1 (01-2004)
-->
<xs:schema
  targetNamespace="http://hazmat.dot.gov/XMLSchema/IncidentReport"
  xmlns="http://hazmat.dot.gov/XMLSchema/IncidentReport"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  elementFormDefault="qualified"
  version="01-2004" xml:lang="EN">

  <xs:annotation>
    <xs:documentation>
      Department of Transportation
      Research and Special Programs Ad ministration (RSPA)
      XML Schema for Hazardous Materials Incident Report
      Form DOT 5800.1 (01-2004)
    </xs:documentation>
  </xs:annotation>

  <xs:element name="IncidentReport">
    <xs:complexType>
      <xs:sequence>
        <xs:element name="ReportType"
                type="reportType"/>
        <xs:element name="GeneralIncidentInformation"
                type="generalIncidentInformation"/>
        <xs:element name="Consequences"
                type="consequences"/>
        <xs:element name="DescriptionOfEventsAndPackageFailure"
                type="descriptionOfEventsAndPackageFailure"
                minOccurs="0"/>
        <xs:element name="RecommendationsTakenToPreventRecurrence"
                type="recommendationsTakenToPreventRecurrence"
                minOccurs="0"/>
        <xs:element name="ContactInformation"
                type="contactInformation"/>
      </xs:sequence>
      <xs:attribute name="OMBControlNumber" type="token"
                fixed="2137-0039" use="optional"/>
    </xs:complexType>
  </xs:element>

  <!-- Part 1 ======================================== -->
  <xs:complexType name="reportType">
    <xs:sequence>
      <xs:choice id="q1">
        <xs:element name="A-ReleaseIncident" type="empty"/>
        <xs:element name="B-UndeclaredShipment" type="empty"/>
        <xs:element name="C-TankDamage" type="empty"/>
      </xs:choice>
      <xs:choice id="q2">
        <xs:element name="InitialReport">
          <xs:complexType>
            <xs:sequence>
              <xs:element name="CustomerTrackingNumber"
                      type="customerTrackingNumber" />
              <xs:element name="RespondToEmailAddress"
                      type="emailAddress"/>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
        <xs:element name="SupplementalReport">
          <xs:complexType>
            <xs:sequence>
              <xs:element name="CustomerTrackingNumber"
                      type="customerTrackingNumber" />
              <xs:element name="RespondToEmailAddress"
                      type="emailAddress"/>
              <xs:element name="IncidentReportNumber"
                      type="incidentReportNumber"/>
              <xs:element name="IncidentTrackingNumber"
                      type="incidentTrackingNumber"/>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
      </xs:choice>
    </xs:sequence>
  </xs:complexType>
```

```xml
<xs:simpleType name="customerTrackingNumber">
  <xs:restriction base="token">
    <xs:maxLength value="16"/>
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="incidentReportNumber">
  <xs:restriction base="token">
    <xs:maxLength value="12"/>
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="incidentTrackingNumber">
  <xs:restriction base="token">
    <xs:maxLength value="20"/>
  </xs:restriction>
</xs:simpleType>

<!-- Part 2 ========================================================= -->
<xs:complexType name="generalIncidentInformation">
  <xs:sequence>
    <xs:element name="DateOfIncident" type="xs:date" id="q3"/>
    <xs:element name="TimeOfIncident" type="xs:time" id="q4"/>
    <xs:element name="NationalResponseCenterReportNumber" minOccurs="0"
            id="q5">
      <xs:simpleType>
        <xs:restriction base="xs:positiveInteger">
          <xs:totalDigits value="8"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
    <xs:element name="ReportToAnotherDOTAgency" minOccurs="0" id="q6">
      <xs:complexType>
        <xs:sequence>
          <xs:element name="DOTAgency" type="dotAgency"/>
          <xs:element name="ReportNumber">
            <xs:simpleType>
              <xs:restriction base="token">
                <xs:maxLength value="12"/>
              </xs:restriction>
            </xs:simpleType>
          </xs:element>
        </xs:sequence>
      </xs:complexType>
    </xs:element>
    <xs:element name="LocationOfIncident" id="q7">
      <xs:complexType>
        <xs:choice>
          <xs:element name="US_Location">
            <xs:complexType>
              <xs:sequence>
                <xs:choice>
                  <xs:sequence>
                    <xs:element name="City" type="city"/>
                    <xs:element name="County" type="county"
                            minOccurs="0"/>
                    <xs:element name="State" type="state"/>
                    <xs:element name="Route" type="route"
                            minOccurs="0"/>
                  </xs:sequence>
                  <xs:sequence>
                    <xs:element name="County" type="county"/>
                    <xs:element name="State" type="state"/>
                    <xs:element name="Route" type="route"/>
                  </xs:sequence>
                </xs:choice>
                <xs:element name="PostalCode" type="postalCode"
                        minOccurs="0"/>
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            </xs:complexType>
          </xs:element>
          <xs:element name="NonUS_Location">
            <xs:complexType>
              <xs:sequence>
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                <xs:element name="County" type="county"
                        minOccurs="0"/>
                <xs:element name="State" type="nonUS_State"
                        minOccurs="0"/>
                <xs:element name="Route" type="route"
                        minOccurs="0"/>
                <xs:element name="PostalCode" type="postalCode"
                        minOccurs="0"/>
                <xs:element name="Country" type="country"/>
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        </xs:choice>
      </xs:complexType>
```

```xml
        </xs:element>
        <xs:choice id="q8">
          <xs:element name="AirTransportation"
                  type="airIncidentInformation"/>
          <xs:element name="ModeOfTransportation">
            <xs:simpleType>
              <xs:restriction base="token">
                <xs:enumeration value="Highway"/>
                <xs:enumeration value="Rail"/>
                <xs:enumeration value="Water"/>
              </xs:restriction>
            </xs:simpleType>
          </xs:element>
        </xs:choice>
        <xs:element name="TransportationPhase" id="q9">
          <xs:simpleType>
            <xs:restriction base="token">
              <xs:enumeration value="In Transit"/>
              <xs:enumeration value="Loading"/>
              <xs:enumeration value="Unloading"/>
              <xs:enumeration value="In Transit Storage"/>
            </xs:restriction>
          </xs:simpleType>
        </xs:element>
        <xs:element name="Carrier-Reporter" id="q10">
          <xs:complexType>
            <xs:sequence>
              <xs:element name="Name">
                <xs:simpleType>
                  <xs:restriction base="token">
                    <xs:maxLength value="80"/>
                  </xs:restriction>
                </xs:simpleType>
              </xs:element>
              <xs:element name="Address" type="address"/>
              <xs:element name="FederalDOTIdNumber" minOccurs="0">
                <xs:simpleType>
                  <xs:restriction base="token">
                    <xs:maxLength value="12"/>
                  </xs:restriction>
                </xs:simpleType>
              </xs:element>
              <xs:element name="HazmatRegistrationNumber" minOccurs="0">
                <xs:simpleType>
                  <xs:restriction base="token">
                    <xs:maxLength value="14"/>
                  </xs:restriction>
                </xs:simpleType>
              </xs:element>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
        <xs:element name="Shipper-Offeror" type="shipper-Offeror"
                maxOccurs="unbounded" id="q11"/>
      </xs:sequence>
    </xs:complexType>

