National Plan and Provider Enumeration System (NPPES)

Electronic File Interchange (EFI)
Technical Companion Guide

Prepared For



CAVIS

CENTERS for MEDICARE & MEDICAID SERVICES

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## 1 Introduction

#### 1.1 NPPES Overview

The Administrative Simplification provisions of the Health Insurance Portability and Accountability Act of 1996 (HIPAA) mandated the adoption of standard unique identifiers for health care providers and health plans. The Centers for Medicare & Medicaid Services (CMS) commissioned the development of the National Plan and Provider Enumeration System (NPPES) to assign these unique identifiers. The primary purpose for the development of NPPES is to standardize and simplify the process of enumerating providers (and at a future time, health plans) and maintaining their data. The NPPES is a web based system enabling providers across the country to apply for their unique National Provider Identifier (NPI).

#### 1.2 EFI Overview

NPPES Release 1.1 (and later) provides a bulk process for organizations (e.g., health plans, professional associations and other groups) to interact with the application. These organizations typically maintain significant amounts of information about their providers. The EFI process enables the electronic submission of enumeration applications and data change requests for large numbers of providers with minimal manual intervention. Under the current design, the EFI process achieves this goal through the use of text files that follow the XML standard.

## 1.3 Document Purpose

The purpose of this document is to give NPPES Electronic File Interchange (EFI) participants an understanding of the structure of the XML file(s) containing the provider data that are used by the EFI process. The structure of the XML files used by the EFI process is described by a document called the EFI XML schema. The schema contains descriptions of the different data items stored in the XML files along with restrictions on the type of information contained in such items. Section 2 and all its subsections aim at facilitating the understanding of the schema by breaking it down to its constituent data items (elements) and providing a detailed description on the purpose, contents, and restrictions applying to each such item. For an understanding of the EFI process itself, please refer to the EFI user guide and the EFI policy guide, both of which are on the NPPES EFI website. This document is a companion guide to creating and interpreting the Healthcare Provider Information XML transaction file required for the EFI process.

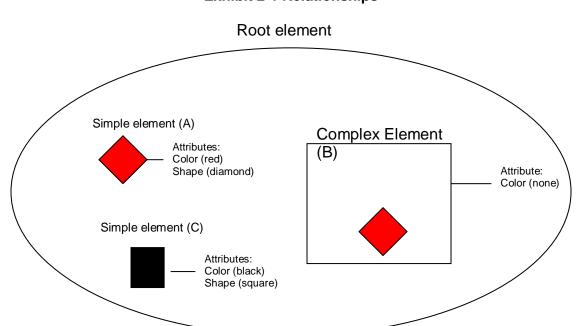
## 2 EFI XML Schema

## 2.1 XML Schemas – Brief Description

The document will use terms like element, attribute, root, required, and Optional which are common when describing the structure and workings of an XML document. The following list briefly describes these terms and the relationship that exists between them:

- An XML schema is essentially a structured text file whose contents are organized in a hierarchical fashion. The contents of the file are organized around the data "element" concept.
- At the bottom of the hierarchy are the "simple" elements, which are units of data that cannot be broken down any further.
- Each simple element consists of attributes (properties) which describe this particular element or unit of data.
- Attributes are not considered to be units of data and therefore cannot exist outside the context of an
  element. Attributes can be required or Optional for that particular element. If a required attribute is
  not provided an element cannot exist. Complex elements make up the rest of the hierarchy, which
  culminates with the "root" element.
- Each complex element consists of attributes and other elements (simple or complex) and the root element encompasses all the elements of the schema directly or indirectly.
- If an element (A) is part of another element (B) then this element (A) is a child of element (B). Element (B) is a parent of element (A). The root element is the parent of all the elements in the schema (directly or indirectly).
- Like attributes, elements can be defined as required or Optional when they're a part of a hierarchy of elements. For example element (B) may or may not need element (A) to exist by itself. Element (A) is Optional to element (B).
- The root element can never be defined as Optional

The following drawing illustrates some of the relationships described above:



**Exhibit 2-1 Relationships** 

The root element consists of two simple elements and one complex element. The complex element consists of one simple element. It also has an attribute that describes it, namely Color.

The diamond and the square are the 2 simple elements of this schema. They are self-contained units of information with two attributes each; Shape and Color.

Attributes and elements can be classified as "required" or "Optional". For example, for the two simple elements, Shape might be a required attribute for that element because it describes the form of the element however, Color might not be perceived as a necessary distinguishing attribute. It is possible to distinguish a square from a diamond even if they were both of the same color. Therefore, Color can be considered as Optional. The same logic applies to elements, simple or complex. Naturally, the root element of an XML schema is never Optional.

Business requirements define the structure of the XML schema and consequently whether elements or attributes in that schema are defined as required or Optional.

#### 2.2 EFI XML Schema Overview

The EFI XML schema is the document that serves as a blueprint for the generation and validation of all XML provider data files used by the EFI process. To facilitate its adoption by the EFI participants, the EFI XML schema leverages existing standards in the healthcare industry. Specifically, the EFI XML schema closely follows the relationship structures of the ASC X12N Healthcare Provider Information (274) 004050 X253 transaction set where relevant to NPPES. The naming of the elements of the EFI XML schema is also based on the naming of the different data items of the 274 transaction set. All XML files containing provider data that will be used by the EFI process will be compared against the EFI XML schema to verify that the contents conform to the definitions and restrictions specified by the schema.

#### 2.3 EFI XML Schema Structure

This section and the following sub-sections provide details on the individual elements comprising the EFI XML Schema. The table below describes the general layout of the schema:

## **Exhibit 2-2 XML Schema Structure: Identifiers**

Identifier	Setting
Schema File Name:	274_NPPES_EFI.xsd
Attribute Form Default:	Unqualified
Element Form Default:	Qualified
Version:	05/07/2007

## **Exhibit 2-3 XML Schema Structure: Elements**

Elements
CMS274
CMS27410200_BHT_BeginningOfHierarchicalTransaction CMS274_HealthCareProviderInformationProviderSiteGroup
CMS27420100_2000A CMS27420300_2100AA_NM1_SubmitterName
CMS27420100_2000C

#### **Elements**

CMS27420100\_2000C\_TRN\_ProviderTracking

CMS27420300\_2100CA

CMS27420300\_2100CA\_NM1\_ProviderName

CMS27420400\_2100CA\_N2\_AdditionalProviderNameInformation

CMS27420500\_2100CA\_PER\_ProviderCommunicationsContact

CMS27420600\_2100CA\_DMG\_ProviderSDemographicInformation

CMS27420700\_2100CA\_API\_RequestStatus

CMS27420900\_2100CA\_DEG\_ProviderSDegreeInformation

CMS27421000\_2100CA\_IND\_ProviderSPlaceOfBirthInformation

CMS27421200\_2100CA\_DTP\_ProviderSActionDate

CMS27421300\_2100CA\_MTX\_RequestStatusAdditionalDetail

CMS27421400\_2100CA\_CRC\_EFIProcessingStatusAdditional

CMS27421500\_2100CA\_PSI\_SubpartInformation

CMS27422100\_2110CA

CMS27422100\_2110CA\_NX1\_ProviderAddressType

CMS27422300\_2110CA\_N3\_ProviderSStreetAddress

CMS27422400\_2110CA\_N4\_ProviderSGeographicLocation

CMS27422600\_2120CA

CMS27422600\_2120CA\_LQ\_ProviderSAreaOfSpecialization

CMS27423200\_2130CA

CMS27423200\_2130CA\_HPL\_ProviderLicenseCertificationRegistration

CMS27423400\_2140CA

CMS27423400 2140CA REF ProviderIdentificationNumbers

CMS27420300\_2100CD

CMS27420300\_2100CD\_NM1\_AffiliatedEntityName

CMS27420500\_2100CD\_PER\_AffiliatedEntityContactInformation

CMS27420600\_2100CD\_DEG\_AffiliatedEntitySCredentials

CMS27421300\_2100CD\_MTX\_AffiliatedEntitySTitle

CMS27420100\_2000D

CMS27420300 2100DA

CMS27420500\_2100DA\_PER\_SiteLocationContactInformation

CMS27422100\_2110DA

CMS27422300\_2110DA\_N3\_SiteLocationStreetAddress

CMS27422400\_2110DA\_N4\_SiteLocationGeographicLocation

CMS27420100\_2000E

CMS27420300\_2100EA

CMS27422600 2120EA

CMS27422600\_2120EA\_LQ\_ProviderGroupSAreaOfSpecialization

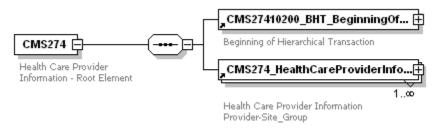
#### 2.3.1 Element: CMS274

CMS274 describes the root element of the EFI XML schema. The root element consists of two child elements as depicted in the diagram below.

#### Note:

- The root element MUST NOT contain any attributes at all (namespaces, schema names, etc.). An EFI XML file containing attributes in its root element will fail EFI XML schema validation. This is important to observe because XML files generated by off-the-shelf XML editors (e.g. XML Spy), often have such attributes automatically appended to their root element. XML files received for EFI processing that fail schema validation will be rejected without any processing. The EFI participant that submitted such a file will be notified via e-mail. No response file is created by the EFI process.
- XML files without this element will fail validation against the EFI XML schema. XML files received
  for EFI processing that fail schema validation will be rejected without any processing. The EFI
  participant that submitted such a file will be notified via e-mail. No response file is created by the EFI
  process.

#### **Exhibit 2-4 Element CMS274 Structure**



#### 2.3.1.1 Child Elements

CMS27410200\_BHT\_BeginningOfHierarchicalTransaction - this element contains the header information of the file. CMS274\_HealthCareProviderInformationProviderSiteGroup - this element contains health care provider information.

#### 2.3.1.2 Annotation

Documentation: Health Care Provider Information - Root Element

#### 2.3.1.3 Source

## 2.3.2 Element: CMS27410200\_BHT\_BeginningOfHierarchicalTransaction

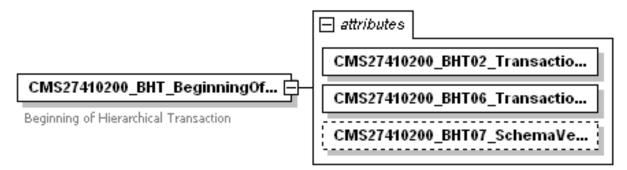
This element contains the header information of the XML file, such as transaction, application type, and xml schema version based on which EFI response file is created. This element is required. There can only be one instance of this element in a given XML file. Last, the element has 3 attributes that are described below:

#### Note:

• XML files without this element will fail validation against the EFI XML schema.

- For any attribute, if the value specified is not in the "allowed values" list or its length exceeds the maximum allowed length, the file will fail schema validation.
- XML files received for EFI processing that fail schema validation will be rejected without any processing. The EFI participant that submitted such a file will be notified via e-mail. No response file is created by the EFI process.

## Exhibit 2-5 Element CMS27410200\_BHT\_BeginningOfHierarchicalTransaction Structure



## 2.3.2.1 Used by

Element: CMS274

## 2.3.2.2 Attributes

## Exhibit 2-6 Element CMS27410200\_BHT\_BeginningOfHierarchicalTransaction Attributes

Name	Туре	Use	Maximum Length	Allowed values	Annotation
CMS27410200_BHT0 2_TransactionSetPurp oseCode	Integer	required	2 digits	11 & 13	Contains the "Transaction set purpose code" value. This value indicates whether the file is a request or a response one.  11 – Response.  13 – Request.  Note: If a value other than 11 or 13 is stored, then the XML file will fail schema validation and as a result it will be rejected by the EFI process. No response file will be created. The EFI participant will be notified via e-mail only.
					For new and change requests this code must be set to 13. If the EFI process receives an XML file storing a value other than 13 (e.g. 11), the EFI process will reject the file. The EFI participant will be notified via e-mail only.  For EFI response files, this code will be set to 11.

Name	Туре	Use	Maximum Length	Allowed values	Annotation
CMS27410200_BHT0 6_TransactionTypeCo de	String	required	2 characters	RK, U5, R1, and R2	Contains the "Transaction Type code" value that indicates whether XML files contain new application or modification requests,
					RK – Enumeration (new request) – required when EFI participant is submitting new provider applications.
					U5 – Update (modify request) – required when the EFI participant is submitting updates to provider records that have already been enumerated.
					R1 – Request for Enumeration Verification – required when the EFI participant is requesting verification of provider NPIs.
					R2 – Response to Request for Enumeration Verification – required when responding to requests for NPI verification.
					Note: The EFI process included with NPPES Release 1.1 accepts only New and Modify requests. An XML file with a transaction type code other than RK and U5 will be rejected. No response file will be generated by the EFI process. The EFI participant will be notified via email only.

Name	Туре	Use	Maximum Length	Allowed values	Annotation
CMS27410200_BHT0 7_SchemaVersion	String	Optional	20 characters	Any valid String	Contains the EFI XML schema file version. EFI response files will contain this value.
					This is an Optional attribute and not required to provide in request files. If request files contain a value in this attribute the value is simply ignored by the EFI process.
					The value for this attribute in response files indicates the EFI xml schema version based on which it is created. For Example, if response file is created based on EFI xml schema version 05/07/2007, this attribute will contain the value 05/07/2007.
					If length of the value provided in this attribute exceeds the maximum allowed (20 characters) then the XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.

## 2.3.2.3 Annotation

Documentation: Beginning of Hierarchical Transaction

## 2.3.2.4 Source

```
<xs:element name="CMS27410200_BHT_BeginningOfHierarchicalTransaction">
 <xs:annotation>
  <xs:documentation>Beginning of Hierarchical Transaction</xs:documentation>
 </xs:annotation>
 <xs:complexType>
  <xs:attribute name="CMS27410200_BHT02_TransactionSetPurposeCode" use="required">
   <xs:simpleType>
    <xs:restriction base="xs:int">
     <xs:totalDigits value="2"/>
     <xs:enumeration value="11"/>
     <xs:enumeration value="13"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27410200_BHT06_TransactionTypeCode" use="required">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="2"/>
     <xs:enumeration value="RK"/>
     <xs:enumeration value="U5"/>
     <xs:enumeration value="R1"/>
     <xs:enumeration value="R2"/>
```

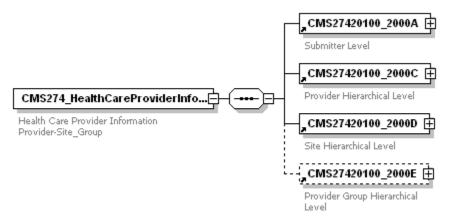
```
</xs:restriction>
  </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27410200_BHT07_SchemaVersion" use="Optional ">
    <xs:simpleType>
    <xs:restriction base="xs:String ">
        <xs:maxLength value="20"/>
        </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
  </xs:attribute>
  </xs:complexType>
  </xs:element>
```

## 2.3.3 Element: CMS274\_HealthCareProviderInformationProviderSiteGroup

This element contains Health Care Provider information and it is required by the EFI XML schema. Each XML data file must have at least one occurrence of this element. Each occurrence represents one provider application. The schema does not define an upper limit on the number of occurrences for this element. This element has 4 child elements as depicted in the diagram below.

**Note:** XML files without this element will fail validation against the EFI XML schema. XML files received for EFI processing that fail schema validation will be rejected without any processing. The EFI participant that submitted such a file will be notified via e-mail. No response file is created by the EFI process.

Exhibit 2-7 Element CMS274\_HealthCareProviderInformationProviderSiteGroup Structure



#### 2.3.3.1 Child Elements

- CMS27420100\_2000A: this element is required and contains the EFI Organization ID.
- CMS27420100\_2000C: this element is required and contains provider details, such as Tracking ID, Name details, and Affiliated Entity details.
- CMS27420100\_2000D: this element is required and contains provider Practice Location details.
- CMS27420100\_2000E: this element is Optional and contains provider Group Taxonomy details.

## 2.3.3.2 Used by

Element: CMS274

#### 2.3.3.3 Annotation

Documentation: Health Care Provider Information Provider-Site\_Group

#### 2.3.3.4 Source

#### 2.3.4 Element: CMS27420100\_2000A

This element is defined as Optional by the EFI XML schema. It acts as a container for other information, such as the EFI participant (organization) ID. This element contains a single child element; CMS27420300 2100AA NM1 SubmitterName and it can occur more than once in an XML file.

**Note:** XML files without this element will fail validation against the EFI XML schema. XML files received for EFI processing that fail schema validation will be rejected without any processing. The EFI participant that submitted such a file will be notified via e-mail. No response file is created by the EFI process.

#### Exhibit 2-8 Element CMS27420100\_2000A Structure



#### 2.3.4.1 Child Elements

CMS27420300\_2100AA\_NM1\_SubmitterName

#### 2.3.4.2 Used by

Element: CMS274\_HealthCareProviderInformationProviderSiteGroup

#### 2.3.4.3 Annotation

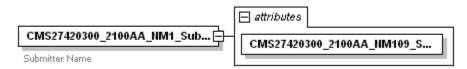
Documentation: Submitter Level

#### 2.3.4.4 Source

# 2.3.5 Element: CMS27420300\_2100AA\_NM1\_SubmitterName

This element is a non-required child of **CMS27420100\_2000A**. This element's attribute contains the EFI Organization (participant) ID as depicted below:

# Exhibit 2-9 Element CMS27420300\_2100AA\_NM1\_SubmitterName Structure



## 2.3.5.1 Used by

Element: :CMS27420100\_2000A CMS27420300\_2100AA

## 2.3.5.2 Attributes

Name	Туре	Use	Maximum Length	Allowed values	Annotation
CMS27420300_ 2100AA_NM109 _SubmitterIdentifier	String	Required	Length 80 characters	Any valid String.	Contains the EFI Organization (participant) ID. The EFI Organization ID is the unique identifier issued by the Enumerator upon the successful completion of this organization's approval process. Each organization that seeks to participate in the EFI process, must seek approval from the Enumerator.  Note: This information is maintained at the provider record level in the XML file. In other words, the EFI Organization ID must be provided for each record in the EFI input file. The EFI process checks the EFI Organization ID provided in each of the provider records against the EFI organization ID created by NPPES upon this organization's approval by the Enumerator. The processing will continue for as long as the EFI
					Organization ID values stored in the XML file match the IDs maintained by NPPES. Any discrepancies will cause the XML file to be rejected by the EFI process without any further action taken on the file. No response file is generated by the EFI process. The EFI participant is notified via e-mail only. This is an example of the validation steps performed by the EFI process that cannot be performed by the EFI XML schema.