    <xs:simpleType name="dotAgency">
      <xs:restriction base="token">
        <xs:enumeration
                value="Office of the Secretary of Transportation (OST)"/>
        <xs:enumeration value="Bureau of Transportation Statistics (BTS)"/>
        <xs:enumeration value="Federal Aviation Administration (FAA)"/>
        <xs:enumeration value="Federal Highway Administration (FHWA)"/>
        <xs:enumeration
                value="Federal Motor Carrier Safety Administration (FMCSA)"/>
        <xs:enumeration value="Federal Railroad Administration (FRA)"/>
        <xs:enumeration value="Federal Transit Administration (FTA)"/>
        <xs:enumeration value="Maritime Administration (MARAD)"/>
        <xs:enumeration
            value="National Highway Traffic Safety Administration (NHTSA)"/>
        <xs:enumeration value="Office of the Inspector General (OIG)"/>
        <xs:enumeration
                value="Research and Special Programs Administration (RSPA)"/>
        <xs:enumeration
                value="Saint Lawrence Seaway Development Corporation (SLSDC)"/>
        <xs:enumeration value="Surface Transportation Board (STB)"/>
      </xs:restriction>
    </xs:simpleType>

    <xs:complexType name="shipper-Offeror">
      <xs:sequence>
        <xs:element name="Name">
          <xs:simpleType>
            <xs:restriction base="token">
              <xs:maxLength value="80"/>
            </xs:restriction>
          </xs:simpleType>
        </xs:element>
        <xs:element name="Address" type="address"/>
```

```xml
        <xs:element name="Waybill-ShippingPaper" minOccurs="0">
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            <xs:restriction base="token">
              <xs:maxLength value="16"/>
            </xs:restriction>
          </xs:simpleType>
        </xs:element>
        <xs:element name="HazmatRegistrationNumber" minOccurs="0">
          <xs:simpleType>
            <xs:restriction base="token">
              <xs:maxLength value="14"/>
            </xs:restriction>
          </xs:simpleType>
        </xs:element>
        <xs:element name="Origin" type="address" minOccurs="0" id="q12"/>
        <xs:element name="HazardousMaterial" type="hazardousMaterial"
                maxOccurs="unbounded"/>
      </xs:sequence>
  </xs:complexType>

  <xs:complexType name="hazardousMaterial">
    <xs:sequence>
      <xs:element name="ShippingName" id="q14">
        <xs:simpleType>
          <xs:restriction base="token">
            <xs:maxLength value="250"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element name="Technical-TradeName" minOccurs="0" id="q15">
        <xs:simpleType>
          <xs:restriction base="token">
            <xs:maxLength value="20"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element name="HazardousClass-Division" id="q16">
        <xs:simpleType>
          <xs:restriction base="token">
            <xs:minLength value="2"/>
            <xs:maxLength value="2"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element name="IdentificationNumber" id="q17">
        <xs:simpleType>
          <xs:restriction base="token">
            <xs:maxLength value="6"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element name="PackingGroup" minOccurs="0" id="q18">
        <xs:simpleType>
          <xs:restriction base="token">
            <xs:enumeration value="I"/>
            <xs:enumeration value="II"/>
            <xs:enumeration value="III"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:choice id="q19">
        <xs:element name="QuantityReleased" type="quantity"/>
        <xs:element name="QuantityReleased_No" type="empty"/>
      </xs:choice>
      <xs:choice id="q20">
        <xs:element name="HazardousWaste_Yes">
          <xs:complexType>
            <xs:sequence>
              <xs:element name="EPAManifestNumber">
                <xs:simpleType>
                  <xs:restriction base="xs:positiveInteger">
                    <xs:totalDigits value="20"/>
                  </xs:restriction>
                </xs:simpleType>
              </xs:element>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
        <xs:element name="HazardousWaste_No" type="empty"/>
      </xs:choice>
      <xs:choice id="q21">
        <xs:element name="ToxicByInhalation_Yes">
          <xs:complexType>
            <xs:sequence>
              <xs:element name="HazardZone">
                <xs:simpleType>
                  <xs:restriction base="token">
                    <xs:pattern value="[A-D]"/>
                  </xs:restriction>
                </xs:simpleType>
```

```xml
                </xs:element>
              </xs:sequence>
            </xs:complexType>
          </xs:element>
          <xs:element name="ToxicByInhalation_No" type="empty"/>
        </xs:choice>
        <xs:choice id="q22">
          <xs:element name="Exemption-Approval-CACertificate_Yes">
            <xs:complexType>
              <xs:sequence>
                <xs:element name="CertificateNumber">
                  <xs:simpleType>
                    <xs:restriction base="token">
                      <xs:maxLength value="12"/>
                    </xs:restriction>
                  </xs:simpleType>
                </xs:element>
              </xs:sequence>
            </xs:complexType>
          </xs:element>
          <xs:element name="Exemption-Approval-CACertificate_No"
                  type="empty"/>
        </xs:choice>
        <xs:choice id="q23">
          <xs:element name="UndeclaredShipment_Yes" type="empty"/>
          <xs:element name="UndeclaredShipment_No" type="empty"/>
        </xs:choice>
        <xs:element name="Packaging" type="packaging" maxOccurs="unbounded"/>
      </xs:sequence>
    </xs:complexType>

    <xs:complexType name="packaging">
      <xs:sequence>
        <xs:element name="Destination" type="address" id="q13" minOccurs="0"/>
        <xs:element name="PackagingInformation"
                type="packagingInformation"/>
      </xs:sequence>
    </xs:complexType>

    <!-- Part 3 ====================================== -->
    <xs:complexType name="packagingInformation">
      <xs:sequence>
        <xs:choice id="q24">
                  <xs:element name="NonBulk" type="nonBulk"/>
                  <xs:element name="IntermediateBulkContainer-IBC"
                type="intermediateBulkContainer"/>
                  <xs:element name="CargoTankMotorVehicle-CTMV"
                type="markedPackaging"/>
                  <xs:element name="TankCar" type="markedPackaging"/>
                  <xs:element name="Cylinder" type="markedPackaging"/>
                  <xs:element name="RadioactiveMaterials"
                type="radioactiveMaterials"/>
                  <xs:element name="PortableTank" type="markedPackaging"/>
          <xs:element name="NonSpecificationPackaging"
                  type="nonSpecificationPackaging"/>
        </xs:choice>
        <xs:element name="Failure" minOccurs="0" maxOccurs="unbounded"
                id="q25">
          <xs:complexType>
            <xs:sequence>
              <xs:element name="WhatFailed"
                      type="whatFailed"/>
              <xs:element name="HowFailed"
                      type="howFailed"/>
              <xs:element name="CausesOfFailure"
                      type="causesOfFailure"/>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
      </xs:sequence>
    </xs:complexType>

    <xs:complexType name="markedPackaging">
      <xs:sequence>
        <xs:element name="IdentificationMarkings"
                type="identificationMarkings" id="q26a-mp"/>
        <xs:element name="PackageCapacityAndQuantity"
                type="packageCapacityAndQuantity"
                minOccurs="0" id="q27-mp"/>
        <xs:element name="PackagingConstructionAndTestInformation"
                type="packagingConstructionAndTestInformation"
                minOccurs="0" id="q28-mp"/>
      </xs:sequence>
    </xs:complexType>

    <xs:simpleType name="identificationMarkings" id="q26a">
      <xs:restriction base="token">
        <xs:maxLength value="40"/>
      </xs:restriction>
    </xs:simpleType>
```

```xml
<xs:complexType name="nonBulk">
  <xs:choice>
    <xs:sequence>
      <xs:element name="IdentificationMarkings"
            type="identificationMarkings" id="q26a-nb"/>
      <xs:element name="AdditionalCharacteristics" minOccurs="0">
        <xs:complexType>
          <xs:choice>
            <xs:element name="SinglePackage"
                  type="additionalCharacteristics"/>
            <xs:sequence>
              <xs:element name="OuterPackaging"
                    type="additionalCharacteristics"/>
              <xs:element name="InnerPackaging"
                    type="additionalCharacteristics"/>
            </xs:sequence>
          </xs:choice>
        </xs:complexType>
      </xs:element>
    </xs:sequence>
    <xs:choice>
      <xs:element name="SinglePackage"
            type="nonBulkSingleOuterLayer"/>
      <xs:sequence>
        <xs:element name="OuterPackaging"
              type="nonBulkSingleOuterLayer"/>
        <xs:element name="InnerPackaging" type="nonBulkInnerLayer"/>
      </xs:sequence>
    </xs:choice>
  </xs:choice>
</xs:complexType>