#### 2.3.5.3 Annotation

Documentation: Submitter Name

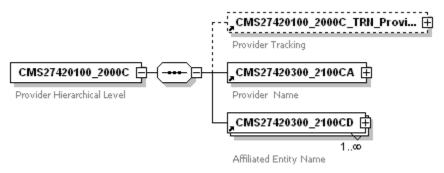
#### 2.3.5.4 Source

## 2.3.6 Element: CMS27420100 2000C

This element is required by the EFI XML schema. It acts as a container for other information, such as Provider Tracking ID, provider personal details, contact person, and/or authorized representative information. This element has three child elements as depicted in the diagram and it can occur only once within a provider's record in the XML file.

**Note:** XML files without this element will fail validation against the EFI XML schema. XML files received for EFI processing that fail schema validation will be rejected without any processing. The EFI participant that submitted such a file will be notified via e-mail. No response file is created by the EFI process.

Exhibit 2-10 Element CMS27420100\_2000C Structure



#### 2.3.6.1 Child Elements

- CMS27420100\_2000C\_TRN\_ProviderTracking: contains Provider Tracking Id details.
- CMS27420300\_2100CA: contains Provider personal details.
- CMS27420300\_2100CD: contains Provider Authorized Official/Contact Person/Provider Other Name details.

#### 2.3.6.2 Used by

Element: CMS274\_HealthCareProviderInformationProviderSiteGroup

#### 2.3.6.3 Annotation

Documentation: Provider Hierarchical Level

#### 2.3.6.4 Source

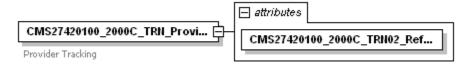
```
<xs:element name="CMS27420100_2000C">
<xs:annotation>
  <xs:documentation>Provider Hierarchical Level</xs:documentation>
  </xs:annotation>
  <xs:complexType>
   <xs:sequence>
    <xs:element ref="CMS27420100_2000C_TRN_ProviderTracking" minOccurs="0"/>
   <xs:element ref="CMS27420300_2100CA"/>
    <xs:element ref="CMS27420300_2100CD" maxOccurs="unbounded"/>
    </xs:sequence>
   </xs:complexType>
</xs:element>
```

## 2.3.7 Element: CMS27420100\_2000C\_TRN\_ProviderTracking

This element is Optional and has one attribute that contains the Provider Tracking ID (see diagram below).

**Note:** This element does not exist in the case of new application requests and it is only Optional in Change Request applications. It should be noted that if this element does exist in the provider record, then its attribute must be populated. Please refer to the table below for additional details.

Exhibit 2-11 Element CMS27420100\_2000C\_TRN\_ProviderTracking Structure



## 2.3.7.1 Used by

Element: CMS27420100\_2000C

## 2.3.7.2 Attribute(s)

Name	Туре	Use	Maximum Length	Allowed Values	Annotation
CMS27420100_ 2000C_TRN02_ ReferenceIdentification	String	Required	50 Characters.	Any valid String.	This attribute contains the Provider Tracking ID. The Provider Tracking ID is issued by NPPES upon successful submission of the application to NPPES through the EFI process.
					Note: Provider Tracking IDs are not applicable for New application requests. However, in the case of Change requests, this attribute might get populated.
					The EFI process does not use the value of the Provider Tracking ID in a request XML file because it relies on the provider's NPI number to successfully perform change request operations on records.

## 2.3.7.3 Annotation

Documentation: Provider Tracking

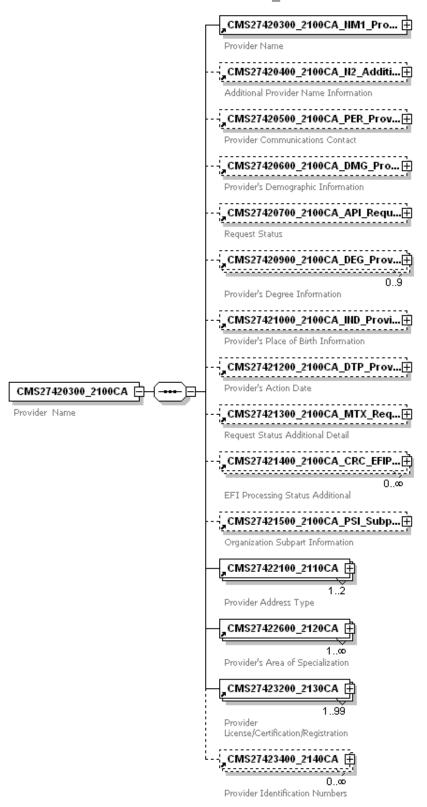
#### 2.3.7.4 Source

## 2.3.8 Element: CMS27420300\_2100CA

This element is required by the EFI XML schema. It acts as a container for provider personal information, such as provider name, birth, credentials, mailing address telephone numbers, and so on. It consists of 14 simpler elements (or child elements). Please see the table below for additional information.

**Note:** XML files without this element will fail validation against the EFI XML schema. XML files received for EFI processing that fail schema validation will be rejected without any processing. The EFI participant that submitted such a file will be notified via e-mail. No response file is created by the EFI process.

Exhibit 2-12 Element CMS27420300 2100CA Structure



#### 2.3.8.1 Child Elements

- CMS27420300\_2100CA\_NM1\_ProviderName: this element contains Provider Name details, such as first name, last name, organization name, etc.
- CMS27420400\_2100CA\_N2\_AdditionalProviderNameInformation: this element contains Provider Additional Name details.
- CMS27420500\_2100CA\_PER\_ProviderCommunicationsContact: this element contains provider information, such as telephone number, telephone extension etc., for the provider's mailing address.
- CMS27420600\_2100CA\_DMG\_ProviderSDemographicInformation: this element contains provider demographic information, such as date of birth and gender.
- CMS27420700\_2100CA\_API\_RequestStatus: this element contains information pertaining to application statuses, such as Activate, Pended
- CMS27420900\_2100CA\_DEG\_ProviderSDegreeInformation: this element contains provider degree/credential details.
- CMS27421000\_2100CA\_IND\_ProviderSPlaceOfBirthInformation: this element contains provider place of birth information.
- CMS27421200\_2100CA\_DTP\_ProviderSActionDate: this element contains the application enumeration date.
- CMS27421400\_2100CA\_CRC\_EFIProcessingStatusAdditional: this element contains information pertaining to an application's processing status that indicates for example, whether an application has been accepted by EFI for further processing or whether it has failed any initial validation errors, and so on.
- CMS27421500\_2100CA\_PSI\_SubpartInformation: this element contains Organization Subpart information.
- CMS27422100\_2110CA: this is a container element that maintains information related to a provider's mailing address, such as street address, geographic location, etc
- CMS27422600\_2120CA: this is a repeatable element that contains provider taxonomy information
- CMS27423200\_2130CA: this is a repeatable element that contains provider license/certification/registration information
- CMS27423400\_2140CA: this is a repeatable element that contains provider other identification and SSN/ITIN (or EIN) number information.

#### 2.3.8.2 Used by

Element: CMS27420100 2000C

#### 2.3.8.3 Annotation

Documentation: Provider Name

#### 2.3.8.4 Source

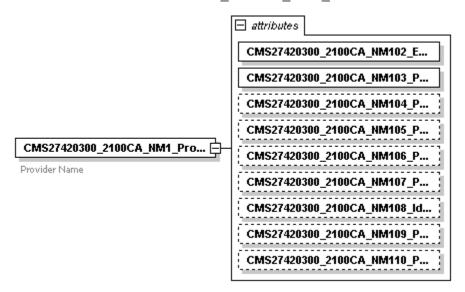
```
<xs:element ref="CMS27420500_2100CA_PER_ProviderCommunicationsContact" minOccurs="0"/>
   <xs:element ref="CMS27420600 2100CA DMG ProviderSDemographicInformation" minOccurs="0"/>
   <xs:element ref="CMS27420700_2100CA_API_RequestStatus" minOccurs="0"/>
   <xs:element ref="CMS27420900 2100CA DEG ProviderSDegreeInformation" minOccurs="0"</p>
maxOccurs="9"/>
   <xs:element ref="CMS27421000 2100CA IND ProviderSPlaceOfBirthInformation" minOccurs="0"/>
   <xs:element ref="CMS27421200 2100CA DTP ProviderSActionDate" minOccurs="0"/>
   <xs:element ref="CMS27421400_2100CA_CRC_EFIProcessingStatusAdditional" minOccurs="0"</p>
   maxOccurs="unbounded/>
   <xs:element ref="CMS27421500_2100CA_PSI_SubpartInformation" minOccurs="0"/>
   <xs:element ref="CMS27422100 2110CA" maxOccurs="2"/>
   <xs:element ref="CMS27422600_2120CA" maxOccurs="unbounded"/>
   <xs:element ref="CMS27423200 2130CA" maxOccurs="99"/>
   <xs:element ref="CMS27423400_2140CA" minOccurs="0" maxOccurs="unbounded"/>
  </xs:sequence>
 </xs:complexType>
</xs:element>
```

## 2.3.9 Element: CMS27420300\_2100CA\_NM1\_ProviderName

The Provider Name element is required by the EFI XML schema. It consists of attributes containing information, such as Provider Entity Type, Provider Name, NPI (National Provider Identification), etc.

**Note:** XML files without this element will fail validation against the EFI XML schema. XML files received for EFI processing that fail schema validation will be rejected without any processing. The EFI participant that submitted such a file will be notified via e-mail. No response file is created by the EFI process.

Exhibit 2-13 Element CMS27420300\_2100CA\_NM1\_ProviderName Structure



## 2.3.9.1 Used by

Element: CMS27420300 2100CA

#### 2.3.9.2 Attributes

Name	Туре	Use	Maximum Length	Allowed Values	Annotation
CMS27420300_ 2100CA_NM102 _EntityTypeQuali	Integer	Required	1	1 or 2	This attribute contains the code value that indicates the Entity Type of a provider application.
fier					Entity Type1 indicates an Individual Provider application.
					Entity Type 2 indicates an Organization Provider application.
					Note: An XML file containing provider records where this attribute is set to a value other than 1 or 2, will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.
CMS27420300_ 2100CA_NM103 _ProviderLastOr	String	Required	70	Any valid String	This attribute contains the Provider Last Name or Organization name depending on the entity type of the provider record.
OrganizationNa me					If the provider record belongs to an individual (Entity Type is 1), then the attribute stores the value of the provider's last name. Otherwise, the attribute stores the value of the organization name.
					Note:
					Entity Type 1:
					If the length of the Provider Last Name exceeds the maximum allowed (70 characters) then the XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.
					For individual providers, the maximum length for this field allowed by NPPES is 35 characters. If the length of the value stored in this attribute is more than 35 characters then this particular provider records will fail pre-validation and marked as rejected by the EFI process. The record will be marked as rejected with an error code "01" in the response file.
					Entity Type 2:
					If the length of the Organization Name exceeds the maximum allowed (70 characters) then the XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.

Name	Туре	Use	Maximum Length	Allowed Values	Annotation
CMS27420300_ 2100CA_NM104 _ProviderFirstNa me	String	Optional	35	Any valid String	This attribute contains the Provider First Name.  Note:  • This field is marked as Optional by the EFI XML schema. NPPES however requires this information if the provider is an Entity Type 1 (individual). It is the EFI process that performs this validation. If the application record belongs to an individual provider and this attribute is not populated, the EFI process will mark the record as rejected with an error code "02" in the response file.  • If the length of the provider first name exceeds the allowed maximum (35 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.  • NPPES allows a provider's first name to be up to 20 characters. If the length of the provider first name exceeds the maximum allowed by NPPES, the EFI process will mark this record as rejected with an error code "01" in the response file.
CMS27420300_ 2100CA_NM105 _ProviderMiddle Name	String	Optional	25	Any valid String	This attribute contains the Provider Middle Name.  Note:  If the length of the provider middle name exceeds the maximum allowed (25 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.  NPPES allows the provider middle name to be up to 20 characters long. If the length of the provider middle name exceeds the maximum allowed by NPPES, the EFI process will mark this record as rejected with an error code "01" in the response file.

Name	Туре	Use	Maximum Length	Allowed Values	Annotation
CMS27420300_ 2100CA_NM106 _ProviderNameP refix	String	Optional	10	Ms. , Mr. , Miss, Mrs. , Dr. , and Prof.	This attribute contains the Provider Name Prefix values.  This attribute is applicable to Entity Type 1 provider records only.  Note:  If the length of the provider name prefix value exceeds the maximum allowed (10 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.  Entity Type 1:  NPPES accepts only the values listed in the "Allowed Values." If the value stored in the attribute is not in the list then the EFI process will mark this record as rejected with an error code "01" in the response file.
CMS27420300_ 2100CA_NM107 _ProviderNameS uffix	String	Optional	10	Jr. , Sr. , I, II, III, IV, V, VI, VII, VIII, IX, and X.	The EFI process ignores this attribute.  This attribute contains the Provider Name Suffix values.  Note:  If the length of the provider name suffix value exceeds the maximum allowed (10 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.  Entity Type 1:  NPPES accepts only the values listed in the "Allowed Values." If the value stored in the attribute is not in the list then the EFI process will mark this record as rejected with an error code "01" in the response file.  Entity Type 2:  The EFI process ignores this attribute

Name	Туре	Use	Maximum Length	Allowed Values	Annotation
CMS27420300_ 2100CA_NM108 _IdentificationCo deQualifier	String	Optional	2	24 – Employer's Identification Number, 34 – Social Security Number (SSN), FI – Federal Taxpayer's Identification Number (ITIN), TA – Taxpayer ID Number, UP – Unique Physician Identification Number, XX – Health Care Financing Administratio n National Provider Identifier (NPI).	This attribute stores the type of the ID for this provider record.  If the XML file contains change requests, this attribute must be set to "XX" (NPI)  Note:  If the attribute contains code values other than the ones specified in the "Allowed Values" list then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.  New Request – If the attribute contains the code value "XX" and the NPI is also provided in the provider record then the EFI process will mark this record as rejected with an error code "01" in the response file.  Change Request – The NPI number is required in this case. If the attribute does not contain "XX" then the EFI process will mark this record as rejected with an error code "01" in the response file.

Name	Туре	Use	Maximum Length	Allowed Values	Annotation
CMS27420300_ 2100CA_NM109 _ProviderIdentifi er	String	Optional	80	Any valid String.	For Change Requests, this attribute contains the Provider NPI (National Provider Identification) provided by NPPES when this application became originally enumerated. The NPI is not applicable to New Application request XML files.
					Note:  • If the attribute contains identifiers with
					lengths exceeding the maximum allowed (80 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.
					New Requests – the attribute must not store an NPI value. If an NPI is provided then the EFI process will mark this record as rejected with an error code "01" in the response file.
					Change Requests – the attribute must store an NPI value. If an NPI is not provided then the EFI process will mark this record as rejected with an error code "01" in the response file. The EFI process will also mark the record as rejected with an error code "10" in the response file if it cannot find a corresponding record in NPPES whose NPI is the same as the one stored in the XML file.

Name	Туре	Use	Maximum Length	Allowed Values	Annotation
CMS27420300_ 2100CA_NM110 _ProviderNewOr ganizationName	String	Optional	70	Any valid String	This is an Optional attribute that contains the Organization's new name.  If the provider record belongs to an individual (Entity Type is 1), then this attribute value will be ignored. Otherwise, the attribute stores the value of the organization's new name.
					Starting with NPPES Release R1.6 the Organization Name can be changed with an EFI change request. However, for a successful change of Organization name, the old Organization Name must match the existing Organization Name in the NPPES system. If not matched then the EFI process will mark such record as rejected with an error code "10" in the response file.
					For Entity Type 2, if the length of the Organization Name exceeds the maximum allowed (70 characters) then the XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.