<xs:complexType name="additionalCharacteristics">
  <xs:sequence>
    <xs:element name="PackageCapacityAndQuantity"
          type="packageCapacityAndQuantity"
          minOccurs="0" id="q27"/>
    <xs:element name="PackagingConstructionAndTestInformation"
          type="packagingConstructionAndTestInformation"
          minOccurs="0" id="q28"/>
  </xs:sequence>
</xs:complexType>

<xs:complexType name="nonBulkSingleOuterLayer">
  <xs:sequence>
    <xs:element name="PackagingType">
      <xs:simpleType>
        <xs:restriction base="token">
          <xs:enumeration value="1 - Drum"/>
          <xs:enumeration value="2 - Wooden Barrel"/>
          <xs:enumeration value="3 - Jerrican"/>
          <xs:enumeration value="4 - Box"/>
          <xs:enumeration value="5 - Bag"/>
          <xs:enumeration value="6 - Composite Packaging"/>
          <xs:enumeration value="7 - Pressure receptacle"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
    <xs:element name="MaterialOfConstruction">
      <xs:simpleType>
        <xs:restriction base="token">
          <xs:enumeration value="A - Steel"/>
          <xs:enumeration value="B - Aluminum"/>
          <xs:enumeration value="C - Natural Wood"/>
          <xs:enumeration value="D - Plywood"/>
          <xs:enumeration value="F - Reconstituted Wood"/>
          <xs:enumeration value="G - Fiberboard"/>
          <xs:enumeration value="H - Plastic"/>
          <xs:enumeration value="L - Textile"/>
          <xs:enumeration value="M - Paper, multi-wall"/>
          <xs:enumeration
                value="N - Metal other than steel or aluminum"/>
          <xs:enumeration value="P - Glass, porcelain, or stoneware"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
    <xs:element name="HeadType" type="headType" minOccurs="0"/>
    <xs:element name="PackageCapacityAndQuantity"
          type="packageCapacityAndQuantity"
          minOccurs="0" id="q27-nbo"/>
    <xs:element name="PackagingConstructionAndTestInformation"
          type="packagingConstructionAndTestInformation"
          minOccurs="0" id="q28-nbo"/>
  </xs:sequence>
</xs:complexType>

<xs:complexType name="nonBulkInnerLayer">
  <xs:sequence>
    <xs:element name="PackagingType">
```

```xml
        <xs:simpleType>
          <xs:restriction base="token">
            <xs:enumeration value="1 - Bottle"/>
            <xs:enumeration value="2 - Can"/>
            <xs:enumeration value="3 - Box"/>
            <xs:enumeration value="4 - Bag"/>
            <xs:enumeration value="5 - Cylinder"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element name="MaterialOfConstruction">
        <xs:simpleType>
          <xs:restriction base="token">
            <xs:enumeration value="A - Metal (any type)"/>
            <xs:enumeration value="B - Glass, porcelain, or stoneware"/>
            <xs:enumeration value="C - Plastic"/>
            <xs:enumeration value="D - Fiberboard or cardboard"/>
            <xs:enumeration value="E - Wood (any type)"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element name="PackageCapacityAndQuantity"
              type="packageCapacityAndQuantity"
              minOccurs="0" id="q27-nbi"/>
      <xs:element
          name="PackagingConstructionAndTestInformation"
          type="packagingConstructionAndTestInformation"
          minOccurs="0" id="q28-nbi"/>
    </xs:sequence>
</xs:complexType>

<xs:complexType name="intermediateBulkContainer">
  <xs:choice>
    <xs:sequence>
      <xs:element name="IdentificationMarkings"
              type="identificationMarkings" id="q26a-ibc"/>
      <xs:element name="AdditionalCharacteristics" minOccurs="0">
        <xs:complexType>
          <xs:choice>
            <xs:element name="SinglePackage"
                    type="additionalCharacteristics"/>
            <xs:sequence>
              <xs:element name="OuterPackaging"
                      type="additionalCharacteristics"/>
              <xs:element name="InnerPackaging"
                      type="additionalCharacteristics"/>
            </xs:sequence>
          </xs:choice>
        </xs:complexType>
      </xs:element>
    </xs:sequence>
    <xs:choice>
      <xs:element name="SinglePackage"
              type="intermediateBulkContainerSingleOuterLayer"/>
      <xs:sequence>
        <xs:element name="OuterPackaging"
                type="intermediateBulkContainerSingleOuterLayer"/>
        <xs:element name="InnerPackaging"
                type="intermediateBulkContainerInnerLayer"/>
      </xs:sequence>
    </xs:choice>
  </xs:choice>
</xs:complexType>

<xs:complexType name="intermediateBulkContainerSingleOuterLayer">
  <xs:sequence>
    <xs:element name="PackagingType"
            type="intermediateBulkContainerPackagingType"/>
    <xs:element name="MaterialOfConstruction"
            type="intermediateBulkContainerMaterialOfConstruction"/>
    <xs:element name="HeadType" type="headType" minOccurs="0"/>
    <xs:element name="PackageCapacityAndQuantity"
            type="packageCapacityAndQuantity"
            minOccurs="0" id="q27-ibco"/>
    <xs:element name="PackagingConstructionAndTestInformation"
            type="packagingConstructionAndTestInformation"
            minOccurs="0" id="q28-ibco"/>
  </xs:sequence>
</xs:complexType>

<xs:complexType name="intermediateBulkContainerInnerLayer">
  <xs:sequence>
    <xs:element name="PackagingType"
            type="intermediateBulkContainerPackagingType"/>
    <xs:element name="MaterialOfConstruction"
            type="intermediateBulkContainerMaterialOfConstruction"/>
    <xs:element name="PackageCapacityAndQuantity"
            type="packageCapacityAndQuantity"
            minOccurs="0" id="q27-ibci"/>
    <xs:element name="PackagingConstructionAndTestInformation"
```

```xml
                  type="packagingConstructionAndTestInformation"
                  minOccurs="0" id="q28-ibci"/>
        </xs:sequence>
    </xs:complexType>

    <xs:simpleType name="intermediateBulkContainerPackagingType">
        <xs:restriction base="token">
            <xs:enumeration value=
                    "11 - Rigid IBC containing solids discharged by gravity"/>
            <xs:enumeration value=
   "21 - Rigid IBC containing solids discharged under pressure of more than 10 kPa"/>
            <xs:enumeration value="31 - Rigid IBC containing liquids"/>
            <xs:enumeration value=
                    "13 - Flexible IBC containing solids discharged by gravity"/>
        </xs:restriction>
    </xs:simpleType>

    <xs:simpleType name="intermediateBulkContainerMaterialOfConstruction">
        <xs:restriction base="token">
            <xs:enumeration value="1 - Metal"/>
            <xs:enumeration value="2 - Plastic"/>
            <xs:enumeration value="3 - Composite"/>
            <xs:enumeration value="4 - Fiberboard"/>
            <xs:enumeration value="5 - Wooden"/>
            <xs:enumeration value="6 - Flexible"/>
        </xs:restriction>
    </xs:simpleType>

    <xs:complexType name="nonSpecificationPackaging">
        <xs:sequence>
            <xs:element name="Type">
                <xs:simpleType>
                    <xs:restriction base="token">
                        <xs:maxLength value="16"/>
                    </xs:restriction>
                </xs:simpleType>
            </xs:element>
            <xs:choice>
                <xs:sequence>
                    <xs:element name="IdentificationMarkings"
                            type="identificationMarkings" id="q26a-nsp"/>
                    <xs:element name="AdditionalCharacteristics" minOccurs="0">
                        <xs:complexType>
                            <xs:choice>
                                <xs:element name="SinglePackage"
                                        type="additionalCharacteristics"/>
                                <xs:sequence>
                                    <xs:element name="OuterPackaging"
                                            type="additionalCharacteristics"/>
                                    <xs:element name="InnerPackaging"
                                            type="additionalCharacteristics"/>
                                </xs:sequence>
                            </xs:choice>
                        </xs:complexType>
                    </xs:element>
                </xs:sequence>
                <xs:choice>
                    <xs:element name="SinglePackage"
                            type="nonSpecificationPackagingSingleOuterLayer"/>
                    <xs:sequence>
                        <xs:element name="OuterPackaging"
                                type="nonSpecificationPackagingSingleOuterLayer"/>
                        <xs:element name="InnerPackaging"
                                type="nonSpecificationPackagingInnerLayer"/>
                    </xs:sequence>
                </xs:choice>
            </xs:choice>
        </xs:sequence>
    </xs:complexType>

    <xs:complexType name="nonSpecificationPackagingSingleOuterLayer">
        <xs:sequence>
            <xs:element name="PackagingType" type="token"/>
            <xs:element name="MaterialOfConstruction" type="token"/>
            <xs:element name="HeadType" type="headType" minOccurs="0"/>
            <xs:element name="PackageCapacityAndQuantity"
                    type="packageCapacityAndQuantity"
                    minOccurs="0" id="q27-nspo"/>
            <xs:element name="PackagingConstructionAndTestInformation"
                    type="packagingConstructionAndTestInformation"
                    minOccurs="0" id="q28-nspo"/>
        </xs:sequence>
    </xs:complexType>

    <xs:complexType name="nonSpecificationPackagingInnerLayer">
        <xs:sequence>
            <xs:element name="PackagingType" type="token"/>
            <xs:element name="MaterialOfConstruction" type="token"/>
            <xs:element name="PackageCapacityAndQuantity"
                    type="packageCapacityAndQuantity"
```

```xml
                    minOccurs="0" id="q27-nspi"/>
        <xs:element name="PackagingConstructionAndTestInformation"
                    type="packagingConstructionAndTestInformation"
                    minOccurs="0" id="q28-nspi"/>
    </xs:sequence>
</xs:complexType>

<xs:simpleType name="headType">
    <xs:restriction base="token">
        <xs:enumeration value="1 - Non-removable"/>
        <xs:enumeration value="2 - Removable"/>
    </xs:restriction>
</xs:simpleType>

<xs:complexType name="radioactiveMaterials">
    <xs:sequence>
        <xs:element name="IdentificationMarkings"
                    type="identificationMarkings" id="q26a-rm"/>
        <xs:choice minOccurs="0">
                    <xs:element name="SinglePackage"
                    type="additionalCharacteristics"/>
            <xs:sequence>
                <xs:element name="OuterPackaging"
                            type="additionalCharacteristics"/>
                <xs:element name="InnerPackaging"
                            type="additionalCharacteristics"/>
            </xs:sequence>
        </xs:choice>
        <xs:element name="PackagingCategory" id="q29">
            <xs:simpleType>
                <xs:restriction base="token">
                    <xs:enumeration value="Type A"/>
                    <xs:enumeration value="Type B"/>
                    <xs:enumeration value="Type C"/>
                    <xs:enumeration value="Excepted"/>
                    <xs:enumeration value="Industrial"/>
                </xs:restriction>
            </xs:simpleType>
        </xs:element>
        <xs:element name="PackagingCertification">
            <xs:complexType>
                <xs:choice>
                    <xs:element name="US_Certification">
                        <xs:complexType>
                            <xs:sequence>
                                <xs:element name="CertificationNumber">
                                    <xs:simpleType>
                                        <xs:restriction base="token">
                                            <xs:maxLength value="30"/>
                                        </xs:restriction>
                                    </xs:simpleType>
                                </xs:element>
                            </xs:sequence>
                        </xs:complexType>
                    </xs:element>
                    <xs:element name="SelfCertified" type="empty"/>
                </xs:choice>
            </xs:complexType>
        </xs:element>
        <xs:element name="NuclidePresent">
            <xs:simpleType>
                <xs:restriction base="token">
                    <xs:maxLength value="80"/>
                </xs:restriction>
            </xs:simpleType>
        </xs:element>
        <xs:element name="Activity" type="quantity"/>
        <xs:element name="TransportIndex">
            <xs:simpleType>
                <xs:restriction base="token">
                    <xs:maxLength value="2"/>
                </xs:restriction>
            </xs:simpleType>
        </xs:element>
        <xs:element name="CriticalSafetyIndex">
            <xs:simpleType>
                <xs:restriction base="token">
                    <xs:maxLength value="2"/>
                </xs:restriction>
            </xs:simpleType>
        </xs:element>
    </xs:sequence>
</xs:complexType>

<xs:complexType name="packageCapacityAndQuantity">
    <xs:sequence>
        <xs:element name="PackageCapacity" type="quantity"/>
        <xs:element name="AmountOfMaterialInPackage" type="quantity"/>
        <xs:element name="NumberOfPackagesInShipment">
            <xs:simpleType>
```

```xml
          <xs:restriction base="xs:positiveInteger">
            <xs:totalDigits value="4"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element name="NumberOfPackagesThatFailed">
        <xs:simpleType>
          <xs:restriction base="xs:nonNegativeInteger">
            <xs:totalDigits value="4"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
    </xs:sequence>
  </xs:complexType>

  <xs:complexType name="packagingConstructionAndTestInformation">
    <xs:sequence>
      <xs:element name="Manufacturer" minOccurs="0">
        <xs:simpleType>
          <xs:restriction base="token">
            <xs:maxLength value="80"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element name="ManufactureDate" type="xs:date" minOccurs="0"/>
      <xs:element name="SerialNumber" minOccurs="0">
        <xs:simpleType>
          <xs:restriction base="token">
            <xs:maxLength value="16"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element name="LastTestDate" type="xs:date" minOccurs="0"/>
      <xs:element name="MaterialOfConstruction" minOccurs="0">
        <xs:simpleType>
          <xs:restriction base="token">
            <xs:maxLength value="30"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element name="DesignPressure" type="pressure" minOccurs="0"/>
      <xs:element name="ShellThickness" type="thickness" minOccurs="0"/>
      <xs:element name="HeadThickness" type="thickness" minOccurs="0"/>
      <xs:element name="ServicePressure" type="pressure" minOccurs="0"/>
      <xs:element name="ValveOrDeviceFailed" minOccurs="0">
        <xs:complexType>
          <xs:sequence>
            <xs:element name="Type">
              <xs:simpleType>
                <xs:restriction base="token">
                  <xs:maxLength value="16"/>
                </xs:restriction>
              </xs:simpleType>
            </xs:element>
            <xs:element name="Manufacturer">
              <xs:simpleType>
                <xs:restriction base="token">
                  <xs:maxLength value="30"/>
                </xs:restriction>
              </xs:simpleType>
            </xs:element>
            <xs:element name="Model">
              <xs:simpleType>
                <xs:restriction base="token">
                  <xs:maxLength value="16"/>
                </xs:restriction>
              </xs:simpleType>
            </xs:element>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
    </xs:sequence>
  </xs:complexType>