#### 2.3.9.3 Annotation

Documentation: Provider Name

## 2.3.9.4 Source

```
<xs:element name="CMS27420300_2100CA_NM1_ProviderName">
 <xs:annotation>
  <xs:documentation>Provider Name</xs:documentation>
 </xs:annotation>
 <xs:complexType>
  <xs:attribute name="CMS27420300_2100CA_NM102_EntityTypeQualifier" use="required">
   <xs:simpleType>
    <xs:restriction base="xs:int">
     <xs:totalDigits value="1"/>
     <xs:enumeration value="1"/>
     <xs:enumeration value="2"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27420300_2100CA_NM103_ProviderLastOrOrganizationName" use="required">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="70"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27420300_2100CA_NM104_ProviderFirstName" use="Optional">
   <xs:simpleType>
```

```
<xs:restriction base="xs:String ">
   <xs:minLength value="1"/>
   <xs:maxLength value="35"/>
  </xs:restriction>
 </xs:simpleType>
</xs:attribute>
<xs:attribute name="CMS27420300_2100CA_NM105_ProviderMiddleName" use="Optional">
 <xs:simpleType>
  <xs:restriction base="xs:String ">
   <xs:minLength value="1"/>
   <xs:maxLength value="25"/>
  </xs:restriction>
 </xs:simpleType>
</xs:attribute>
<xs:attribute name="CMS27420300_2100CA_NM106_ProviderNamePrefix" use="Optional">
 <xs:simpleType>
  <xs:restriction base="xs:String ">
   <xs:minLength value="1"/>
   <xs:maxLength value="10"/>
  </xs:restriction>
 </xs:simpleType>
</xs:attribute>
<xs:attribute name="CMS27420300_2100CA_NM107_ProviderNameSuffix" use="Optional">
 <xs:simpleType>
  <xs:restriction base="xs:String ">
   <xs:minLength value="1"/>
   <xs:maxLength value="10"/>
  </xs:restriction>
 </xs:simpleType>
</xs:attribute>
<xs:attribute name="CMS27420300_2100CA_NM108_IdentificationCodeQualifier" use="Optional">
 <xs:simpleType>
  <xs:restriction base="xs:String ">
   <xs:maxLength value="2"/>
   <xs:enumeration value="24"/>
   <xs:enumeration value="34"/>
   <xs:enumeration value="FI"/>
   <xs:enumeration value="TA"/>
   <xs:enumeration value="UP"/>
   <xs:enumeration value="XX"/>
  </xs:restriction>
 </xs:simpleType>
</xs:attribute>
<xs:attribute name="CMS27420300_2100CA_NM109_ProviderIdentifier" use="Optional">
 <xs:simpleType>
  <xs:restriction base="xs:String ">
   <xs:maxLength value="80"/>
  </xs:restriction>
 </xs:simpleType>
</xs:attribute>
<xs:attribute name="CMS27420300_2100CA_NM110_ProviderNewOrganizationName" use="Optional">
 <xs:simpleType>
  <xs:restriction base="xs:String ">
   <xs:maxLength value="70"/>
  </xs:restriction>
 </xs:simpleType>
```

</xs:attribute>
</xs:complexType>
</xs:element>

# 2.3.10 Element: CMS27420400\_2100CA\_N2\_AdditionalProviderNameInformation

This element is Optional in the EFI XML schema. It has one attribute that contains the Provider Other Name Type code description as indicated below.

# Exhibit 2-14 Element CMS27420400\_2100CA\_N2\_AdditionalProviderNameInformation Structure



# 2.3.10.1 Used by

Element: CMS27420300\_2100CA

#### 2.3.10.2 Attributes

Exhibit 2-15 Element CMS27420400\_2100CA\_N2\_AdditionalProviderNameInformation Attributes

Name	Туре	Use	Maximum Length	Allowed Values	Annotation
CMS27420400_ 2100CA_N202_ ProviderDoingB usinessAsOrTra deName	String	Optional	60	Entity Type 1: Former Name, Professional Name, Other Name, and Current Name Entity Type 2: Doing Business As, Former Legal Business Name, Other Name, and Current Name.	This attribute contains Provider Other Name Type code description. This value is required if the Provider Other Name is provided. Note:  If the attribute contains a value with length exceeding the maximum allowed (60 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.  If the attribute contains values other than the ones specified in the "Allowed Values" list then the EFI process will mark this record as rejected with an error code "01" in the response file.

#### 2.3.10.3 Annotation

Documentation: Additional Provider Name Information

#### 2.3.10.4 Source

<xs:element name="CMS27420400\_2100CA\_N2\_AdditionalProviderNameInformation">
<xs:annotation>

<xs:documentation>Additional Provider Name Information

```
</xs:annotation>
<xs:complexType>
 <xs:attribute name="CMS27420400_2100CA_N202_ProviderDoingBusinessAsOrTradeName" use="Optional">
  <xs:simpleType>
   <xs:restriction base="xs:String ">
    <xs:maxLength value="60"/>
   </xs:restriction>
```

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27420500_ 2100CA_PER03 _Communication NumberQualifier	String	Optional	2	TE – Telephone Number EM – Electronic Mail.	This attribute contains the code value that describes the type of information being collected. The "Allowed Values" column indicates that there can only be 2 types of information, telephone number or email address.  Note: If the attribute contains values other than the ones specified in the "Allowed Values" list then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.

CMS27420500_ 2100CA_PER04 _Communication Number	String	Optional	256	Any valid String	This attribute contains the actual data value corresponding to the code mentioned above.  Note:  If the attribute contains a value with length exceeding the maximum allowed (256 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via email only.  If the code is "TE", this attribute contains the mailing address telephone Number; otherwise, the attribute will store the provider's email address. The EFI process however, will ignore the e-mail address.  NPPES does not require mailing address telephone numbers. If however, the mailing address phone number is provided, it must be represented as a 10 digit number. Otherwise the EFI process will mark this record as rejected with an error code "01" in the response file.  Example:  Acceptable telephone number format: 7032672269
					Unacceptable telephone number formats: 703-267-2269 or 703/267/2269 or 703267229, etc.
CMS27420500_ 2100CA_PER04 _Communication Number (continued)					<ul> <li>NPPES requires that telephone numbers of foreign mailing addresses not exceed 20 numeric characters. If the attribute contains a foreign telephone number that exceeds the maximum NPPES limit, then the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.</li> <li>NPPES stores only 1 mailing address telephone number. The EFI process ignores any additional telephone numbers that may be provided.</li> </ul>

CMS27420500_ 2100CA_PER05 _Communication NumberQualifier	String	Optional	2	TE – Telephone Number EX – Telephone Extension EM – Electronic Mail FX – Facsimile.	This attribute contains the code value that describes the type of information being collected. The "Allowed Values" column indicates that there can only be up to 4 types of information, telephone number, email address, telephone extension, and facsimile.
					This attribute was added in order to store additional phone numbers, fax number, e-mail addresses, or telephone extensions for a particular mailing address.
					Note: If the attribute contains values other than the ones specified in the "Allowed Values" list then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.

2100CA_PER06 _Communication Number			data value corresponding to the code mentioned above.  Note:  If the attribute contains a value with length exceeding the maximum allowed (256 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via email only.  If the code is "TE" this attribute contains an additional mailing address telephone number, if the code is "EX" this attribute contains the telephone extension number, if the code is "EM" this attribute contains electronic mail address, and last, if the code is "FX" this attribute contains the mailing
			address Fax number.  • For formatting requirements of mailing address telephone numbers, see annotation comments of the CMS27420500_2100CA_PER04_CommunicationNumber attribute listed above.  • The EFI process ignores e-mail addresses for mailing addresses.
			Mailing address fax numbers are also Optional. However, if the value is provided, it must be represented as a 10 digit number. Otherwise the EFI process will mark this record as rejected with error code "01" in the response file.

CMS27420500_ 2100CA_PER06 _Communication Number (continued)					NPPES requires that fax numbers of foreign mailing addresses not exceed 20 numeric characters. If the attribute contains a foreign fax number that exceeds the maximum NPPES limit, then the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.
					Example: Accepted fax number(s):
					7032672259
					Unacceptable fax number(s): 703-267-2259 or 703/267/2259 or 703267229, etc.
					NPPES stores only 1 mailing address telephone number, extension, and fax number. The EFI process ignores any additional telephone numbers, extensions, fax numbers that may be provided.
CMS27420500_ 2100CA_PER07	String	Optional	2	TE – Telephone Number	See annotation comments for attribute
_Communication NumberQualifier				EX – Telephone Extension	CMS27420500_2100CA_PER05_Co mmunicationNumberQualifier.
				EM – Electronic Mail	
				FX – Facsimile.	
CMS27420500_ 2100CA_PER08 _Communication Number	String	Optional	256	Any valid String	See annotation comments for attribute CMS27420500_2100CA_PER06_CommunicationNumber.

<sup>&</sup>lt;/xs:simpleType>

# 2.3.11 Element: CMS27420500\_2100CA\_PER\_ProviderCommunicationsContact

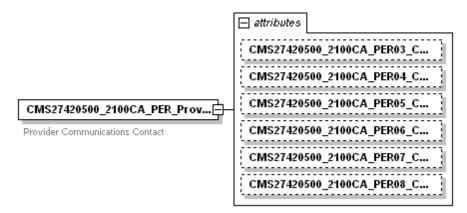
This element contains additional information about a provider's mailing address, such as the mailing address telephone number, telephone extension, and so on. The element is Optional.

<sup>&</sup>lt;/xs:attribute>

<sup>&</sup>lt;/r></re></re>

<sup>&</sup>lt;/xs:element>

# Exhibit 2-16 Element CMS27420500\_2100CA\_PER\_ProviderCommunicationsContact Structure



# 2.3.11.1 Used by

Element: CMS27420300\_2100CA

#### 2.3.11.2 Attributes

# Exhibit 2-17 Element CMS27420500\_2100CA\_PER\_ProviderCommunicationsContact **Attributes**

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27420500_ 2100CA_PER03 _Communication NumberQualifier	String	Optional	2	TE – Telephone Number EM – Electronic Mail.	This attribute contains the code value that describes the type of information being collected. The "Allowed Values" column indicates that there can only be 2 types of information, telephone number or email address.  Note: If the attribute contains values other than the ones specified in the "Allowed Values" list then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27420500_ 2100CA_PER04 _Communication Number	String	Optional	256	Any valid String	This attribute contains the actual data value corresponding to the code mentioned above.  Note:  If the attribute contains a value with length exceeding the maximum allowed (256 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via email only.  If the code is "TE", this attribute contains the mailing address telephone Number; otherwise, the attribute will store the provider's email address. The EFI process however, will ignore the e-mail address.  NPPES does not require mailing address telephone numbers. If however, the mailing address phone number is provided, it must be represented as a 10 digit number. Otherwise the EFI process will mark this record as rejected with an error code "01" in the response file.  Example:  Acceptable telephone number format: 7032672269  Unacceptable telephone number formats: 703-267-2269 or 703/267/2269 or 703/267/2269 or 703/267/2269 or 703/267/2269 etc.
CMS27420500_ 2100CA_PER04 _Communication Number (continued)					<ul> <li>NPPES requires that telephone numbers of foreign mailing addresses not exceed 20 numeric characters. If the attribute contains a foreign telephone number that exceeds the maximum NPPES limit, then the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.</li> <li>NPPES stores only 1 mailing address telephone number. The EFI process ignores any additional telephone numbers that may be provided.</li> </ul>

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27420500_ 2100CA_PER05 _Communication NumberQualifier	String	Optional	2	TE – Telephone Number EX – Telephone Extension EM – Electronic Mail FX – Facsimile.	This attribute contains the code value that describes the type of information being collected. The "Allowed Values" column indicates that there can only be up to 4 types of information, telephone number, email address, telephone extension, and facsimile.  This attribute was added in order to store additional phone numbers, fax number, e-mail addresses, or telephone extensions for a particular mailing address.  Note: If the attribute contains values other than the ones specified in the "Allowed Values" list then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27420500_ 2100CA_PER06 _Communication Number	String	Optional	256	Any valid String	This attribute contains the actual data value corresponding to the code mentioned above.  Note:
					If the attribute contains a value with length exceeding the maximum allowed (256 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via email only.
					<ul> <li>If the code is "TE" this attribute contains an additional mailing address telephone number, if the code is "EX" this attribute contains the telephone extension number, if the code is "EM" this attribute contains electronic mail address, and last, if the code is "FX" this attribute contains the mailing address Fax number.</li> </ul>
					<ul> <li>For formatting requirements of mailing address telephone numbers, see annotation comments of the CMS27420500_2100CA_PER04_ CommunicationNumber attribute listed above.</li> </ul>
					<ul> <li>The EFI process ignores e-mail addresses for mailing addresses.</li> </ul>
					<ul> <li>Mailing address fax numbers are also Optional. However, if the value is provided, it must be represented as a 10 digit number. Otherwise the EFI process will mark this record as rejected with error code "01" in the response file.</li> </ul>

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27420500_ 2100CA_PER06 _Communication Number (continued)					<ul> <li>NPPES requires that fax numbers of foreign mailing addresses not exceed 20 numeric characters. If the attribute contains a foreign fax number that exceeds the maximum NPPES limit, then the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.  Example:         Accepted fax number(s): 7032672259         Unacceptable fax number(s): 703-267-2259 or 703/267/2259 or 703267229, etc.</li> <li>NPPES stores only 1 mailing address telephone number, extension, and fax number. The EFI process ignores any additional telephone numbers,</li> </ul>
					extensions, fax numbers that may be provided.
CMS27420500_ 2100CA_PER07 _Communication NumberQualifier	String	Optional	2	TE – Telephone Number EX – Telephone Extension EM – Electronic Mail FX – Facsimile.	See annotation comments for attribute CMS27420500_2100CA_PER05_CommunicationNumberQualifier.
CMS27420500_ 2100CA_PER08 _Communication Number	String	Optional	256	Any valid String	See annotation comments for attribute CMS27420500_2100CA_PER06_CommunicationNumber.

### 2.3.11.3 Annotation

Documentation: Provider Communications Contact

## 2.3.11.4 Source

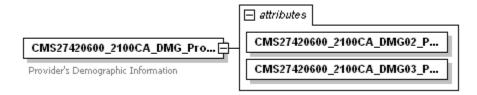
- <xs:element name="CMS27420500\_2100CA\_PER\_ProviderCommunicationsContact">
- <xs:annotation>
- <xs:documentation>Provider Communications Contact</xs:documentation>
- </xs:annotation>
- <xs:complexType>
- <xs:attribute name="CMS27420500\_2100CA\_PER03\_CommunicationNumberQualifier" use="Optional">
   <xs:simpleType>
  - <xs:restriction base="xs:String ">
  - <xs:maxLength value="2"/>

```
<xs:enumeration value="EM"/>
     <xs:enumeration value="TE"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27420500_2100CA_PER04_CommunicationNumber" use="Optional">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="256"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27420500 2100CA PER05 CommunicationNumberQualifier" use="Optional">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="2"/>
     <xs:enumeration value="EM"/>
     <xs:enumeration value="EX"/>
     <xs:enumeration value="FX"/>
     <xs:enumeration value="TE"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27420500 2100CA PER06 CommunicationNumber" use="Optional">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="256"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27420500_2100CA_PER07_CommunicationNumberQualifier" use="Optional">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="2"/>
     <xs:enumeration value="EM"/>
     <xs:enumeration value="EX"/>
     <xs:enumeration value="FX"/>
     <xs:enumeration value="TE"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27420500_2100CA_PER08_CommunicationNumber" use="Optional">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="256"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
 </xs:complexType>
</xs:element>
```

# 2.3.12 Element: CMS27420600\_2100CA\_DMG\_ProviderSDemographicInformation

This element contains individual Provider Demographic Information, such as birth date and gender. The element is defined as Optional in the EFI XML schema because it is not used for Entity Type 2 providers (organizations).

# Exhibit 2-18 Element CMS27420600\_2100CA\_DMG\_ProviderSDemographicInformation Structure



# 2.3.12.1 Used by

Element: CMS27420300\_2100CA

## 2.3.12.2 Attributes

# Exhibit 2-19 Element CMS27420600\_2100CA\_DMG\_ProviderSDemographicInformation Attributes

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27420600_ 2100CA_DMG0 2_ProviderBirth Date	String	Required	35	Any valid String.	<ul> <li>This attribute contains the Provider Birth Date.</li> <li>Note:</li> <li>If the attribute contains a value with length exceeding the maximum allowed (35 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.</li> <li>Provider date of birth is required for Entity Type 1 providers. If the value is not provided the EFI process will mark this record as rejected with error code "02" in the response file.</li> <li>The EFI process validates the Provider date of birth as well. If the value stored in the attribute is not a valid date then the EFI process will mark this record as rejected with error code "01" in the response file.</li> </ul>

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27420600_ 2100CA_DMG0 3_ProviderGend erCode	String	Required	1	F – Female M – Male U - Unknown	This attribute contains the code value (F/M/U) for the Provider Gender.  Note:  If the attribute contains values other than the ones specified in the "Allowed Values" list then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.  Provider gender code is required for Entity Type 1 providers. If the value is not provided, the EFI process will mark this record as rejected.  NPPES allows only the "F" or "M" gender codes. It does not recognize "U" as a valid one. If the code is "U" then the EFI process will mark this record as rejected with error code "01" in the response file.

#### 2.3.12.3 Annotation

Documentation: Provider's Demographic Information

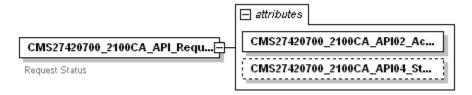
#### 2.3.12.4 Source

```
<xs:element name="CMS27420600_2100CA_DMG_ProviderSDemographicInformation">
 <:annotation>
  <:documentation>Provider's Demographic Information</:documentation>
 </xs:annotation>
 <xs:complexType>
  <xs:attribute name="CMS27420600_2100CA_DMG02_ProviderBirthDate" use="required">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="35"/>
    </:restriction>
   </:simpleType>
  </:attribute>
  <xs:attribute name="CMS27420600_2100CA_DMG03_ProviderGenderCode" use="required">
   <xs:simpleType>
    <xs:restriction base="xs:String">
     <xs:maxLength value="1"/>
     <xs:enumeration value="F"/>
     <xs:enumeration value="M"/>
     <xs:enumeration value="U"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
 </xs:complexType>
</xs:element>
```

# 2.3.13 Element: CMS27420700\_2100CA\_API\_RequestStatus

This element contains NPPES application status and status reason values, (e.g. "Active", "Pended", "Fraud", "Deceased", "Other"). It is defined as Optional by the EFI XML schema and it is used in the EFI response XML files. If this element does exist in new application/change request files, it is ignored by the EFI process.

### Exhibit 2-20 Element CMS27420700 2100CA API RequestStatus Structure



# 2.3.13.1 Used by

Element: CMS27420300\_2100CA

### 2.3.13.2 Attributes

### Exhibit 2-21 Element CMS27420700\_2100CA\_API\_RequestStatus Attributes

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27420700_ 2100CA_API02_ ActionCode	String	Required	2	U – Reject 33 – Active A4 – Pended IA - Deactivate	This attribute contains the NPPES application status of the provider record ("Active", "Rejected", etc.).  Note:  If the attribute contains values other than the ones specified in the "Allowed Values" list then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.  If the application is deactivated in NPPES, this attribute is populated with the value "IA" in the Response file.  In the Response file, this attribute will contain one of the values from the "Allowed Values" for each record in the file. For example this attribute would be populated with A4 (Pended), 33 (Active) and so on.