  <xs:simpleType name="whatFailed">
    <xs:restriction base="token">
      <xs:enumeration value="101 - Air Inlet"/>
      <xs:enumeration value="102 - Auxiliary Valve"/>
      <xs:enumeration value="103 - Basic Material"/>
      <xs:enumeration value="104 - Body"/>
      <xs:enumeration value="105 - Bolts or Nuts"/>
      <xs:enumeration value="106 - Bottom Outlet Valve"/>
      <xs:enumeration value="107 - Check Valve"/>
      <xs:enumeration value="108 - Chime"/>
      <xs:enumeration value="109 - Closure (e.g., Cap, Top, or Plug)"/>
      <xs:enumeration value="110 - Cover"/>
      <xs:enumeration value="111 - Cylinder Neck or Shoulder"/>
      <xs:enumeration value="112 - Cylinder Sidewall - Near Base"/>
      <xs:enumeration value="113 - Cylinder Sidewall - Other"/>
      <xs:enumeration value="114 - Cylinder Valve"/>
```

```xml
        <xs:enumeration value="115 - Discharge Valve or Coupling"/>
        <xs:enumeration value="116 - Excess Flow Valve"/>
        <xs:enumeration value="117 - Fill Hole"/>
        <xs:enumeration value="118 - Flange"/>
        <xs:enumeration value="119 - Frangible Disc"/>
        <xs:enumeration
                value="120 - Fusible Pressure Relief Device or Element"/>
        <xs:enumeration value="121 - Gasket"/>
        <xs:enumeration value="122 - Gauging Device"/>
        <xs:enumeration value="123 - Heater Coil"/>
        <xs:enumeration value="124 - High Level Sensor"/>
        <xs:enumeration value="125 - Hose"/>
        <xs:enumeration value="126 - Hose Adaptor or Coupling"/>
        <xs:enumeration value="127 - Inlet (Loading) Valve"/>
        <xs:enumeration value="128 - Inner Packaging"/>
        <xs:enumeration value="129 - Inner Receptacle"/>
        <xs:enumeration value="130 - Lifting Feature"/>
        <xs:enumeration value="131 - Lifting Lug"/>
        <xs:enumeration value="132 - Liner"/>
        <xs:enumeration value="133 - Liquid Line"/>
        <xs:enumeration value="134 - Liquid Valve"/>
        <xs:enumeration value="135 - Loading or Unloading Lines"/>
        <xs:enumeration value="136 - Locking Bar"/>
        <xs:enumeration value="137 - Manway or Dome Cover"/>
        <xs:enumeration value="138 - Mounting Studs"/>
        <xs:enumeration value="139 - O-Ring or Seals"/>
        <xs:enumeration value="140 - Outer Frame"/>
        <xs:enumeration value="141 - Piping or Fittings"/>
        <xs:enumeration value="142 - Piping Shear Section"/>
        <xs:enumeration
            value="143 - Pressure Relief Valve or Device - Non-Reclosing"/>
        <xs:enumeration
                value="144 - Pressure Relief Valve or Device - Reclosing"/>
        <xs:enumeration value="145 - Remote Control Device"/>
        <xs:enumeration value="146 - Sample Line"/>
        <xs:enumeration value="147 - Stub Sill (Tank Car)"/>
        <xs:enumeration value="148 - Sump"/>
        <xs:enumeration value="149 - Tank Head"/>
        <xs:enumeration value="150 - Tank Shell"/>
        <xs:enumeration value="151 - Thermometer Well"/>
        <xs:enumeration value="152 - Threaded Connection"/>
        <xs:enumeration value="153 - Vacuum Relief Valve"/>
        <xs:enumeration value="154 - Valve Body"/>
        <xs:enumeration value="155 - Valve Seat"/>
        <xs:enumeration value="156 - Valve Spring"/>
        <xs:enumeration value="157 - Valve Stem"/>
        <xs:enumeration value="158 - Vapor Valve"/>
        <xs:enumeration value="159 - Vent"/>
        <xs:enumeration value="160 - Washout"/>
        <xs:enumeration value="161 - Weld or Seam"/>
    </xs:restriction>
</xs:simpleType>

<xs:simpleType name="howFailed">
    <xs:restriction base="token">
        <xs:enumeration value="301 - Abraded"/>
        <xs:enumeration value="302 - Bent"/>
        <xs:enumeration value="303 - Burst or Ruptured"/>
        <xs:enumeration value="304 - Cracked"/>
        <xs:enumeration value="305 - Crushed"/>
        <xs:enumeration value="306 - Failed to Operate"/>
        <xs:enumeration value="307 - Gouged or Cut"/>
        <xs:enumeration value="308 - Leaked"/>
        <xs:enumeration value="309 - Punctured"/>
        <xs:enumeration value="310 - Ripped or Torn"/>
        <xs:enumeration value="311 - Structural"/>
        <xs:enumeration value="312 - Torn Off or Damaged"/>
        <xs:enumeration value="313 - Vented"/>
    </xs:restriction>
</xs:simpleType>

<xs:simpleType name="causesOfFailure">
    <xs:restriction base="token">
        <xs:enumeration value="501 - Abrasion"/>
        <xs:enumeration value="502 - Broken Component or Device"/>
        <xs:enumeration value="503 - Commodity Self-ignition"/>
        <xs:enumeration value="504 - Commodity Polymerization"/>
        <xs:enumeration
                value="505 - Conveyer or Material Handling Equipment Mishap"/>
        <xs:enumeration value="506 - Corrosion - Exterior"/>
        <xs:enumeration value="507 - Corrosion - Interior"/>
        <xs:enumeration value="508 - Defective Component or Device"/>
        <xs:enumeration value="509 - Derailment"/>
        <xs:enumeration value="510 - Deterioration or Aging"/>
        <xs:enumeration value="511 - Dropped"/>
        <xs:enumeration value="512 - Fire, Temperature, or Heat"/>
        <xs:enumeration value="513 - Forklift Accident"/>
        <xs:enumeration value="514 - Freezing"/>
        <xs:enumeration value="515 - Human Error"/>
        <xs:enumeration
```

```xml
          value="516 - Impact with Sharp or Protruding Object (e.g., nails)"/>
      <xs:enumeration
              value="517 - Improper Preparation for Transportation"/>
      <xs:enumeration value="518 - Inadequate Accident Damage Protection"/>
      <xs:enumeration value="519 - Inadequate Blocking and Bracing"/>
      <xs:enumeration value="520 - Inadequate Maintenance"/>
      <xs:enumeration
              value="521 - Inadequate Preparation for Transportation"/>
      <xs:enumeration value="522 - Inadequate Procedures"/>
      <xs:enumeration value="523 - Inadequate Training"/>
      <xs:enumeration value="524 - Incompatible Product"/>
      <xs:enumeration value="525 - Incorrectly Sized Component or Device"/>
      <xs:enumeration value="526 - Loose Closure, Component, or Device"/>
      <xs:enumeration
              value="527 - Misaligned Material, Component, or Device"/>
      <xs:enumeration value="528 - Missing Component or Device"/>
      <xs:enumeration value="529 - Overfilled"/>
      <xs:enumeration value="530 - Over-pressurized"/>
      <xs:enumeration value="531 - Rollover Accident"/>
      <xs:enumeration
              value="532 - Stub Sill Separation from Tank (Tank Cars)"/>
      <xs:enumeration value="533 - Threads Worn or Cross Threaded"/>
      <xs:enumeration value="534 - Too Much Weight on Package"/>
      <xs:enumeration value="535 - Valve Open"/>
      <xs:enumeration value="536 - Vandalism"/>
      <xs:enumeration value="537 - Vehicular Crash or Accident Damage"/>
      <xs:enumeration value="538 - Water Damage"/>
    </xs:restriction>
</xs:simpleType>