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27420700_ 2100CA_API04_ StatusReasonCo de	String	Optional	3	030 – Fraud A13 – Other C20 – Complete EB1 - Deceased	This attribute contains the values of the NPPES deactivation reason codes for a specific provider record ("Fraud", "Other", "Deceased", etc.). This attribute is situational.
					Note: The attribute is populated with a value from the "Allowed Values" list in the response file if the application is deactivated in NPPES.

#### 2.3.13.3 Annotation

Documentation: Request Status

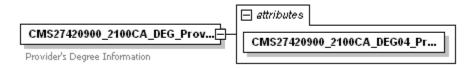
#### 2.3.13.4 Source

```
<xs:element name="CMS27420700 2100CA API RequestStatus">
 <xs:annotation>
  <xs:documentation>Request Status</xs:documentation>
 </xs:annotation>
 <xs:complexType>
  <xs:attribute name="CMS27420700 2100CA API02 ActionCode" use="required">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="2"/>
     <xs:enumeration value="U"/>
     <xs:enumeration value="33"/>
     <xs:enumeration value="A4"/>
     <xs:enumeration value="IA"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27420700_2100CA_API04_StatusReasonCode" use="Optional">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="3"/>
     <xs:enumeration value="030"/>
     <xs:enumeration value="A13"/>
     <xs:enumeration value="C20"/>
     <xs:enumeration value="EB1"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
 </xs:complexType>
</xs:element>
```

# 2.3.14 Element: CMS27420900\_2100CA\_DEG\_ProviderSDegreeInformation

This element contains provider credentials information. It is an Optional element and it can have up to 9 occurrences for each provider record in an XML data file. The EFI process will use only the first element per provider record and ignore any other occurrences for Entity Type 1 (individual) records. The EFI process will ignore this element entirely (if it exists) if the record belongs to an Entity Type 2 provider (organization).

# Exhibit 2-22 Element CMS27420900\_2100CA\_DEG\_ProviderSDegreeInformation Structure



### 2.3.14.1 Used by

Element: CMS27420300 2100CA

#### 2.3.14.2 Attributes

# Exhibit 2-23 Element CMS27420900\_2100CA\_DEG\_ProviderSDegreeInformation Attributes

Name	Туре	Use	Maximu m Length	Allowe d Values	Annotation
CMS27420900_ 2100CA_DEG04 _ProviderProfes	String	Required	80	Any valid String.	This attribute contains the Provider Credentials information. It is only relevant for Entity Type 1 provider records.
sionalDesignatio n					Note: If the attribute contains a value with length exceeding the maximum allowed (80 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.

#### 2.3.14.3 Annotation

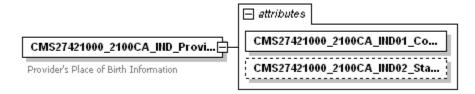
Documentation: Provider's Degree Information

#### 2.3.14.4 Source

#### 2.3.15 Element: CMS27421000\_2100CA\_IND\_ProviderSPlaceOfBirthInformation

This element contains provider place of birth information, such as state and country of birth. It is defined as Optional in the EFI XML schema and it is only applicable to Entity Type 1 provider records in an XML data file. The EFI process will ignore this element entirely (if it exists) if the record belongs to an Entity Type 2 provider (organization).

# Exhibit 2-24 Element CMS27421000\_2100CA\_IND\_ProviderSPlaceOfBirthInformation Structure



# 2.3.15.1 Used by

Element: CMS27420300\_2100CA

## 2.3.15.2 Attributes

# Exhibit 2-25 Element CMS27421000\_2100CA\_IND\_ProviderSPlaceOfBirthInformation Attributes

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation	
CMS27421000_ 2100CA_IND01_ CountryOfBirthC ode	String	Required	3	ISO Country codes	This attribute is required for individual provider records.  Note:  If the attribute contains a value with length exceeding the maximum allowed (3 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.  EFI will allow ISO standard country codes. If the value is not from the "Allowed Values" list then the EFI process will mark the record as rejected with error code "01" in the response file.	
CMS27421000_ 2100CA_IND02_ StateOrProvince OfBirthCode	String	Optional	2	State codes in United States.	This attribute must be populated if the country code is "US."  Note:  If the attribute contains a value with length exceeding the maximum allowed (2 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.  If the country code is "US", but the value of the state code is unrecognized (as a US state) then the EFI process will mark the record as rejected with error code "01" in the response file.	

#### 2.3.15.3 Annotation

Documentation: Provider's Place of Birth Information

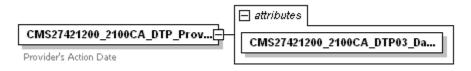
#### 2.3.15.4 Source

```
<xs:element name="CMS27421000_2100CA_IND_ProviderSPlaceOfBirthInformation">
 <xs:annotation>
  <xs:documentation>Provider's Place of Birth Information
 </xs:annotation>
 <xs:complexType>
  <xs:attribute name="CMS27421000_2100CA_IND01_CountryOfBirthCode" use="required">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="3"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27421000_2100CA_IND02_StateOrProvinceOfBirthCode" use="Optional">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="2"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
 </xs:complexType>
</xs:element>
```

### 2.3.16 Element: CMS27421200 2100CA DTP ProviderSActionDate

This element contains the provider application enumeration date. The EFI XML schema defines this element as Optional. The element is most relevant in EFI response files. It is not applicable at all to XML files containing new application requests.

Exhibit 2-26 Element CMS27421200\_2100CA\_DTP\_ProviderSActionDate Structure



## 2.3.16.1 Used by

Element: CMS27420300 2100CA

#### 2.3.16.2 Attributes

## Exhibit 2-27 Element CMS27421200\_2100CA\_DTP\_ProviderSActionDate Attributes

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27421200_ 2100CA_DTP03 _DateTimePerio d	String	Required	35	Any valid String.	This attribute contains the provider record's enumeration date.  Note:  If the attribute contains a value with length exceeding the maximum allowed (35 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.  NPPES allows only 10 characters for any Date information. If the length of the attribute value is more than 10 characters then the EFI process will mark the record as rejected for validation purposes. The record will also be marked as rejected with error code "01" in the response file if the 10 character String does not evaluate to a valid date.

#### 2.3.16.3 Annotation

Documentation: Provider's Action Date

#### 2.3.16.4 Source

## 2.3.17 Element: CMS27421300\_2100CA\_MTX\_RequestStatusAdditionalDetail

This element is found in the response file. It contains additional details or comments for records of applications that have become deactivated in NPPES with a deactivation reason of A13 -"Other" (see attribute CMS27420700\_2100CA\_API04\_StatusReasonCode). The EFI XML schema has defined this element as Optional. If this element does exist in new application/change request files, it is ignored by the EFI process.

# Exhibit 2-28 Element CMS27421300\_2100CA\_MTX\_RequestStatusAdditionalDetail Structure



### 2.3.17.1 Used by

Element: CMS27420300\_2100CA

#### 2.3.17.2 Attributes

# Exhibit 2-29 Element CMS27421300\_2100CA\_MTX\_RequestStatusAdditionalDetail Attributes

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27421300_ 2100CA_MTX0 2_TextualData	String	Required	4096	Any valid String.	This attribute is populated with a deactivation reason description (freeform text) in the response file if the application is deactivated in NPPES with a deactivation reason code A13 (other).  Note: If the attribute contains a value with length exceeding the maximum allowed (4096 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.

#### 2.3.17.3 Annotation

Documentation: Request Status Additional Detail

#### 2.3.17.4 Source

# 2.3.18 Element: CMS27421400\_2100CA\_CRC\_EFIProcessingStatusAdditional

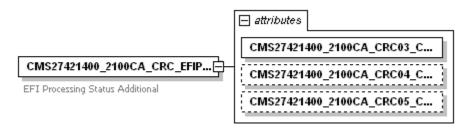
This element stores information about the record's processing status (described as operation indicator codes). The element is defined as Optional by the EFI XML schema and can occur more than once within a provider record in an XML file.

This element and its attributes are used in response files to show record processing status details and not meant for request files.

The attributes CMS27421400\_2100CA\_CRC03\_ConditionIndicator and CMS27421400\_2100CA\_CRC05\_ConditionDetail contain the code and detail description, respectively. They explain the record's processing status and also help the user to determine why a particular record fails in EFI validation.

Note: The attribute CMS27421400\_2100CA\_CRC03\_ConditionIndicator may not exist in the EFI response file for a record that is simply pending in the system and waiting for enumeration.

Exhibit 2-30 Element CMS27421400\_2100CA\_CRC\_EFIProcessingStatusAdditional Structure



### 2.3.18.1 Used by

Element: CMS27420300\_2100CA

#### 2.3.18.2 Attributes

Exhibit 2-31 Element CMS27421400\_2100CA\_CRC\_EFIProcessingStatusAdditional Attributes

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27421400_ 2100CA_CRC0 3_ConditionIndi cator	String	Required	3	OK,ER, 01, 02, 03, 04, 05, 06, 07, 08, 09,10, 12, 13, 14, and 15	This attribute contains information that indicates the status of the request. This information is supplied only in the EFI response files.  Refer to Exhibit 2-32 below for codes and their descriptions.  Note: If the attribute contains a value outside the "Allowed Values" list then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27421400_ 2100CA_CRC0 4_ConditionIndi cator	String	Optional	3	01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, and 13	Refer to Exhibit 2-33 below for codes and their descriptions.  Note:  Currently these codes are not used by NPPES.  If the attribute contains a value outside the "Allowed Values" list then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.
CMS27421400_ 2100CA_CRC0 5_ConditionDet ail	String	Optional	255	Any valid String.	This attribute contains detailed description that indicates the status of the request. This information is supplied only in the EFI response files.  This attribute will help users to determine the exact reason(s) why a particular record was rejected. Also, if a record has more than one pre-processing edit errors, the response file will include condition indicator code and condition detail for each separate incident.

## 2.3.18.3 Annotation

Documentation: EFI Processing Status Additional

### 2.3.18.4 Source

```
<xs:element name="CMS27421400_2100CA_CRC_EFIProcessingStatusAdditional">
 <xs:annotation>
  <xs:documentation>EFI Processing Status Additional/xs:documentation>
 </r></xs:annotation>
 <xs:complexType>
  <xs:attribute name="CMS27421400_2100CA_CRC03_ConditionIndicator" use="required">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="3"/>
     <xs:enumeration value="OK"/>
     <xs:enumeration value="ER"/>
     <xs:enumeration value="01"/>
     <xs:enumeration value="02"/>
     <xs:enumeration value="03"/>
     <xs:enumeration value="04"/>
     <xs:enumeration value="05"/>
```

```
<xs:enumeration value="06"/>
     <xs:enumeration value="07"/>
     <xs:enumeration value="08"/>
     <xs:enumeration value="09"/>
     <xs:enumeration value="10"/>
     <xs:enumeration value="12"/>
     <xs:enumeration value="13"/>
     <xs:enumeration value="14"/>
     <xs:enumeration value="15"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27421400 2100CA CRC04 ConditionIndicator" use="Optional">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="3"/>
     <xs:enumeration value="01"/>
     <xs:enumeration value="02"/>
     <xs:enumeration value="03"/>
     <xs:enumeration value="04"/>
     <xs:enumeration value="05"/>
     <xs:enumeration value="06"/>
     <xs:enumeration value="07"/>
     <xs:enumeration value="08"/>
     <xs:enumeration value="09"/>
     <xs:enumeration value="10"/>
     <xs:enumeration value="11"/>
     <xs:enumeration value="12"/>
     <xs:enumeration value="13"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
 </xs:complexType>
</xs:element>
```

### **Exhibit 2-32 Operation Indicator Codes**

Code	Description	Annotation
ОК	Accepted	Application is accepted for processing.
ER	Unspecified Error	Application is rejected due to unspecified errors.
01	Failed Field Edits	Application is failed in field edits.
		Example: Telephone number does not contain 10 digits.
02	Minimum Fields Missing	Missing minimum field(s) required for successful provision of an NPI.
		Example:
		Provider First Name is not provided for Entity Type 1 record.
		EIN is not provided for Entity Type 2 record.
03	Exact Duplicate	Exact SSN match with an existing record.
04	Rejected by NPI Enumerator	Application is failed because an enumerator staff user determined that this record already exists.
05	Invalid Taxonomy Code	Taxonomy code entered does not exist in the system.

Code	Description	Annotation
06	Taxonomy Code Mismatch	Non-provider taxonomy is supplied, or organization taxonomy is applied to an individual provider.
07	SSN Validation Error	Application is failed in SSA validation.
08	Mailing Address Error	Address codes not found/invalid.
09	Location Address Error	Address codes not found/invalid.
10	NPI not on File	In change request NPI was either not provided or provided NPI not found in the NPPES database.
12	Pended by Gatekeeper	Gatekeeper routines have flagged the record for Enumerator review.
13	Pended by L/S/T	L/S/T edits have flagged the record for Enumerator review.
14	Duplicate record	Exact duplicate of another record in the file or record already exists in the NPPES database.
15	No changes found, record not updated	The record provided in the change request EFI file does not contain any updated information for the NPI record.

Note: For additional information on possible user corrective action, see Appendix, Section 4.4.

**Exhibit 2-33 NPI Inquiry Response Codes** 

Code	Description	Annotation
01	Individual Verification - Found	Request fulfilled
02	Individual Verification - Not Found	No record matching criteria was found
03	Individual Verification - Close Match	A record closely matching the criteria was found
04	Individual Verification - Insufficient Data	Insufficient matching criteria was supplied by the requesting party
05	Organization Verification - Found	Request fulfilled
06	Organization Verification - Not Found	No record matching the criteria was found
07	Organization Verification - Close Match	A record closely matching the criteria was found
08	Organization Verification - Insufficient Data	Insufficient matching criteria was supplied by the requesting party
09	Individual Data Dissemination - Fulfilled	Request fulfilled
10	Individual Data Dissemination - Not Fulfilled	No records matching the criteria were found
11	Organization Data Dissemination - Fulfilled	Request fulfilled
12	Organization Data Dissemination - Not Fulfilled	No records matching the criteria were found

Code	Description	Annotation				
13	Unspecified Response	Unexpected conditions				

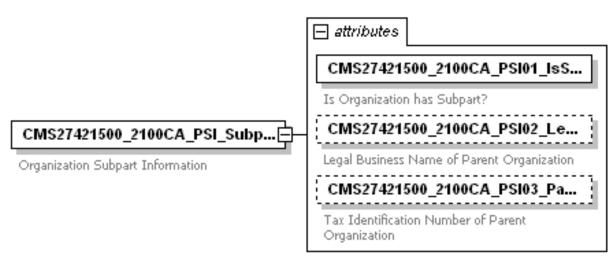
# 2.3.19 Element: CMS27421500\_2100CA\_PSI\_SubpartInformation

This element contains organization subpart information and is defined as an Optional element. This element has 3 attributes as described below.

#### Note:

- Subpart information is required for Entity Type 2 providers. If subpart information is not provided, the applications will be rejected by the EFI process.
- This element is not applicable for Entity Type 1 provider applications. If provided, it is simply ignored by the EFI process.

# Exhibit 2-34 Element CMS27421400 CMS27421500\_2100CA\_PSI\_SubpartInformation Structure



# 2.3.19.1 Properties

Content: complex

2.3.19.2 Used by

Element: CMS27420300\_2100CA

#### 2.3.19.3 Attributes

# Exhibit 2-35 Element CMS27421400 CMS27421500\_2100CA\_PSI\_SubpartInformation **Attributes**

Name	Туре	Use	Maximum Length	Allowed Values	Annotation
CMS27421500_2 100CA_PSI01_ls Subpart	String	Required	1	Y, y, N, n	This attribute value is used by the NPPES to collect whether the organization provider is a subpart of a parent organization. If the Organization is a subpart then the value will be either "Y" or "y", and if not then the value will be either "N" or "n".
					This is a required attribute. If its parent element "CMS27421500_2100CA_PSI_SubpartInform ation" is present but this attribute is not provided then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.
					If the attribute contains a value outside the "Allowed Values" list then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.
CMS27421500_2 100CA_PSI02_Le	String	Optional	70		This attribute value contains the parent organization's Legal Business Name.
galBusinessNam e					For Entity Type 2 applications, this attribute is required by NPPES when "Y" or "y" is provided in attribute  XCMS27421500_2100CA_PSI01_IsSubpartX.  If parent's LBN is required but not provided then the EFI process will mark the record as rejected with error code "02" in the response file.
					For Entity Type 2 applications, this attribute is disallowed by NPPES when "N" or "n" is supplied in attribute XCMS27421500_2100CA_PSI01_IsSubpartX. If a value is disallowed but still provided in the current attribute, the EFI process will mark the record as rejected with error code "01" in the response file.
					If the length of the attribute value is more than the maximum allowed (70 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.

Name	Туре	Use	Maximum Length	Allowed Values	Annotation
CMS27421500_2 100CA_PSI03_P arentTaxIdentifica tionNumber	String	Optional	9		This attribute value contains the parent organization's Tax Identification Number (TIN). For Entity Type 2 applications, Parent TIN is required by NPPES when "Y" or "y" is provided in attribute XCMS27421500_2100CA_PSI01_IsSubpartX. If Parent TIN is required but not provided then the EFI process will mark the record as rejected with error code "02" in the response file.
					For Entity Type 2 applications, Parent TIN is not allowed by NPPES when "N" or "n" is provided in attribute XCMS27421500_2100CA_PSI01_IsSubpartX. If Parent TIN is disallowed but still provided then the EFI process will mark the record as rejected with error code "01" in the response file.
					Parent TIN should be a number of 9 digits long. If the attribute contains value that is not 9 digits long, the provider record will fail the EFI process validation and it will be marked as rejected with error code "01" in the response file.
					If the attribute value is longer than the maximum allowed (9 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.

## 2.3.19.4 Annotation

Documentation: Organization Subpart Information

## 2.3.19.5 Source

```
<xs:element name="CMS27421500_2100CA_PSI_SubpartInformation">
 <xs:annotation>
  <xs:documentation>Organization Subpart Information</xs:documentation>
 </ri>
 <xs:complexType>
  <xs:attribute name="CMS27421500_2100CA_PSI01_IsSubpart" use="required">
   <xs:annotation>
    <xs:documentation>Is Organization has Subpart?</xs:documentation>
   </r></rs:annotation>
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="1"/>
     <xs:enumeration value="Y"/>
     <xs:enumeration value="y"/>
     <xs:enumeration value="N"/>
     <xs:enumeration value="n"/>
    </xs:restriction>
   </xs:simpleType>
```

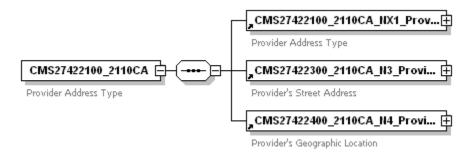
```
</xs:attribute>
  <xs:attribute name="CMS27421500 2100CA PSI02 LegalBusinessName" use="Optional">
   <xs:annotation>
    <xs:documentation>Legal Business Name of Parent Organization
   </xs:annotation>
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="70"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27421500_2100CA_PSI03_ParentTaxIdentificationNumber" use="Optional">
   <xs:annotation>
    <xs:documentation>Tax Identification Number of Parent Organization
   </xs:annotation>
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="9"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
 </xs:complexType>
</xs:element>
```

### 2.3.20 Element: CMS27422100\_2110CA

This element serves as a container for provider mailing address information. It is defined as required by the EFI XML schema and it consists of 3 child elements. The EFI XML schema allows up to 2 occurrences of this element for each provider record in the XML data file, however the EFI process will only use the first one. The other address information will be ignored because NPPES only stores one mailing address for a provider record.

**Note:** If this element is not provided at least once in every provider record, then the XML files will fail schema validation. The EFI process will ignore the file entirely. No response file will be generated and the EFI participant will be notified via e-mail only.

Exhibit 2-36 Element CMS27422100 2110CA Structure



#### 2.3.20.1 Child Elements

- CMS27422100\_2110CA\_NX1\_ProviderAddressType: this element contains the provider address type code.
- CMS27422300\_2110CA\_N3\_ProviderSStreetAddress: this element contains provider mailing address street details.
- CMS27422400\_2110CA\_N4\_ProviderSGeographicLocation: this element contains provider mailing address geographic location details.

### 2.3.20.2 Used by

Element: CMS27420300\_2100CA

# 2.3.20.3 Annotation

Documentation: Provider Address Type

#### 2.3.20.4 Source

# 2.3.21 Element: CMS27422100\_2110CA\_NX1\_ProviderAddressType

This element is defined as required by the EFI XML schema. It has one attribute containing provider address type information.

# Exhibit 2-37 Element CMS27422100\_2110CA\_NX1\_ProviderAddressType Structure



### 2.3.21.1 Used by

Element: CMS27422100\_2110CA

# 2.3.21.2 Attributes

### Exhibit 2-38 Element CMS27422100\_2110CA\_NX1\_ProviderAddressType Attributes

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27422100_ 2110CA_NX101 _AddressTypeC ode	String	Required	3	31 - Postal Mailing Address 8B – Primary Residence Address	This attribute contains the address type code indicating the address supplied is a mailing address or a primary residence address.  Note:  If the attribute contains a value outside the "Allowed Values" list then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.  NPPES will only collect the mailing address.  If two Mailing Address codes are provided the EFI process will choose only one (the first one).  The EFI process will ignore the primary residence addresses codes are provided then the EFI process will mark the record as rejected with error code "01" in the response file.

### 2.3.21.3 Annotation

Documentation: Provider Address Type

### 2.3.21.4 Source

```
<xs:element name="CMS27422100_2110CA_NX1_ProviderAddressType">
 <xs:annotation>
  <xs:documentation>Provider Address Type</xs:documentation>
 </xs:annotation>
 <xs:complexType>
  <xs:attribute name="CMS27422100_2110CA_NX101_AddressTypeCode" use="required">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="3"/>
     <xs:enumeration value="31"/>
     <xs:enumeration value="8B"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
 </r></rs:complexType>
</xs:element>
```

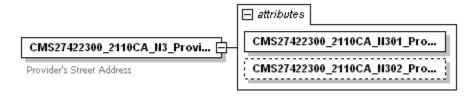
# 2.3.22 Element: CMS27422300\_2110CA\_N3\_ProviderSStreetAddress

This element is defined as required by the EFI XML schema. It has two attributes containing provider mailing street address details.

#### Note:

Address standardization will be run using Universal Coder software against all domestic and military mailing addresses. See section 4.5 for details regarding address standardization.

## Exhibit 2-39 Element CMS27422300\_2110CA\_N3\_ProviderSStreetAddress Structure



# 2.3.22.1 Used by

Element: CMS27422100\_2110CA

#### 2.3.22.2 Attributes

### Exhibit 2-40 Element CMS27422300\_2110CA\_N3\_ProviderSStreetAddress Attributes

Name	Туре	Use	Maximu m Length	Allowe d Values	Annotation
CMS27422300_ 2110CA_N301_ ProviderAddress Line	String	Required	55	Any valid String.	This attribute contains Provider Mailing Street Address Line 1 information. Provider domestic and military mailing street address line 1 is standardized using Universal Coder. See section 4.5 for details regarding address standardization.  Note:
					If the attribute contains a value with length exceeding the maximum allowed (55 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.  This attribute must be populated with a non-blank value (all spaces). Otherwise the EFI process will mark the record as rejected will error code "02" in the

Name	Туре	Use	Maximu m Length	Allowe d Values	Annotation
CMS27422300_ 2110CA_N302_ ProviderAddress Line	String	Optional	55	Any valid String.	This attribute contains Provider Mailing Street Address Line 2 information. Provider street address line 2 will not be standardized in NPPES. See section 4.5 for details regarding address standardization.
					If the attribute contains a value with length exceeding the maximum allowed (55 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.

#### 2.3.22.3 Annotation

Documentation: Provider's Street Address

### 2.3.22.4 Source

```
<xs:element name="CMS27422300_2110CA_N3_ProviderSStreetAddress">
 <xs:annotation>
  <xs:documentation>Provider's Street Address</xs:documentation>
 </xs:annotation>
 <xs:complexType>
  <xs:attribute name="CMS27422300_2110CA_N301_ProviderAddressLine" use="required">
   <xs:simpleType>
    <xs:restriction base="xs:String">
     <xs:maxLength value="55"/>
    </:restriction>
   </:simpleType>
  </:attribute>
  <xs:attribute name="CMS27422300_2110CA_N302_ProviderAddressLine" use="Optional">
   <xs:simpleType>
    <xs:restriction base="xs:String">
     <xs:maxLength value="55"/>
    </:restriction>
   </:simpleType>
  </:attribute>
 </xs:complexType>
</xs:element>
```

### 2.3.23 Element: CMS27422400\_2110CA\_N4\_ProviderSGeographicLocation

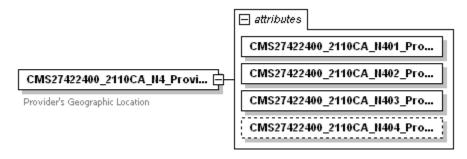
This element is defined as required by the EFI XML schema and it has 4 attributes containing additional provider mailing address information details, such as city, state name, postal or zip codes, and country code.

#### Note:

NPPES accepts domestic, military, and foreign addresses for the NPI Provider's business and mailing addresses. The EFI process will determine the type of mailing address, whether it is domestic or foreign by examining the value of the country code.

To determine whether the mailing address is a military address, the EFI system will look at the city name, state code, and country code. If the country code is "US", the city name is either APO or FPO, and the state code is either AA, AE, or AP, then the address will be treated as a military address.

Exhibit 2-41 Element CMS27422400\_2110CA\_N4\_ProviderSGeographicLocation Structure



# 2.3.23.1 Used by

Element: CMS27422100\_2110CA

2.3.23.2 Attributes

Exhibit 2-42 Element CMS27422400\_2110CA\_N4\_ProviderSGeographicLocation Attributes

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27422400_ 2110CA_N401_ ProviderCityNa me	String	Required	40	Any valid String.	This attribute contains the provider mailing address city name. Provider domestic and military mailing address city name is standardized using Universal Coder. See section 4.5 for details regarding address standardization.
					Note:
					If the attribute contains a value with length exceeding the maximum allowed (40 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.
					This attribute must be populated with a non-blank value (all spaces). Otherwise the EFI process will mark the record as rejected with error code "02" in the response file.

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27422400_ 2110CA_N402_ ProviderStateCo de	String	Required	40	Any valid String.	The attribute contains the provider mailing address state code. Provider domestic and military mailing address state code is standardized using Universal Coder. See section 4.5 for details regarding address standardization  Note:
					If the attribute contains a value with length exceeding the maximum allowed (40 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.
					This attribute must be populated with a non-blank value (all spaces). Otherwise the EFI process will mark the record as rejected with error code "02" in the response file.
					<ul> <li>If the address is domestic, the attribute can only contain values from U.S. state codes standard list. Otherwise, the EFI process will mark the record as rejected with error code "01" in the response file.</li> </ul>
CMS27422400_ 2110CA_N403_ ProviderPostalZ oneOrZipCode	String	Required	20	Any valid String.	This attribute contains the provider mailing address postal or zip code. Provider domestic and military mailing address zip code is standardized using Universal Coder. See section 4.5 for details regarding address standardization
					Note:  • If the attribute contains a value with length exceeding the maximum allowed (20 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.
					This attribute must be populated with a non-blank value (all spaces). In addition, zip codes must be either 5 or 9 digits long (numeric). Otherwise the EFI process will mark the record as rejected with error code "02" in the response file.
					NPPES allows zip codes to be up to 9 characters long (5 or 9) and foreign postal codes up to 20 characters long.

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27422400_ 2110CA_N404_ ProviderCountry Code	String	Optional	3	Any valid String.	This attribute contains the provider mailing address country code.  Note:  If the attribute contains a value with length exceeding the maximum allowed (3 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.  The EFI process uses this field to determine whether it is working with a domestic or foreign address. If the country code is U.S then the EFI process treats the mailing address as domestic and applies the appropriate validations.  Country code must be from the ISO standard list. Otherwise the EFI process will mark the record as rejected with error code "01" in the response file.

#### 2.3.23.3 Annotation

Documentation: Provider's Geographic Location

## 2.3.23.4 Source

```
<xs:element name="CMS27422400_2110CA_N4_ProviderSGeographicLocation">
 <xs:annotation>
  <xs:documentation>Provider's Geographic Location</xs:documentation>
 </xs:annotation>
 <xs:complexType>
  <xs:attribute name="CMS27422400_2110CA_N401_ProviderCityName" use="required">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="40"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27422400_2110CA_N402_ProviderStateCode" use="required">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="40"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27422400_2110CA_N403_ProviderPostalZoneOrZipCode" use="required">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="20"/>
    </xs:restriction>
```

#### 2.3.24 Element: CMS27422600 2120CA

This element acts as a container for provider taxonomy information details. The element is defined as required by the EFI XML schema and it must occur at least once within every provider record in an XML file.

#### Note:

- NPPES limits the number of taxonomies to a maximum of 15 unique taxonomies per provider. If there are more than 15 taxonomies in a provider record then the EFI process will ignore the additional ones
- The EFI system ignores Taxonomies that have the same taxonomy code, license number, and state on file for that provider.
- The absence of this element in a provider record will cause the XML file to fail schema validation.
   The entire file will be rejected by the EFI process and no response file will be generated. The EFI participant that submitted the file will be notified via e-mail only.

#### Exhibit 2-43 Element CMS27422600 2120CA Structure



#### 2.3.24.1 Child Elements

CMS27422600\_2120CA\_LQ\_ProviderSAreaOfSpecialization

## 2.3.24.2 Used by

Element: CMS27420300\_2100CA

#### 2.3.24.3 Annotation

Documentation: Provider's Area of Specialization

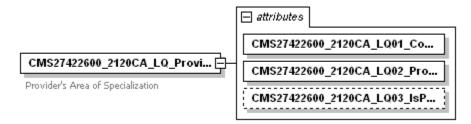
## 2.3.24.4 Source

```
<xs:element name="CMS27422600_2120CA">
  <xs:annotation>
  <xs:documentation>Provider's Area of Specialization</xs:documentation>
  </xs:annotation>
  <xs:complexType>
  <xs:sequence>
   <xs:element ref="CMS27422600_2120CA_LQ_ProviderSAreaOfSpecialization"/>
  </xs:sequence>
  </xs:complexType>
</xs:complexType>
</xs:element>
```

# 2.3.25 Element: CMS27422600\_2120CA\_LQ\_ProviderSAreaOfSpecialization

This element is defined as required by the EFI XML schema and it has 3 attributes containing the actual taxonomy code and its primary taxonomy information.

# Exhibit 2-44 Element CMS27422600\_2120CA\_LQ\_ProviderSAreaOfSpecialization Structure



## 2.3.25.1 Used by

Element: CMS27422600\_2120CA

#### 2.3.25.2 Attributes

## Exhibit 2-45 Element CMS27422600\_2120CA\_LQ\_ProviderSAreaOfSpecialization Attributes

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27422600_ 2120CA_LQ01_ CodeListQualifier Code	Integer	Required	3	Any valid integer	This attribute contains the provider area of specialization code. This is usually the first 2 digits of the provider's taxonomy number.  Note: This attribute is not used by the EFI process.
CMS27422600_ 2120CA_LQ02_	String	Required	30	Any valid sting.	This attribute contains the provider taxonomy number.
ProviderSpecialit yCode				Č	If the attribute contains a value with length exceeding the maximum allowed (30 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.
					This attribute must be populated with a non-blank value (all spaces). Otherwise the EFI process will mark the record as rejected with error code "02" in the response file.
					Taxonomy codes are 10 characters long. If the attribute contains code values that are not 10 characters long, the record will fail EFI process validation. This record will be marked as rejected with error code "01" in the response file.
					If the attribute contains a taxonomy that does not exist in NPPES, the record will fail EFI process validation. The record will be marked as rejected with an error code "05" in the response file.
					If the attribute contains a taxonomy that does not belong to the type of provider in the record (e.g. an individual is assigned the taxonomy of a hospital), it will fail EFI process validation. The record will be marked as rejected with an error code "06" in the response file.
					NPPES doesn't allow "193200000X" and "193400000X" Taxonomy numbers. Applications that are submitted with these taxonomy numbers will fail EFI process validation. The record will be marked as rejected with an error code "01" in the response file. For information how to provide "Group" taxonomy, refer to sections X2.3.43X and X2.3.44X.

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27422600_ 2120CA_LQ03_I sPrimaryTaxono my	String	Optional	1	Y, y, N, n	This attribute value is used by the NPPES to collect whether a taxonomy is the primary taxonomy or not. If the value is either "Y", or "y" then the taxonomy is treated as primary taxonomy number, and if the value is either "N" or "n" then it is treated as non primary taxonomy number. This attribute is required by NPPES. If not provided then such provider records will fail in EFI process validation. The record will be marked as rejected by the system with error code 02 in the response file.
					For each application, NPPES requires one and only one taxonomy number be selected as primary taxonomy. If primary taxonomy not provided then such provider records will fail in EFI process validation. The record will be marked as rejected by the system with error code 02 in the response file.
					For each application, if more than one taxonomy number is selected as primary taxonomy then such provider records will fail in EFI process validation. The record will be marked as rejected by the system with error code 01 in the response file.
					If this attribute value is not from the "Allowed Values" list then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.

## 2.3.25.3 Annotation

Documentation: Provider's Area of Specialization

#### 2.3.25.4 Source

<xs:simpleType>

```
<xs:restriction base="xs:String ">
    <xs:maxLength value="1"/>
    <xs:enumeration value="Y"/>
    <xs:enumeration value="y"/>
    <xs:enumeration value="N"/>
    <xs:enumeration value="n"/>
    </restriction>
    </xs:restriction>
    </restriction>
    </re>
```

## 2.3.26 Element: CMS27423200\_2130CA

This element acts as a container for provider licensing (license number, issuing state) information. It is defined as required by the EFI XML schema and it must occur at least once within every provider record in an XML file.

#### Note:

- The absence of this element in a provider record will cause the XML file to fail schema validation. The entire file will be rejected by the EFI process and no response file will be generated. The EFI participant that submitted the file will be notified via e-mail only.
- According to the EFI XML schema, this element can occur up to 99 times within each provider record. NPPES allows a maximum of 15 unique licensing number/state combinations. The EFI process will ignore any additional licensing information.
- NPPES maintains a relationship between the taxonomy codes and the licensing information. The EFI XML schema does not define such a relationship. The EFI process imposes a relationship between the taxonomy codes and the licensing information through the following rules:
  - The number of taxonomies in a provider record must be the same as the number of licensing number/state combinations. Otherwise, the record fails EFI process validation and is marked as rejected. Because some taxonomy codes do not require licensing information, the EFI participant must fill out the licensing number and state information with blanks to verify that the numbers match.
  - The EFI process system will take the first taxonomy from the element
     CMS27422600\_2120CA\_LQ\_ProviderSAreaOfSpecialization and the first license/state combination from element

CMS27423200\_2130CA\_HPL\_ProviderLicenseCertificationRegistration and "match" them in the NPPES database (if field validations are passed). Then the process continues with the rest of taxonomies, license/state combinations in the same manner.