<!-- Part 4 ==================================== -->
<xs:complexType name="consequences">
  <xs:sequence>
    <xs:element name="ResultsOfIncident" minOccurs="0" id="q30">
      <xs:complexType>
        <xs:choice>
          <xs:sequence>
            <xs:element name="Result" maxOccurs="6">
              <xs:simpleType>
                <xs:restriction base="token">
                  <xs:enumeration value="Spillage"/>
                  <xs:enumeration value="Fire"/>
                  <xs:enumeration value="Explosion"/>
                  <xs:enumeration
                   value="Material Entered Waterway/Storm Sewer"/>
                  <xs:enumeration value="Vapor (Gas) Dispersion"/>
                  <xs:enumeration value="Environmental Damage"/>
                </xs:restriction>
              </xs:simpleType>
            </xs:element>
          </xs:sequence>
          <xs:element name="NoRelease" type="empty"/>
        </xs:choice>
      </xs:complexType>
    </xs:element>
    <xs:element name="EmergencyResponse" minOccurs="0" id="q31">
      <xs:complexType>
        <xs:sequence>
          <xs:element name="Fire-EMSReport" type="reportNumber"
                  minOccurs="0"/>
          <xs:element name="PoliceReport" type="reportNumber"
                  minOccurs="0"/>
          <xs:element name="InHouseCleanup" type="empty"
                  minOccurs="0"/>
          <xs:element name="OtherCleanup" type="empty"
                  minOccurs="0"/>
        </xs:sequence>
      </xs:complexType>
    </xs:element>
    <xs:choice id="q32">
      <xs:element name="DamagesMoreThan500_Yes">
        <xs:complexType>
          <xs:sequence>
            <xs:element name="MaterialLoss" type="cost"/>
            <xs:element name="CarrierDamage" type="cost"/>
            <xs:element name="PropertyDamage" type="cost"/>
            <xs:element name="ResponseCost" type="cost"/>
            <xs:element name="Remediation-CleanupCost" type="cost"/>
            <xs:element name="TotalCost">
              <xs:simpleType>
                <xs:restriction base="token">
                  <xs:pattern value="\$[5-9]\d{2}|\$[1-9]\d{3,7}"/>
                </xs:restriction>
              </xs:simpleType>
            </xs:element>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="Damages_No" type="empty"/>
    </xs:choice>
```

```xml
<xs:element name="HumanFatalities" id="q33">
  <xs:complexType>
    <xs:sequence>
      <xs:choice id="q33a">
        <xs:element name="FatalitiesFromHazardousMaterial_Yes"
              type="public"/>
        <xs:element name="FatalitiesFromHazardousMaterial_No"
              type="empty"/>
      </xs:choice>
      <xs:choice id="q33b">
        <xs:element name="FatalitiesNotFromHazardousMaterial_Yes">
          <xs:complexType>
            <xs:sequence>
              <xs:element name="FatalitiesNumber">
                <xs:simpleType>
                  <xs:restriction base="xs:positiveInteger">
                    <xs:totalDigits value="3"/>
                  </xs:restriction>
                </xs:simpleType>
              </xs:element>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
        <xs:element name="FatalitiesNotFromHazardousMaterial_No"
              type="empty"/>
      </xs:choice>
    </xs:sequence>
  </xs:complexType>
</xs:element>
<xs:choice id="q34">
  <xs:element name="PersonalInjuries_Yes">
    <xs:complexType>
      <xs:sequence>
        <xs:element name="Hospitalized" type="public"/>
        <xs:element name="NonHospitalized" type="public"/>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
  <xs:element name="PersonalInjuries_No" type="empty"/>
</xs:choice>
<xs:choice id="q35">
  <xs:element name="Evacuation_Yes">
    <xs:complexType>
      <xs:sequence>
        <xs:element name="GeneralPublicEvacuated"
              type="evacuatedNumber"/>
        <xs:element name="EmployeesEvacuated"
              type="evacuatedNumber"/>
        <xs:element name="TotalEvacuated"
              type="evacuatedNumber"/>
        <xs:element name="DurationOfEvacuation" type="duration"/>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
  <xs:element name="Evacuation_No" type="empty"/>
</xs:choice>
<xs:choice id="q36">
  <xs:element name="TransportationArteryClosed_Yes">
    <xs:complexType>
      <xs:sequence>
        <xs:element name="Duration" type="duration"/>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
  <xs:element name="TransportationArteryClosed_No" type="empty"/>
</xs:choice>
<xs:choice id="q37">
  <xs:element name="MaterialInvolvedInCrash_Yes">
    <xs:complexType>
      <xs:sequence>
        <xs:element name="EstimatedSpeed">
          <xs:simpleType>
            <xs:restriction base="token">
              <xs:pattern value="\d{1,3} mph"/>
            </xs:restriction>
          </xs:simpleType>
        </xs:element>
        <xs:element name="WeatherConditions">
          <xs:simpleType>
            <xs:restriction base="token">
              <xs:maxLength value="16"/>
            </xs:restriction>
          </xs:simpleType>
        </xs:element>
        <xs:choice>
          <xs:element name="VehicleOverturn_Yes" type="empty"/>
          <xs:element name="VehicleOverturn_No" type="empty"/>
        </xs:choice>
        <xs:choice>
          <xs:element name="VehicleLeftRoadway-Track_Yes"
```

```xml
                             type="empty"/>
                <xs:element name="VehicleLeftRoadway-Track_No"
                             type="empty"/>
            </xs:choice>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="MaterialInvolvedInCrash_No" type="empty"/>
    </xs:choice>
  </xs:sequence>
</xs:complexType>

<xs:simpleType name="reportNumber">
  <xs:restriction base="token">
    <xs:maxLength value="16"/>
  </xs:restriction>
</xs:simpleType>

<xs:complexType name="public">
  <xs:sequence>
    <xs:element name="Employees" type="publicNumber"/>
    <xs:element name="Responders" type="publicNumber"/>
    <xs:element name="GeneralPublic" type="publicNumber"/>
  </xs:sequence>
</xs:complexType>

<xs:simpleType name="publicNumber">
  <xs:restriction base="xs:nonNegativeInteger">
    <xs:totalDigits value="3"/>
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="evacuatedNumber">
  <xs:restriction base="xs:nonNegativeInteger">
    <xs:totalDigits value="3"/>
  </xs:restriction>
</xs:simpleType>

<!-- Part 5 ========================================================== -->
<xs:complexType name="airIncidentInformation">
  <xs:sequence>
    <xs:choice id="q38">
      <xs:element name="ShipmentOnPassengerAircraft_Yes">
        <xs:complexType>
          <xs:sequence>
            <xs:element name="TenderType">
              <xs:simpleType>
                <xs:restriction base="token">
                  <xs:enumeration value="Cargo"/>
                  <xs:enumeration value="Passenger baggage"/>
                </xs:restriction>
              </xs:simpleType>
            </xs:element>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="ShipmentOnPassengerAircraft_No" type="empty"/>
    </xs:choice>
    <xs:element name="WhereIncidentOccur" id="q39">
      <xs:simpleType>
        <xs:restriction base="token">
          <xs:enumeration value="Air carrier cargo facility"/>
          <xs:enumeration value="Sort center"/>
          <xs:enumeration value="Baggage area"/>
          <xs:enumeration value="By surface to/from airport"/>
          <xs:enumeration value="During flight"/>
          <xs:enumeration
                   value="During loading/unloading of aircraft"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
    <xs:element name="PhasesShipmentAlreadyUndergone" id="q40">
      <xs:complexType>
        <xs:sequence>
          <xs:element name="Phase" maxOccurs="4">
            <xs:simpleType>
              <xs:restriction base="token">
                <xs:enumeration
                    value="Shipment had not been transported"/>
                <xs:enumeration
                    value="Transported by air (first flight)"/>
                <xs:enumeration
                  value="Transport by air (subsequent flights)"/>
                <xs:enumeration
          value="Initial transport by highway to cargo facility"/>
                <xs:enumeration
                  value="Transfer at sort center/cargo facility"/>
              </xs:restriction>
            </xs:simpleType>
          </xs:element>
```