#### Exhibit 2-46 Element CMS27423200 2130CA Structure



#### 2.3.26.1 Child Elements

CMS27423200\_2130CA\_HPL\_ProviderLicenseCertificationRegistration

## 2.3.26.2 Used by

Element: CMS27420300\_2100CA

#### 2.3.26.3 Annotation

Documentation: Provider License/Certification/Registration

## 2.3.26.4 Source

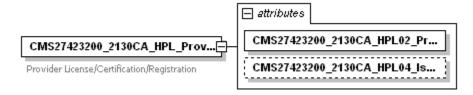
- <xs:element name="CMS27423200\_2130CA">
- <: annotation>
- <:documentation>Provider License/Certification/Registration</:documentation>
- </:annotation>
- <:complexType>
- <:sequence>
- <:element ref= »CMS27423200\_2130CA\_HPL\_ProviderLicenseCertificationRegistration » minOccurs= »0 »/>
- </:sequence>
- </:complexType>
- </xs:element>

#### 2.3.27 Element:

## CMS27423200\_2130CA\_HPL\_ProviderLicenseCertificationRegistration

This element is defined as Optional by the EFI XML schema and has 2 attributes containing provider licensing (license number and issuing state) information.

# Exhibit 2-47 Element CMS27423200\_2130CA\_HPL\_ProviderLicenseCertificationRegistration Structure



## 2.3.27.1 Used by

Element: CMS27423200\_2130CA

#### 2.3.27.2 Attributes

# **Exhibit 2-48 Element** CMS27423200\_2130CA\_HPL\_ProviderLicenseCertificationRegistration Attributes

OM327423200_21300A_III E_I TOVIDEI EICENSEGERUNCATION RETISEUES						
Name	Туре	Use	Maximu m Length	Allowed Values	Annotation	
CMS27423200_ 2130CA_HPL02 _ProviderIdentifi cationNumber	String	Required	50	Any valid String.	This attribute contains the provider license number information for a particular taxonomy.  Note:  If the attribute contains a value with length exceeding the maximum allowed (50 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via email only.  Due to the considerations mentioned in section X2.3.26X, it is possible for this attribute to be filled with blank characters.  NPPES allows license numbers to be up to a maximum of 20 characters long. If the attribute contains a license number that exceeds 20 characters the provider's record will fail the EFI process validation and will be marked as rejected with error code "01" in the response file.	
CMS27423200_ 2130CA_HPL04 _IssuingStateCo de	String	Optional	2	Any valid String.	This attribute contains the state code where the license number was issued to the provider.  Note:  If the attribute contains a value with length exceeding the maximum allowed (2 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.  Due to the considerations mentioned in section X2.3.26X, it is possible for this attribute to be filled with blank characters.  If the attribute does contain a state code value, then the code must belong in the U.S. standard state code list. Otherwise the provider record with fail EFI process validation and will be marked as rejected with error code "01" in the response file.	

#### 2.3.27.3 Annotation

Documentation: Provider License/Certification/Registration

#### 2.3.27.4 Source

```
<xs:element name="CMS27423200_2130CA_HPL_ProviderLicenseCertificationRegistration">
 <xs:annotation>
  <xs:documentation>Provider License/Certification/Registration</xs:documentation>
 </xs:annotation>
 <xs:complexType>
  <xs:attribute name="CMS27423200_2130CA_HPL02_ProviderIdentificationNumber" use="required">
   <xs:simpleType>
    <xs:restriction base="xs:String">
     <xs:maxLength value="50"/>
    </:restriction>
   </:simpleType>
  </:attribute>
  <xs:attribute name="CMS27423200_2130CA_HPL04_IssuingStateCode" use="Optional">
   <xs:simpleType>
    <xs:restriction base="xs:String">
     <xs:maxLength value="2"/>
    </:restriction>
   </:simpleType>
  </:attribute>
 </xs:complexType>
</xs:element>
```

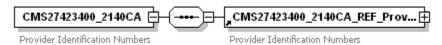
#### 2.3.28 Element: CMS27423400 2140CA

This element acts as a container for different types of identification numbers that a provider may have aside from the ones assigned by NPPES. It is defined as an Optional element by the EFI XML schema and it can occur multiple times within provider records in an XML file.

#### Note:

- The EFI XML schema does not impose an upper limit on the number of occurrences of this element. NPPES on the other hand allows a maximum of 50 Other IDs for each provider. Hence, if an EFI Organization submits more than 50 Other ID numbers, the remaining Other ID Numbers are ignored
- The EFI system also checks for duplicate information within a provider's record. The EFI system ignores Other ID numbers that have the same type, number, state and issuer (previously description) on file for that provider.
- The EFI XML schema dictates that this element also serves as the placeholder for SSN/ITIN values for entity type 1 records and current/new EIN values for entity type 2 records. The EFI system ignores EINs (old or new) provided for entity type 1 records and SSN/ITIN values provided for entity type 2 records.
- Even though the schema defines this element as Optional, SSN/ITIN and EIN are required data for NPPES. The enforcement of this requirement is performed by the EFI process validation. If a provider record does not contain an SSN/ITIN (entity type 1) or EIN (entity type 2) instance of this element, it will fail the EFI process validation and will be marked as rejected (error code 02).

#### Exhibit 2-49 Element CMS27423400 2140CA Structure



#### 2.3.28.1 Child Elements

CMS27423400\_2140CA\_REF\_ProviderIdentificationNumbers

## 2.3.28.2 Used by

Element: CMS27420300\_2100CA

#### 2.3.28.3 Annotation

Documentation: Provider Identification Numbers

#### 2.3.28.4 Source

```
<xs:element name="CMS27423400_2140CA">
```

- <:annotation>
- <:documentation>Provider Identification Numbers</:documentation>
- </xs:annotation>
- <xs:complexType>
- <xs:sequence>
- <xs:element ref="CMS27423400\_2140CA\_REF\_ProviderIdentificationNumbers"/>
- </xs:sequence>
- </xs:complexType>
- </xs:element>

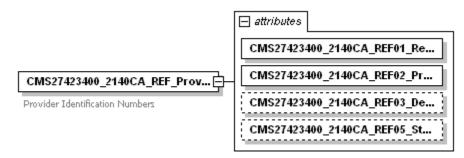
## 2.3.29 Element: CMS27423400\_2140CA\_REF\_ ProviderIdentificationNumbers

This element is defined as required by the EFI XML schema. It has 4 attributes containing provider other identification number information.

#### Note:

- If the parent of this element exists (CMS27423400\_2140CA) in a provider record, then the absence of this element in that provider record will cause the XML file to fail schema validation. The entire file will be rejected by the EFI process and no response file will be generated. The EFI participant that submitted the file will be notified via e-mail only.
- There are separate placeholders for state and description values, respectively.

# Exhibit 2-50 Element CMS27423400\_2140CA\_REF\_ProviderIdentificationNumbers Structure



#### 2.3.29.1 Used by

Element: CMS27423400\_2140CA

#### 2.3.29.2 Attributes

## Exhibit 2-51 Element CMS27423400\_2140CA\_REF\_ProviderIdentificationNumbers **Attributes**

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27423400_ 2140CA_REF0 1_ReferenceIde ntificationQualifi er	String	Required	3	Code – Description:  1A – Blue Cross Provider Number  1B – Blue Shield Provider Number  1C – MEDICARE ID Unknown  1D – MEDICAID  1G – MEDICARE UPIN  1H – CHAMPUS Identification Number  EI – Employer's Identification Number (EIN)  EN – Employer's New Identification Number  G2 – Provider Commercial Number  MP – MEDICARE PIN NS – MEDICARE NSC  OS – MEDICARE OSCAR  OT – Other Type  SY- Social Security Number (SSN)  TJ – Federal Taxpayer's Identification Number (ITIN)  TX – Tax Exempt Number  VT- Motor Vehicle ID Number	This attribute contains the provider other identification type code.  If the attribute contains a value outside the "Allowed Values" list then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.  NPPES does not support the following codes: 1A, 1B, 1H, G2, TX, and VT. If an application is submitted with these codes it will fail the EFI process validation and it will be marked as rejected with error code "01" in the response file.  However, if system finds one of these codes while generating response files then EFI process converts the code to "OT" in the response file.  If other id type code is "SY" then the other identifier value should be SSN, if "TJ" then the value should be ITIN, if "EI" then the value should be EIN, and if "EN" then the value should be new EIN.  Starting with R1.6, the EIN value can be changed. The code value 'EN' should be used to submit the new EIN value.

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27423400_ 2140CA_REF0	String	Required	50	Any valid String	This attribute contains the actual provider identifier.
2_ProviderIdent ifier					If the attribute contains a value with length exceeding the maximum allowed (50 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via email only.
					If the other identification type code has been provided, this attribute cannot contain blank values. Otherwise, the provider record will fail the EFI process validation and it will be marked as rejected with error code "02" in the response file.
					NPPES imposes a 20 character length limit on provider other IDs. If that attribute contains an identifier that exceeds that limit, the provider record will fail the EFI process validation and it will be marked as rejected with error code "01" in the response file.
CMS27423400_ 2140CA_REF0 3_Description	String	Optional	80	Any valid String.	This attribute contains the description for a provider's other ID. This attribute is not used when the identifier is SY (SSN), TJ (ITIN), EI (EIN) or EN (new EIN).
					Table 2-3 provides the different requirements that must be fulfilled when submitting provider identification information.
					If the attribute contains a value with length exceeding the maximum allowed (80 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via email only.
					If the description is required but is missing, the provider record will fail EFI process validation and it will be marked as rejected with error code "02" in the response file.

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27423400_ 2140CA_REF0 5_State	String	Optional	2	Any valid String.	This attribute contains the US state code associated with a given provider other ID. This attribute is not used when the identifier is SY (SSN), TJ (ITIN), EI (EIN) or EN (new EIN).
					Table 2-3 provides the different requirements that must be fulfilled when submitting provider identification information.
					If the attribute contains a value with length exceeding the maximum allowed (2 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via email only.
					If the attribute contains a state code but the value is not found in the U.S. standard state code list then the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" and with appropriate error message in the response file.
					If the state code is required (e.g. for Medicaid IDs) but is missing, the provider record will fail EFI process validation. The record will be marked as rejected by the system with error code "02" and with appropriate error message in the response file.

## 2.3.29.3 Annotation

Documentation: Provider Identification Numbers

## 2.3.29.4 Source

```
<xs:element name="CMS27423400_2140CA_REF_ProviderIdentificationNumbers">
<xs:annotation>
<xs:documentation>Provider Identification Numbers</xs:documentation>
```

</xs:annotation>

<xs:complexType>

<xs:attribute name="CMS27423400\_2140CA\_REF01\_ReferenceIdentificationQualifier" use="required">
<xs:simpleType>

<xs:restriction base="xs:String ">

<xs:maxLength value="3"/>

<!--Supported OID Type Codes in NPPES-->

<xs:enumeration value="1D"/>

<xs:enumeration value="1G"/>

```
<xs:enumeration value="EI"/>
     <xs:enumeration value="EN"/>
     <xs:enumeration value="SY"/>
     <xs:enumeration value="TJ"/>
     <xs:enumeration value="OS"/>
     <xs:enumeration value="NS"/>
     <xs:enumeration value="MP"/>
     <xs:enumeration value="OT"/>
     <!--Unsupported OID Type Codes in NPPES-->
     <xs:enumeration value="1A"/>
     <xs:enumeration value="1B"/>
     <xs:enumeration value="1C"/>
     <xs:enumeration value="1H"/>
     <xs:enumeration value="G2"/>
     <xs:enumeration value="TX"/>
     <xs:enumeration value="VT"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27423400_2140CA_REF02_ProviderIdentifier" use="required">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="50"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27423400_2140CA_REF03_Description" use="Optional">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="80"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27423400_2140CA_REF05_State" use="Optional">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="2"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
 </xs:complexType>
</xs:element>
```

#### **Exhibit 2-52 Provider Identification Codes**

Code	Description	Annotation
1A	Blue Cross Provider Number	NPPES doesn't support Blue Cross Provider numbers. Applications submitted with this code will fail EFI process validation. The record will be marked as rejected by the system with error code 01 in the response file. However, if system finds this code while generating response file then EFI process will convert this code to "OT" meaning "Other Type".

Code	Description	Annotation
1B	Blue Shield Provider Number	NPPES doesn't support Blue Shield Provider numbers. Applications submitted with this code will fail EFI process validation. The record will be marked as rejected by the system with error code 01 in the response file. However, if system finds this code while generating response file then EFI process will convert this code to "OT" meaning "Other Type".
1C	MEDICARE ID Unknown (deprecated)	Starting Release 1.4, NPPES no longer accepts new Other IDs with the 1C code, or changes to an existing Other ID Number of type 1C. Any new NPI application that contains the 1C Other Identifier code will be marked as rejected with error code 01 in the response file. Similarly, any Change Request that contains the 1C code, but the related Other Identifier information does not match what exists in NPPES, will also be rejected because this is deemed as adding a new Identifier with the 1C type.
1D	MEDICAID	NPPES does require state information for Medicaid Provider Numbers.
1G	MEDICARE UPIN	NPPES does not require state or description information for UPIN numbers.
1H	CHAMPUS Identification Number	NPPES doesn't support CHAMPUS Identification Numbers. Applications submitted with this code will fail EFI process validation. The record will be marked as rejected by the system with error code 01 in the response file. However, if system finds this code while generating response file then EFI process will convert this code to "OT" meaning "Other Type".
EI	Employer's Identification Number (EIN)	If the first attribute of 2.3.27 element (CMS27423400_2140CA_REF01_ReferenceIdentificationQualifier) holds the code "EI" then the value entered in the second attribute of this element (CMS27423400_2140CA_REF02_ProviderIdentifier) is treated as EIN value by the EFI process.
		Furthermore, if the code is "El" then description and state are ignored by the EFI process.
		Note:
		<ul> <li>Entity Type 1 providers: if EIN value is provided such information is ignored by the EFI process.</li> </ul>
		Entity Type 2 providers: if EIN is not provided then the provider record will fail EFI process validation and it will be marked as rejected with error code "02" in the response file.
		EIN must be 9 digits long. Negative numbers and all zeroes are not allowed. Otherwise the provider record will fail the EFI process validation and it will be marked as rejected with error code "01" in the response file.

Code	Description	Annotation
EN	Employer's New Identification Number (EIN)	If the first attribute of 2.3.27 element (CMS27423400_2140CA_REF01_ReferenceIdentificationQualifier) holds the code "EN" then the value entered in the second attribute of this element (CMS27423400_2140CA_REF02_ProviderIdentifier) is treated as new EIN value by the EFI process.
		Furthermore, if the code is "EN" then description and state are ignored by the EFI process.
		Note:
		<ul> <li>Entity Type 1 providers: if new EIN value is provided such information is ignored by the EFI process.</li> </ul>
		Entity Type 2 providers: This is an optical field and will be used to submit new EIN value.
		With NPPES Release R.16, it is allowed to change Organization EIN value through EFI change request. However, for successful change of old EIN value with new EIN value, the old EIN value must match with the current EIN value in the NPPES System. If not matched then record will fail EFI process validation and it will be marked as rejected with error code "10" in the response file.
		<ul> <li>New EIN new must be 9 digits long. Negative numbers and all zeroes are not allowed. Otherwise the provider record will fail the EFI process validation and it will be marked as rejected with error code "01" in the response file.</li> </ul>
G2	Provider Commercial Number	NPPES doesn't support Provider Commercial Numbers. Applications submitted with this code will fail EFI process validation. The record will be marked as rejected by the system with error code 01 in the response file. However, if system finds this code while generating response file then EFI process will convert this code to "OT" other type code.
MP	MEDICARE PIN	If the first attribute of 2.3.27 element (CMS27423400_2140CA_REF01_ReferenceIdentificationQualifier) holds the code "MP" then the value entered in the second attribute of this element (CMS27423400_2140CA_REF02_ProviderIdentifier) is treated as MEDICARE PIN by the EFI process.
NS	MEDICARE NSC	If the first attribute of 2.3.27 element (CMS27423400_2140CA_REF01_ReferenceIdentificationQualifier) holds the code "NS" then the value entered in the second attribute of this element (CMS27423400_2140CA_REF02_ProviderIdentifier) is treated as NSC Number by the EFI process.
		The NSC number must be 10 digits long. Otherwise, the application will fail EFI process validation. The record will be marked as rejected by the system with error code 01 in the response file.
OS	MEDICARE OSCAR	If the first attribute of 2.3.27 element (CMS27423400_2140CA_REF01_ReferenceIdentificationQualifier) holds the code "OS" then the value entered in the second attribute of this element (CMS27423400_2140CA_REF02_ProviderIdentifier) is treated as an OSCAR Number by the EFI process.
		The OSCAR number can be alphanumeric value between 6-15 characters long. If the value is either less than 6 characters or more than 15 characters long then such applications will fail in EFI process validation. The record will be marked as rejected by the system with error code 01 in the response file.

Code	Description	Annotation
ОТ	Other Type	If the first attribute of 2.3.27 element (CMS27423400_2140CA_REF01_ReferenceIdentificationQualifier) holds the code "OT" then the value entered in the second attribute of this element (CMS27423400_2140CA_REF02_ProviderIdentifier) is treated as "Other Type of ID Number" by the EFI process.
SY	Social Security Number (SSN)	If the first attribute of 2.3.27 element (CMS27423400_2140CA_REF01_ReferenceIdentificationQualifier) contains the code "SY", then the value entered in the second attribute of this element (CMS27423400_2140CA_REF02_ProviderIdentifier) is treated as SSN value by the EFI process.
		Furthermore, if the code is "SY" then description and state are ignored by the EFI process.  Note:
		<ul> <li>Entity Type 2 providers: if SSN value is provided, such information is ignored by the EFI process.</li> </ul>
		Entity Type 1 providers: if SSN is not provided then the record will fail EFI process validation and it will be marked as rejected with error code "02" in the response file.
		Entity Type 1 providers: if both SSN and ITIN values are provided the EFI process will always use the SSN and ignore the ITIN, unless the record denotes a change request on a provider who originally entered an ITIN. In this case ITIN is not ignored; instead it is used for data comparisons.
		SSN must be 9 digit long. Otherwise the provider record will fail the EFI process validation and it will be marked as rejected with error code "01" in the response file.
TJ	Federal Taxpayer's Identification Number (ITIN)	If the first attribute of 2.3.27 element (CMS27423400_2140CA_REF01_ReferenceIdentificationQualifier) contains the code "TJ" then the value entered in the second attribute of this element (CMS27423400_2140CA_REF02_ProviderIdentifier) is treated as ITIN value by the EFI process.
		Furthermore, if the code is "TJ" then description and state are ignored by the EFI process.
		<ul> <li>Note:</li> <li>Entity Type 2 providers; if ITIN value is provided, such information is ignored by the EFI process.</li> </ul>
		Entity Type 1 providers; ITIN is Optional.
		Entity Type 1 providers: if both SSN and ITIN values are provided the EFI process will always use the SSN and ignore the ITIN unless the record denotes a change request on a provider who originally entered an ITIN. In this case ITIN is not ignored; instead it is matched against the TIN stored in NPPES.
		ITIN must be 9 digit long. Otherwise the provider record will fail the EFI process validation and it will be marked as rejected with error code "01" in the response file.
TX	Tax Exempt Number	NPPES doesn't support Tax Exempt Numbers. Applications submitted with this code will fail EFI process validation. The records will be marked as rejected by the system with error code 01 in the response file. However, if system finds this code while generating response file then EFI process will convert this code to "OT" meaning "Other Type".

Code	Description	Annotation
VT	Motor Vehicle ID Number	NPPES doesn't support Motor Vehicle ID Numbers. Applications submitted with this code will fail EFI process validation. The record will be marked as rejected by the system with error code 01 in the response file. However, if system finds this code while generating response file then EFI process will convert this code to "OT" meaning "Other Type".

#### 2.3.30 Element: CMS27420300 2100CD

This element acts as a container for a miscellaneous set of data which includes authorized representative, contact person, and/or provider other name information. This element is defined as required by the EFI XML schema and it can occur more than once within provider records in an XML file.

In the EFI schema the authorized official, contact person, and other provider name information is referred to as "Affiliated Entity Name" information.

Note: The absence of this element in a provider record will cause the XML file to fail schema validation. The entire file will be rejected by the EFI process and no response file will be generated. The EFI participant that submitted the file will be notified via e-mail only.

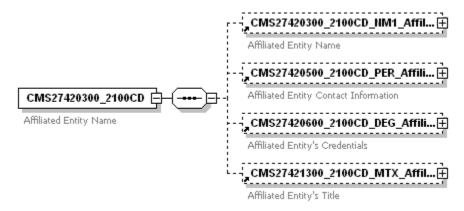


Exhibit 2-53 Element CMS27420300\_2100CD Structure

#### 2.3.30.1 Child Elements

- CMS27420300\_2100CD\_NM1\_AffiliatedEntityName: This element contains authorized official, contact person, other provider name details.
- CMS27420500\_2100CD\_PER\_AffiliatedEntityContactInformation: This element contains authorized official, contact person contact information details.
- CMS27420600\_2100CD\_DEG\_AffiliatedEntitySCredentials: This element contains authorized official, contact person credentials details.
- CMS27421300\_2100CD\_MTX\_AffiliatedEntitySTitle: This element contains authorized official, contact person title information.

#### 2.3.30.2 Used by

Element: CMS27420100\_2000C

#### 2.3.30.3 Annotation

Documentation: Affiliated Entity Name

#### 2.3.30.4 Source

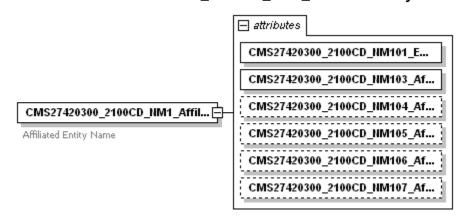
## 2.3.31 Element: CMS27420300\_2100CD\_NM1\_AffiliatedEntityName

This element contains authorized official, contact person, or provider other name information. The element is defined as Optional by the EFI XML schema.

#### Note:

- NPPES requires contact person information for both its Entity Type 1 and 2 providers. The EFI process will enforce this requirement when validating the provider records in an XML file. If a provider record does not have at least one instance of this element with contact person information in it, then this record will fail EFI process validation and it will be marked as rejected in the response file (error code 02).
- NPPES requires authorized official information for its Entity Type 2 providers (organizations). The EFI process will enforce this requirement when validating the provider records in an XML file. If a provider record does not have at least one instance of this element with authorized official information in it, then this record will fail EFI process validation and it will be marked as rejected in the response file (error code 02).

Exhibit 2-54 Element CMS27420300\_2100CD\_NM1\_AffiliatedEntityName Structure



## 2.3.31.1 Used by

Element: CMS27420300\_2100CD

#### 2.3.31.2 Attributes

# Exhibit 2-55 CMS27420300\_2100CD\_NM1\_AffiliatedEntityName Attributes

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27420300_ 2100CD_NM101 _EntityIdentifier Code	String	Required	3	Code Description:  1K – Franchisor  2D – Miscellaneous Health Care Facility  2K – Partnership  80 – Hospital  87 – Pay-to-Provider BB – Business Partner BV – Billing Service LZ – Local Chain NK – National Chain NN – Network Name S0 – Sole Proprietor J2 – Authorized Official XD – Alias (Provider Other Name Type) VI – Contact Person	This attribute contains the code that determines whether the element is storing authorized representative, contact person, or other provider name information.  Note:  If the attribute contains a value outside the "Allowed Values" list then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.  NPPES only collects information on authorized officials, other provider name information (Alias), and contact personnel (J2, XD, VI). The EFI process will ignore any other information.  NPPES does not collect Authorized Official Information for its Entity Type 1 providers (individuals). The EFI process will ignore authorized official information if it is part of an Entity Type 1 provider record.

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27420300_ 2100CD_NM103 _AffiliatedEntityL astOrOrganizati onName	String	Required	70		<ul> <li>This attribute contains:</li> <li>Provider other last name if the affiliated entity type code is XD and the provider is an individual (Entity Type 1),</li> <li>Organization other name if the affiliated entity type code is XD and the provider is an organization (Entity Type 2),</li> <li>Authorized official last name if the affiliated entity type code is J2, or</li> <li>Contact person last name if the affiliated entity type code is VI.</li> <li>Note: If the attribute contains a value with length exceeding the maximum allowed (70</li> </ul>
					characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.  Refer to Table-2-4 (Affiliated Entity Name) below for more details.
CMS27420300_ 2100CD_NM104 _AffiliatedEntityF irstName	String	Optional	35		Note: If the attribute contains a value with length exceeding the maximum allowed (35 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.  Refer to Table 2-4 (Affiliated Entity Name) below for more details.

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27420300_ 2100CD_NM105 _AffiliatedEntity MiddleName	Sting	Optional	25		Note: If the attribute contains a value with length exceeding the maximum allowed (25 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.
					Refer to Table 2-4 (Affiliated Entity Name) below for more details.
CMS27420300_ 2100CD_NM106 _AffiliatedEntity NamePrefix	String	Optional	10		Note: If the attribute contains a value with length exceeding the maximum allowed (10 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.  Refer to Table 2-4 (Affiliated Entity Name) below for more details.
CMS27420300_ 2100CD_NM107 _AffiliatedEntity NameSuffix	String	Optional	10		Note: If the attribute contains a value with length exceeding the maximum allowed (10 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.  Refer to Table 2-4 (Affiliated Entity Name) below for more details.

# 2.3.31.3 Annotation

Documentation: Affiliated Entity Name

## 2.3.31.4 Source

 $<\!\!xs: element\ name = "CMS27420300\_2100CD\_NM1\_AffiliatedEntityName" >$ 

- <xs:annotation>
- <xs:documentation>Affiliated Entity Name</xs:documentation>
- </xs:annotation>
- <xs:complexType>
- <xs:attribute name="CMS27420300\_2100CD\_NM101\_EntityIdentifierCode" use="required">

```
<xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="3"/>
     <xs:enumeration value="1K"/>
     <xs:enumeration value="2D"/>
     <xs:enumeration value="2K"/>
     <xs:enumeration value="80"/>
     <xs:enumeration value="87"/>
     <xs:enumeration value="BB"/>
     <xs:enumeration value="BV"/>
     <xs:enumeration value="LZ"/>
     <xs:enumeration value="NK"/>
     <xs:enumeration value="NN"/>
     <xs:enumeration value="S0"/>
     <xs:enumeration value="J2"/>
     <xs:enumeration value="XD"/>
     <xs:enumeration value="VI"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27420300_2100CD_NM103_AffiliatedEntityLastOrOrganizationName"</p>
use="required">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="70"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27420300_2100CD_NM104_AffiliatedEntityFirstName" use="Optional">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="35"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27420300 2100CD NM105 AffiliatedEntityMiddleName" use="Optional">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="25"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27420300_2100CD_NM106_AffiliatedEntityNamePrefix" use="Optional">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="10"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27420300_2100CD_NM107_AffiliatedEntityNameSuffix" use="Optional">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="10"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
```

</xs:complexType> </xs:element>

Exhibit 2-56 Affiliated Entity Name: Authorized Official Fields

Code	Affiliated Entity	Annotation
J2	Last Name	Entity Type 1 providers (individuals):
		Authorized Official information is not collected for Entity Type 1 providers. The EFI process ignores such information.
		Entity Type 2 providers (organizations):
		This is a required field. If the value is not provided for this field in the attribute CMS27420300_2100CD_NM103_AffiliatedEntityLastOrOrganizationName then the provider record will fail EFI process validation. The record will be marked as rejected with error code "02" in the response file.
		The maximum length allowed for last names in NPPES is 35 characters. If the value exceeds the NPPES maximum length, the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.
J2	First Name	This is a required field. If the value is not provided for this field in the attribute "CMS27420300_2100CD_NM104_AffiliatedEntityFirstName"then the provider record will fail EFI process validation. The record will be marked as rejected with error code "02" in the response file.
		The maximum length allowed for first names in NPPES is 20 characters. If the value exceeds the NPPES maximum length, the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.
J2	Middle Name	This field is Optional. The maximum length allowed for middle names in NPPES is 20 characters. If the value provided in the attribute CMS27420300_2100CD_NM105_AffiliatedEntityMiddleName exceeds the NPPES maximum length, the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.
J2	Name Prefix	This field is Optional. The values allowed by NPPES for this field are: Ms., Mr., Miss, Mrs., Dr., and Prof. If the value provided in attribute CMS27420300_2100CD_NM106_AffiliatedEntityNamePrefix does not belong in the above list, the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.
		The maximum length allowed for name prefixes in NPPES is 5 characters. If the value exceeds the NPPES maximum length, the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.
J2	Name Suffix	This field is Optional. The values allowed by NPPES for this field are: Jr., Sr., I, II, III, IV, V, VI, VII, III, IX, and X. If the value provided in the attribute CMS27420300_2100CD_NM107_AffiliatedEntityNameSuffix does not belong in the above list, the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.
		The maximum length allowed for name suffixes in NPPES is 5 characters. If the value exceeds the NPPES maximum length, the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.

# Exhibit 2-57 Affiliated Entity Name: Alias (Provider Other Name Type) Fields

<sup>\*</sup> Other names are Optional for both Entity Type 1 and 2 providers in NPPES. However, once an "Other Name" element is created, the following rules apply:

Code	Affiliated Entity	Annotation
XD	Last Name (Other	Entity Type 1 providers:
	Organization Name)	This is a required field. If the value is not provided for this field in the attribute CMS27420300_2100CD_NM103_AffiliatedEntityLastOrOrganizationName then the provider record will fail EFI process validation. The record will be marked as rejected with error code "02" in the response file.
		The maximum length allowed for last names in NPPES is 35 characters. If the value exceeds the NPPES maximum length, the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.
		Entity Type 2 providers:
		This is a required field. If the value is not provided for this field in the attribute CMS27420300_2100CD_NM103_AffiliatedEntityLastOrOrganizationName then the provider record will fail EFI process validation. The record will be marked as rejected with error code "02" in the response file.
		The maximum length allowed for organization names in NPPES is 70 characters. The EFI XML schema limit is 60 characters. The EFI process will only store the first 60 characters of the other organization name in the response file in order to avoid validation errors against the schema.
XD	First Name	Entity Type 1 providers:
		This is a required field. If the value is not provided for this field in the attribute "CMS27420300_2100CD_NM104_AffiliatedEntityFirstName"then the provider record will fail EFI process validation. The record will be marked as rejected with error code "02" in the response file.
		The maximum length allowed for first names in NPPES is 20 characters. If the value exceeds the NPPES maximum length, the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.
		Entity Type 2 providers:
		The first name information is ignored by the EFI process.
XD	Middle Name	Entity Type 1 providers:
		This field is Optional. The maximum length allowed for middle names in NPPES is 20 characters. If the value provided in the attribute CMS27420300_2100CD_NM105_AffiliatedEntityMiddleName exceeds the NPPES maximum length, the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.
		Entity Type 2 providers:
		The middle name information is ignored by the EFI process
XD	Name Prefix	Entity Type 1 providers:
		This field is Optional. The values allowed by NPPES for this field are: Ms., Mr., Miss, Mrs., Dr., and Prof. If the value provided in attribute CMS27420300_2100CD_NM106_AffiliatedEntityNamePrefix does not belong in the above list, the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.
		The maximum length allowed for name prefixes in NPPES is 5 characters. If the value exceeds the NPPES maximum length, the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.
		Entity Type 2 providers:
		The name prefix information is ignored by the EFI process.

Code	Affiliated Entity	Annotation
XD	Name Suffix	<ul> <li>Entity Type 1 providers:         This field is Optional. The values allowed by NPPES for this field are: Jr., Sr., I, II, III, IV, V, VI, VII, VIII, IX, and X. If the value provided in the attribute CMS27420300_2100CD_NM107_AffiliatedEntityNameSuffix does not belong in the above list, the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.         The maximum length allowed for name suffixes in NPPES is 5 characters. If the value exceeds the NPPES maximum length, the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.     </li> <li>Entity Type 2 providers:         The name prefix information is ignored by the EFI process.     </li> </ul>

# **Exhibit 2-58 Affiliated Entity Name: Contact Person Fields**

NPPES requires contact information for both Entity Type 1 and 2 providers.

Code	Affiliated Entity	Annotation				
VI	Last Name	This is a required field. If the value is not provided for this field in the attribute CMS27420300_2100CD_NM103_AffiliatedEntityLastOrOrganizationName then the provider record will fail EFI process validation. The record will be marked as rejected with error code "02" in the response file.				
		The maximum length allowed for last names in NPPES is 35 characters. If the value exceeds the NPPES maximum length, the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.				
VI	First Name	This is a required field. If the value is not provided for this field in the attribute "CMS27420300_2100CD_NM104_AffiliatedEntityFirstName"then the provider record will fail EFI process validation. The record will be marked as rejected with error code "02" in the response file.				
		The maximum length allowed for first names in NPPES is 20 characters. If the value exceeds the NPPES maximum length, the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.				
VI	Middle Name	This field is Optional. The maximum length allowed for middle names in NPPES is 20 characters. If the value provided in the attribute CMS27420300_2100CD_NM105_AffiliatedEntityMiddleName exceeds the NPPES maximum length, the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.				
		The maximum length allowed for name prefixes in NPPES is 5 characters. If the value exceeds the NPPES maximum length, the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.				
VI	Name Prefix	This field is Optional. The values allowed by NPPES for this field are: Ms., Mr., Miss, Mrs., Dr., and Prof. If the value provided in attribute CMS27420300_2100CD_NM106_AffiliatedEntityNamePrefix does not belong in the above list, the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.				

Code	Affiliated Entity	Annotation
VI	Name Suffix	This field is Optional. The values allowed by NPPES for this field are: Jr., Sr., I, II, III, IV, V, VI, VII, VIII, IX, and X. If the value provided in the attribute CMS27420300_2100CD_NM107_AffiliatedEntityNameSuffix does not belong in the above list, the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.
		The maximum length allowed for name suffixes in NPPES is 5 characters. If the value exceeds the NPPES maximum length, the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.

## 2.3.32 Element: CMS27420500\_2100CD\_PER\_AffiliatedEntityContactInformation

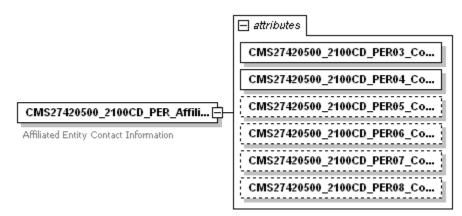
This element is defined as Optional in the EFI XML schema and it contains additional information about authorized officials, contact personnel, and/or provider other names, such as telephone numbers, extensions, faxes, and/or e-mail addresses. Whether the element describes an authorized official, contact person, or other provider name, depends on the value of the CMS27420300, 2100CD, NM101. EntityIdentifierCode attribute of element

CMS27420300\_2100CD\_NM101\_EntityIdentifierCode attribute of element CMS27420300\_2100CD\_NM1\_AffiliatedEntityName (see section 2.3.31).

#### **Note:**

- NPPES requires contact person information for both its Entity Type 1 and 2 providers. The contact person telephone number (which is stored in this element) is required information. The EFI process will enforce this requirement when validating the provider records in an XML file. If a provider record does not have at least one instance of this element with the contact person's telephone number in it, then this provider record will fail EFI process validation and it will be marked as rejected in the response file (error code 02).
- NPPES requires authorized official information for its Entity Type 2 providers (organizations). The authorized official telephone number (which is stored in this element) is required information. The EFI process will enforce this requirement when validating the provider records in an XML file. If a provider record does not have at least one instance of this element with the authorized official's telephone number in it, then this provider record will fail EFI process validation and it will be marked as rejected in the response file (error code 02).