```xml
          </xs:sequence>
        </xs:complexType>
      </xs:element>
    </xs:sequence>
  </xs:complexType>

  <!-- Part 6 ============================================================= -->
  <xs:complexType name="descriptionOfEventsAndPackageFailure">
    <xs:sequence>
      <xs:element name="Description">
        <xs:simpleType>
          <xs:restriction base="xs:string">
            <xs:maxLength value="80000"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element name="Attachments" minOccurs="0">
        <xs:complexType>
          <xs:sequence>
            <xs:element name="Attachment" type="attachment"
                    minOccurs="0" maxOccurs="unbounded"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
    </xs:sequence>
  </xs:complexType>

  <xs:complexType name="attachment">
    <xs:sequence>
      <xs:element name="Description">
        <xs:simpleType>
          <xs:restriction base="token">
            <xs:maxLength value="80"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element name="MimeType">
        <xs:simpleType>
          <xs:restriction base="token">
            <xs:enumeration value="application/pdf"/>
            <xs:enumeration value="text/plain"/>
            <xs:enumeration value="image/gif"/>
            <xs:enumeration value="image/jpeg"/>
            <xs:enumeration value="image/tiff"/>
            <xs:enumeration value="image/bmp"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:choice>
        <xs:element name="HexData">
          <xs:simpleType>
            <xs:list>
              <xs:simpleType>
                <xs:restriction base="xs:hexBinary">
                  <xs:whiteSpace value="collapse"/>
                </xs:restriction>
              </xs:simpleType>
            </xs:list>
          </xs:simpleType>
        </xs:element>
        <xs:element name="Base64Data" type="xs:base64Binary"/>
      </xs:choice>
    </xs:sequence>
  </xs:complexType>

  <!-- Part 7 ============================================================= -->
  <xs:simpleType name="recommendationsTakenToPreventRecurrence">
    <xs:restriction base="xs:string">
      <xs:maxLength value="4000"/>
    </xs:restriction>
  </xs:simpleType>

  <!-- Part 8 ============================================================= -->
  <xs:complexType name="contactInformation">
    <xs:sequence>
      <xs:element name="ContactsName">
        <xs:simpleType>
          <xs:restriction base="token">
            <xs:maxLength value="50"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element name="ContactsTitle" minOccurs="0">
        <xs:simpleType>
          <xs:restriction base="token">
            <xs:maxLength value="50"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element name="BusinessName">
```

```xml
          <xs:simpleType>
            <xs:restriction base="token">
              <xs:maxLength value="80"/>
            </xs:restriction>
          </xs:simpleType>
        </xs:element>
        <xs:element name="BusinessAddress" type="address"/>
        <xs:element name="EmailAddress" type="emailAddress" minOccurs="0"/>
        <xs:element name="PhoneNumber">
          <xs:simpleType>
            <xs:restriction base="token">
              <xs:maxLength value="25"/>
            </xs:restriction>
          </xs:simpleType>
        </xs:element>
        <xs:element name="FaxNumber" minOccurs="0">
          <xs:simpleType>
            <xs:restriction base="token">
              <xs:maxLength value="25"/>
            </xs:restriction>
          </xs:simpleType>
        </xs:element>
        <xs:element name="HazmatRegistrationNumber" minOccurs="0">
          <xs:simpleType>
            <xs:restriction base="token">
              <xs:maxLength value="14"/>
            </xs:restriction>
          </xs:simpleType>
        </xs:element>
        <xs:choice>
          <xs:element name="Preparer">
            <xs:simpleType>
              <xs:restriction base="token">
                <xs:enumeration value="Carrier"/>
                <xs:enumeration value="Shipper"/>
                <xs:enumeration value="Facility owner/operator"/>
              </xs:restriction>
            </xs:simpleType>
          </xs:element>
          <xs:element name="OtherPreparer">
            <xs:simpleType>
              <xs:restriction base="token">
                <xs:maxLength value="50"/>
              </xs:restriction>
            </xs:simpleType>
          </xs:element>
        </xs:choice>
        <xs:element name="Date" type="xs:date" minOccurs="0"/>
      </xs:sequence>
    </xs:complexType>

<!-- ================================================================= -->
<xs:simpleType name="token">
  <xs:restriction base="xs:string">
    <xs:whiteSpace value="collapse"/>
    <xs:minLength value="1"/>
  </xs:restriction>
</xs:simpleType>

<xs:complexType name="empty"/>

<xs:complexType name="address">
  <xs:choice>
    <xs:element name="US_Address">
      <xs:complexType>
        <xs:sequence>
          <xs:element name="Street" type="street" minOccurs="0"/>
          <xs:choice>
            <xs:sequence>
              <xs:element name="City" type="city"/>
              <xs:element name="State" type="state"/>
              <xs:element name="PostalCode" type="postalCode" />
            </xs:sequence>
            <xs:sequence>
              <xs:element name="State" type="state"/>
              <xs:element name="PostalCode" type="postalCode"/>
            </xs:sequence>
            <xs:element name="PostalCode" type="postalCode"/>
          </xs:choice>
        </xs:sequence>
      </xs:complexType>
    </xs:element>
    <xs:element name="NonUS_Address">
      <xs:complexType>
        <xs:sequence>
          <xs:element name="Street" type="street" minOccurs="0"/>
          <xs:element name="City" type="city" minOccurs="0"/>
          <xs:element name="State" type="nonUS_State" minOccurs="0"/>
          <xs:element name="PostalCode" type="postalCode"
                  minOccurs="0"/>
```

```xml
            <xs:element name="Country" type="country"/>
        </xs:sequence>
      </xs:complexType>
    </xs:element>
  </xs:choice>
</xs:complexType>

<xs:simpleType name="country">
  <xs:restriction base="token">
    <xs:maxLength value="25"/>
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="street">
  <xs:restriction base="token">
    <xs:maxLength value="40"/>
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="city">
  <xs:restriction base="token">
    <xs:maxLength value="40"/>
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="county">
  <xs:restriction base="token">
    <xs:maxLength value="25"/>
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="state">
  <xs:restriction base="token">
    <xs:enumeration value="AK - Alaska"/>
    <xs:enumeration value="AL - Alabama"/>
    <xs:enumeration value="AR - Arkansas"/>
    <xs:enumeration value="AZ - Arizona"/>
    <xs:enumeration value="CA - California"/>
    <xs:enumeration value="CO - Colorado"/>
    <xs:enumeration value="CT - Connecticut"/>
    <xs:enumeration value="DC - District of Columbia"/>
    <xs:enumeration value="DE - Delaware"/>
    <xs:enumeration value="FL - Florida"/>
    <xs:enumeration value="GA - Georgia"/>
    <xs:enumeration value="GU - Guam"/>
    <xs:enumeration value="HI - Hawaii"/>
    <xs:enumeration value="IA - Iowa"/>
    <xs:enumeration value="ID - Idaho"/>
    <xs:enumeration value="IL - Illinois"/>
    <xs:enumeration value="IN - Indiana"/>
    <xs:enumeration value="KS - Kansas"/>
    <xs:enumeration value="KY - Kentucky"/>
    <xs:enumeration value="LA - Lousiana"/>
    <xs:enumeration value="MA - Massachusetts"/>
    <xs:enumeration value="MD - Maryland"/>
    <xs:enumeration value="ME - Maine"/>
    <xs:enumeration value="MI - Michigan"/>
    <xs:enumeration value="MN - Minnesota"/>
    <xs:enumeration value="MO - Missouri"/>
    <xs:enumeration value="MS - Mississippi"/>
    <xs:enumeration value="MT - Montana"/>
    <xs:enumeration value="NC - North Carolina"/>
    <xs:enumeration value="ND - North Dakota"/>
    <xs:enumeration value="NE - Nebraska"/>
    <xs:enumeration value="NH - New Hampshire"/>
    <xs:enumeration value="NJ - New Jersey"/>
    <xs:enumeration value="NM - New Mexico"/>
    <xs:enumeration value="NV - Nevada"/>
    <xs:enumeration value="NY - New York"/>
    <xs:enumeration value="OH - Ohio"/>
    <xs:enumeration value="OK - Oklahoma"/>
    <xs:enumeration value="OR - Oregon"/>
    <xs:enumeration value="PA - Pennsylvania"/>
    <xs:enumeration value="PR - Puerto Rico"/>
    <xs:enumeration value="RI - Rhode Island"/>
    <xs:enumeration value="SC - South Carolina"/>
    <xs:enumeration value="SD - South Dakota"/>
    <xs:enumeration value="TN - Tennessee"/>
    <xs:enumeration value="TX - Texas"/>
    <xs:enumeration value="UT - Utah"/>
    <xs:enumeration value="VA - Virginia"/>
    <xs:enumeration value="VI - Virgin Islands"/>
    <xs:enumeration value="VT - Vermont"/>
    <xs:enumeration value="WA - Washington"/>
    <xs:enumeration value="WI - Wisconsin"/>
    <xs:enumeration value="WV - West Virginia"/>
    <xs:enumeration value="WY - Wyoming"/>
    <xs:enumeration value="XX - Unknown"/>
  </xs:restriction>
</xs:simpleType>
```

```xml
<xs:simpleType name="nonUS_State">
  <xs:restriction base="token">
    <xs:maxLength value="30"/>
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="postalCode">
  <xs:restriction base="token">
    <xs:maxLength value="10"/>
  </xs:restriction>
</xs:simpleType>

<!-- Street Address, Mile Marker, Yardname, Airport,
  Body of Water, River Mile -->
<xs:simpleType name="route">
  <xs:restriction base="token">
    <xs:maxLength value="30"/>
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="emailAddress">
  <xs:restriction base="token">
    <xs:pattern value="[\w\.-]+@[\w-]+\.[\w\.-]+"/>
    <xs:maxLength value="80"/>
  </xs:restriction>
</xs:simpleType>

<xs:complexType name="quantity">
  <xs:sequence>
    <xs:element name="Quantity">
      <xs:simpleType>
        <xs:restriction base="xs:decimal">
          <xs:minExclusive value="0"/>
          <xs:totalDigits value="9"/>
          <xs:fractionDigits value="5"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
    <xs:element name="MeasurementUnit">
      <xs:simpleType>
        <xs:restriction base="token">
          <xs:enumeration value="Liquid - Ounce"/>
          <xs:enumeration value="Liquid - Cup"/>
          <xs:enumeration value="Liquid - Pint"/>
          <xs:enumeration value="Liquid - Pound"/>
          <xs:enumeration value="Liquid - Liter"/>
          <xs:enumeration value="Liquid - Quart"/>
          <xs:enumeration value="Liquid - Gallon"/>
          <xs:enumeration value="Liquid - Milligram"/>
          <xs:enumeration value="Liquid - Barrel"/>
          <xs:enumeration value="Liquid - Cubic Centimeter"/>
          <xs:enumeration value="Liquid - Gram"/>
          <xs:enumeration value="Liquid - Kilogram"/>
          <xs:enumeration value="Liquid - Teaspoon"/>
          <xs:enumeration value="Liquid - Tablespoon"/>
          <xs:enumeration value="Liquid - Milliliter"/>
          <xs:enumeration value="Solid - Ounce"/>
          <xs:enumeration value="Solid - Pint"/>
          <xs:enumeration value="Solid - Pound"/>
          <xs:enumeration value="Solid - Quart"/>
          <xs:enumeration value="Solid - Kilogram"/>
          <xs:enumeration value="Solid - Gallon"/>
          <xs:enumeration value="Solid - Ton"/>
          <xs:enumeration value="Solid - Metric Ton"/>
          <xs:enumeration value="Solid - Long Ton"/>
          <xs:enumeration value="Solid - Milligram"/>
          <xs:enumeration value="Solid - Gram"/>
          <xs:enumeration value="Solid - Liter"/>
          <xs:enumeration value="Solid - Teaspoon"/>
          <xs:enumeration value="Solid - Tablespoon"/>
          <xs:enumeration value="Gas - Cubic Centimeter"/>
          <xs:enumeration value="Gas - Milliliter"/>
          <xs:enumeration value="Gas - Cubic Inch"/>
          <xs:enumeration value="Gas - Liter"/>
          <xs:enumeration value="Gas - Pint"/>
          <xs:enumeration value="Gas - Gallon"/>
          <xs:enumeration value="Gas - Cubic Foot"/>
          <xs:enumeration value="Gas - Quart"/>
          <xs:enumeration value="Gas - Yard"/>
          <xs:enumeration value="Gas - Pound"/>
          <xs:enumeration value="Radioactive - Curie"/>
          <xs:enumeration value="Radioactive - Microcurie"/>
          <xs:enumeration value="Radioactive - Millicurie"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
  </xs:sequence>
</xs:complexType>
```

```xml
<xs:complexType name="pressure">
  <xs:sequence>
    <xs:element name="Quantity">
      <xs:simpleType>
        <xs:restriction base="xs:positiveInteger">
          <xs:totalDigits value="4"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
    <xs:element name="MeasurementUnit">
      <xs:simpleType>
        <xs:restriction base="token">
          <xs:enumeration value="psi"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
  </xs:sequence>
</xs:complexType>

<xs:complexType name="thickness">
  <xs:sequence>
    <xs:element name="Quantity">
      <xs:simpleType>
        <xs:restriction base="xs:decimal">
          <xs:minExclusive value="0"/>
          <xs:totalDigits value="4"/>
          <xs:fractionDigits value="3"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
    <xs:element name="MeasurementUnit">
      <xs:simpleType>
        <xs:restriction base="token">
          <xs:enumeration value="inch"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
  </xs:sequence>
</xs:complexType>

<xs:simpleType name="cost">
  <xs:restriction base="token">
    <xs:pattern value="\$\d{1,8}"/>
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="duration">
  <xs:restriction base="token">
    <xs:pattern value="\d{1,3} hour(s)?"/>
  </xs:restriction>
</xs:simpleType>

<!-- Response ========================================================== -->
<xs:element name="IncidentReportResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="CustomerTrackingNumber"
              type="customerTrackingNumber" />
      <xs:element name="IncidentReportNumber"
              type="incidentReportNumber" minOccurs="0"/>
      <xs:element name="IncidentTrackingNumber"
              type="incidentTrackingNumber" minOccurs="0"/>
      <xs:element name="Response">
        <xs:simpleType>
          <xs:restriction base="token">
            <xs:enumeration value="OK"/>
            <xs:enumeration value="WARNING"/>
            <xs:enumeration value="ERROR"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element name="Message" minOccurs="0" maxOccurs="unbounded">
        <xs:complexType>
          <xs:sequence>
            <xs:element name="Type">
              <xs:simpleType>
                <xs:restriction base="token">
                  <xs:enumeration value="MINOR"/>
                  <xs:enumeration value="MAJOR"/>
                  <xs:enumeration value="INFO"/>
                </xs:restriction>
              </xs:simpleType>
            </xs:element>
            <xs:element name="Text" type="token"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

```
</xs:schema>
```

For further information see www.hazdb.net/f5800