Exhibit 2-59 Element CMS27420500\_2100CD\_PER\_AffiliatedEntityContactInformation Structure



#### 2.3.32.1 Used by

Element: CMS27420300\_2100CD

#### 2.3.32.2 Attributes

## Exhibit 2-60 Element CMS27420500\_2100CD\_PER\_AffiliatedEntityContactInformation **Attributes**

Name	Туре	Use	Maximum Length	Allowed Values	Annotation
CMS27420500_ 2100CD_PER0 3_Communicati onNumberQualif	String	Required	2	Code Description  EM – Electronic Mail  TE – Telephone	This attribute contains the code value that indicates whether the element is storing a telephone number or an e-mail address.
ier				Number	Note: If the attribute contains a value outside the "Allowed Values" list then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.  Refer to XExhibit 2-39X (Affiliated Entity Contact
					Information) below for more details.
CMS27420500_ 2100CD_PER0 4_Communicati onNumber	String	Required	256	Any valid String	This attribute contains the actual telephone number or email address depending on the code chosen above.
					Note: If the attribute contains a value with length exceeding the maximum allowed (256 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.
					Refer to XExhibit 2-39X (Affiliated Entity Contact Information) below for more details.

Name	Туре	Use	Maximum Length	Allowed Values	Annotation
CMS27420500_ 2100CD_PER0 5_Communicati onNumberQualif ier	String	Optional	2	Code Description  EM – Electronic Mail  EX – Telephone  Extension  FX – Facsimile  TE – Telephone  Number	This attribute contains the code value that indicates whether the element is storing a telephone number, extension, fax number, or an e-mail address.  Note: If the attribute contains a value outside the "Allowed Values" list then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.  Refer to XExhibit 2-39X (Affiliated Entity Contact Information) below for more details.
CMS27420500_ 2100CD_PER0 6_Communicati onNumber	String	Optional	256	Any valid String.	This attribute contains the actual telephone, fax number, extension, or e-mail address depending on the code chosen above.  Note: If the attribute contains a value with length exceeding the maximum allowed (256 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.  Refer to XExhibit 2-39X (Affiliated Entity Contact Information) below for more details.
CMS27420500_ 2100CD_PER0 7_Communicati onNumberQualif ier	String	Optional	2	Code Description  EM – Electronic Mail  EX – Telephone  Extension  FX – Facsimile  TE – Telephone  Number	This attribute contains the code value that indicates whether the element is storing a telephone number, extension, fax number, or an e-mail address.  Note: If the attribute contains a value outside the "Allowed Values" list then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.  Refer to Exhibit 2-39 (Affiliated Entity Contact Information) below for more details.

Name	Туре	Use	Maximum Length	Allowed Values	Annotation
CMS27420500_ 2100CD_PER0 8_Communicati onNumber	String	Optional	256	Any valid String.	This attribute contains the actual telephone, fax number, extension, or e-mail address depending on the code chosen above.
					Note: If the attribute contains a value with length exceeding the maximum allowed (256 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.  Refer to Exhibit 2-39 (Affiliated Entity Contact Information) below for more details.

#### 2.3.32.3 Annotation

Documentation: Affiliated Entity Contact Information

## 2.3.32.4 Source

```
<xs:element name="CMS27420500_2100CD_PER_AffiliatedEntityContactInformation">
 <xs:annotation>
  <xs:documentation>Affiliated Entity Contact Information
 </xs:annotation>
 <xs:complexType>
  <xs:attribute name="CMS27420500_2100CD_PER03_CommunicationNumberQualifier" use="required">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="2"/>
     <xs:enumeration value="EM"/>
     <xs:enumeration value="TE"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27420500_2100CD_PER04_CommunicationNumber" use="required">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="256"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27420500_2100CD_PER05_CommunicationNumberQualifier" use="Optional">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="2"/>
     <xs:enumeration value="EM"/>
     <xs:enumeration value="EX"/>
     <xs:enumeration value="FX"/>
     <xs:enumeration value="TE"/>
```

```
</xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27420500_2100CD_PER06_CommunicationNumber" use="Optional">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="256"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27420500_2100CD_PER07_CommunicationNumberQualifier" use="Optional">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="2"/>
     <xs:enumeration value="EM"/>
     <xs:enumeration value="EX"/>
     <xs:enumeration value="FX"/>
     <xs:enumeration value="TE"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27420500_2100CD_PER08_CommunicationNumber" use="Optional">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="256"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
 </xs:complexType>
</xs:element>
```

## Exhibit 2-61 Affiliated Entity Contact Information Structure: Authorized Official Field(s)

Code	Affiliated Entity	Annotation			
J2	Electronic Mail	Entity Type 1 providers (individuals):			
		Authorized Official information is not collected for Entity Type 1 providers.  The EFI process ignores such information.			
		Entity Type 2 providers (organizations):			
		NPPES does not collect e-mail addresses for authorized officials. The EFI process ignores such information.			
J2	Telephone Number	This is a required field. If the value is not provided for this field in the attribute CMS27420500_2100CD_PER04_CommunicationNumber, then the provider record will fail EFI process validation. The record will be marked as rejected with error code "02" in the response file.			
		NPPES requires that authorized official telephone numbers be between 10 and 20 numeric characters long. If the attribute contains a value that is not between 10 and 20 numeric characters long then the provider record will fail EFI process validation. The provider record will be marked as rejected with error code "01" in the response file.			
		NPPES stores only 1 authorized official telephone number. The EFI process will ignore any additional telephone numbers provided.			

Code	Affiliated Entity	Annotation
J2	Telephone Extension	This is an Optional field. The maximum length allowed in NPPES for telephone extensions is 5 numeric characters. If the value is provided for this field in the attribute CMS27420500_2100CD_PER06_CommunicationNumber (or CMS27420500_2100CD_PER08_CommunicationNumber) exceeds the NPPES maximum length, the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.
		NPPES stores only 1 authorized official telephone extension. The EFI process will ignore any additional telephone extensions provided.
J2	Fax	NPPES does not collect fax information for authorized officials. The EFI process ignores such information.

# Exhibit 2-62 Affiliated Entity Contact Information Structure: Alias (Provider Other Name) Fields

Code	Affiliated Entity	Annotation
XD	Electronic Mail Telephone Number Telephone Extension Fax	NPPES does not collect this information for other provider names. The EFI process ignores such information.

# **Exhibit 2-63 Affiliated Entity Contact Information Structure: Contact Person Fields**

Note: NPPES requires contact information for both Entity Type 1 and 2 providers.

Code	Affiliated Entity	Annotation			
VI	Electronic Mail	This is an Optional field. The maximum length allowed in NPPES for e-mail addresses is 100 characters. If the value is provided for this field in the attribute CMS27420500_2100CD_PER04_CommunicationNumber (or CMS27420500_2100CD_PER06_CommunicationNumber or CMS27420500_2100CD_PER08_CommunicationNumber) exceeds the NPPES maximum length, the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.  NPPES stores only 1 contact person e-mail address. The EFI process will ignore any additional e-mail addresses provided.			
VI	Telephone Number	This is a required field. If the value is not provided for this field in the attribute CMS27420500_2100CD_PER04_CommunicationNumber, then the provider record will fail EFI process validation. The record will be marked as rejected with error code "02" in the response file.  NPPES requires that contact person telephone numbers be between 10 and 20 numeric characters long. If the attribute contains a value that is not between 10			
		and 20 numeric characters long then the provider record will fail EFI process validation. The provider record will be marked as rejected with error code "01" in the response file.			
		NPPES stores only 1 contact person telephone number. The EFI process will ignore any additional telephone numbers provided.			

Code	Affiliated Entity	Annotation			
	Telephone Extension	This is an Optional field. The maximum length allowed in NPPES for telephone extensions is 5 numeric characters. If the value is provided for this field in the attribute CMS27420500_2100CD_PER06_CommunicationNumber (or CMS27420500_2100CD_PER08_CommunicationNumber) exceeds the NPPES maximum length, the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.			
		NPPES stores only 1 contact person telephone extension. The EFI process will ignore any additional telephone extensions provided			
VI	Fax	NPPES does not collect fax information for contact personnel. The EFI process ignores such information.			

## 2.3.33 Element: CMS27420600\_2100CD\_DEG\_AffiliatedEntitySCredentials

This element is defined as Optional in the EFI XML schema and it contains credential information about authorized officials, contact personnel, and/or provider other names. Whether the element describes an authorized official, contact person, or other provider name, depends on the value of the CMS27420300\_2100CD\_NM101\_EntityIdentifierCode attribute of element CMS27420300\_2100CD\_NM1\_AffiliatedEntityName (see section 2.3.31).

## Exhibit 2-64 CMS27420600\_2100CD\_DEG\_AffiliatedEntitySCredentials Structure



## 2.3.33.1 Used by

Element: CMS27420300\_2100CD

## 2.3.33.2 Attributes

#### Exhibit 2-65 CMS27420600\_2100CD\_DEG\_AffiliatedEntitySCredentials Attributes

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27420600_ 2100CD_DEG0 4_Description	String	Required	80	Any String.	This attributes contains credential(s) information for authorized officials, contact personnel, or a provider other name.
					Note: If the attribute contains a value with length exceeding the maximum allowed (80 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.
					Refer to Table 2-6 (Affiliated Entity Credential(s) Information) below for more details.

#### 2.3.33.3 Annotation

Documentation: Affiliated Entity's Credentials

## 2.3.33.4 Source

Exhibit 2-66 Affiliated Entity Credential(s) Information

Code	Affiliation Entity	Annotation				
J2	Authorized Official	Entity Type 1 providers (individuals):				
	Field(s): Credential(s)	<ul> <li>Authorized Official information is not collected for Entity Type 1 providers.</li> <li>The EFI process ignores such information.</li> </ul>				
		Entity Type 2 providers (organizations):				
		<ul> <li>This is an Optional field. The maximum length allowed for any credential in NPPES is 20 characters. If the value provided in the attribute CMS27420600_2100CD_DEG04_Description exceeds the NPPES maximum length, the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file</li> </ul>				
		NPPES stores only 1 authorized official credential(s) set. The EFI process will ignore any additional credential(s) sets provided.				
XD	Alias (Provider Other Name Type) Field(s): Credential(s)	Entity Type 1 providers:				
		This is an Optional field. The maximum length allowed for any credentials in NPPES is 20 characters. If the value provided in the attribute CMS27420600_2100CD_DEG04_Description exceeds the NPPES maximum length, the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.				
		NPPES stores only 1 other provider name credential(s) set. The EFI process will ignore any additional credential(s) sets provided.				
		Entity Type 2 providers:				
		Credentials information is not collected for Entity Type 2 providers. The EFI process ignores such information.				
VI	Contact Person Field(s):Credential(s)	This is an Optional field. The maximum length allowed for any credentials NPPES is 20 characters. If the value provided in the attribute CMS27420600_2100CD_DEG04_Description exceeds the NPPES maximum length, the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.				
		NPPES stores only 1 contact person credential(s) set. The EFI process will ignore any additional credential(s) sets provided.				

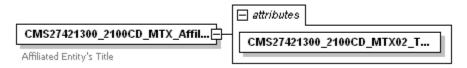
## 2.3.34 Element: CMS27421300\_2100CD\_MTX\_AffiliatedEntitySTitle

This element is defined as Optional in the EFI XML schema and it contains title information for authorized officials and contact personnel. Whether the element describes an authorized official or contact

person depends on the value of the CMS27420300\_2100CD\_NM101\_EntityIdentifierCode attribute of element CMS27420300\_2100CD\_NM1\_AffiliatedEntityName (see section 2.3.31).

**Note:** NPPES requires authorized official information for its Entity Type 2 providers (organizations). The authorized official title/position (which is stored in this element) is required information. The EFI process will enforce this requirement when validating the provider records in an XML file. If a provider record does not have at least one instance of this element, then this provider record will fail EFI process validation and it will be marked as rejected in the response file (error code 02).

Exhibit 2-67 Element CMS27421300\_2100CD\_MTX\_AffiliatedEntitySTitle Structure



## 2.3.34.1 Used by

Element: CMS27420300\_2100CD

#### 2.3.34.2 Attributes

#### Exhibit 2-68 Element CMS27421300\_2100CD\_MTX\_AffiliatedEntitySTitle Attributes

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27421300_21 00CD_MTX02_Te xtualData	String	Required	4096	Any String	This attribute contains title information.  Note:  If the attribute contains a value with length exceeding the maximum allowed (4096 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process.  The EFI participant will be notified via email only.  Refer to Table 2-7 (Affiliated Entity Title Information) below for more details.

## 2.3.34.3 Annotation

Documentation: Affiliated Entity's Title

#### 2.3.34.4 Source

</xs:attribute>
</xs:complexType>
</xs:element>

# **Exhibit 2-69 Affiliated Entity Title Information**

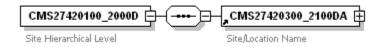
Code	Affiliated Entity	Annotation					
J2	Authorized Official	Entity Type 1 providers (individuals):					
	Field(s): Title	Authorized Official information is not collected for Entity Type 1 providers. The EFI process ignores such information.					
		Entity Type 2 providers (organizations):					
		This is a required field. If the value is not provided for this field in the attribute CMS27421300_2100CD_MTX02_TextualData then the provider record will fail EFI process validation. The record will be marked as rejected with error code "02" in the response file.					
		The maximum length allowed for title information in NPPES is 35 characters. If the value exceeds the NPPES maximum length, the provide record will fail EFI process validation. The record will be marked as reject with error code "01" in the response file.					
		NPPES stores only 1 authorized official title. The EFI process will ignore any additional titles provided.					
XD	Alias (Provider Other Name Type) Field(s): Title	NPPES does not collect this information for other provider names. The EFI process ignores such information.					
VI	Contact Person Fields: Title	This is an Optional field. The maximum length allowed for title information in NPPES is 35 characters. If the value exceeds the NPPES maximum length, the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.					
		NPPES stores only 1 contact person title. The EFI process will ignore any additional titles provided.					

# 2.3.35 Element: CMS27420100\_2000D

This element acts as a container for provider practice location information. It is defined as required in the EFI XML schema and occurs only once within provider records in an XML file.

**Note:** The absence of this element in a provider record will cause the XML file to fail schema validation. No response file is created. The entire XML file will be rejected. The EFI participant that submitted the file will be notified by e-mail only.

#### Exhibit 2-70 Element CMS27420100\_2000D Structure



#### 2.3.35.1 Child Elements

CMS27420300\_2100DA

2.3.35.2 Used by

Element: CMS274\_HealthCareProviderInformationProviderSiteGroup

#### 2.3.35.3 Annotation

Documentation: Site Hierarchical Level

#### 2.3.35.4 Source

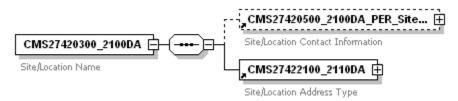
```
<xs:element name="CMS27420100_2000D">
    <xs:annotation>
    <xs:documentation>Site Hierarchical Level</xs:documentation>
    </xs:annotation>
    <xs:complexType>
    <xs:sequence>
        <xs:element ref="CMS27420300_2100DA"/>
        </xs:sequence>
        </xs:complexType>
    </xs:complexType>
</xs:complexType>
</xs:element>
```

# 2.3.36 Element: CMS27420300 2100DA

This element acts as a container for provider practice location contact information, which includes practice location telephone numbers and extensions, and fax numbers. It is defined as required in the EFI XML schema and occurs only once within provider records in an XML file.

**Note:** The absence of this element in a provider record will cause the XML file to fail schema validation. No response file is created. The entire XML file will be rejected. The EFI participant that submitted the file will be notified by e-mail only.

Exhibit 2-71 Element CMS27420300 2100DA Structure



#### 2.3.36.1 Child Elements

CMS27420500 2100DA PER SiteLocationContactInformation CMS27422100 2110DA

#### 2.3.36.2 Used by

Element: CMS27420100\_2000D

#### 2.3.36.3 Annotation

Documentation: Site/Location Name

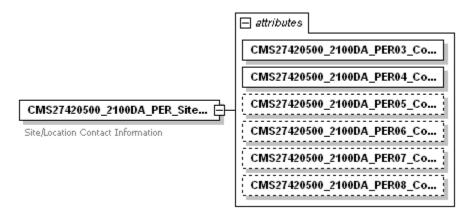
#### 2.3.36.4 Source

# 2.3.37 Element: CMS27420500 2100DA PER SiteLocationContactInformation

This element is defined as Optional in the EFI XML schema and it contains information, such as practice location telephone numbers, extensions, fax numbers, etc. This element can occur more than once inside provider records in an XML file.

**Note:** NPPES requires practice location telephone numbers for all its providers. The EFI process will enforce this requirement when validating the provider records in an XML file. If a provider record does not have at least one instance of this element, then this provider record will fail EFI process validation and it will be marked as rejected in the response file (error code 02).

Exhibit 2-72 Element CMS27420500\_2100DA\_PER\_SiteLocationContactInformation Structure



# 2.3.37.1 Used by

Element: CMS27420300 2100DA

#### 2.3.37.2 Attributes

Exhibit 2-73 Element CMS27420500\_2100DA\_PER\_SiteLocationContactInformation Attributes

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27420500_ 2100DA_PER03 _Communication NumberQualifier	String	Required	2	Code Description: TE – Telephone Number	This attribute contains the code value indicating the type of contact information stored in the element.  Note: If the attribute contains a value outside the "Allowed Values" list then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27420500_ 2100DA_PER04 _Communication Number	String	Required	256	Any valid String	This attribute contains the actual data/value for the type of contact information described above. In this case, it would be the practice location telephone number.
					Note:
					If the attribute contains a value with length exceeding the maximum allowed (256 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.
					NPPES requires that telephone numbers of domestic practice locations be 10 digit numeric values, If the attribute contains a domestic telephone number that is not 10 digits and is not numeric then the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.
					Example:
					Accepted Telephone Number(s): 7032672269
					Unacceptable domestic Telephone Number(s): 703- 267-2269 or 703/267/2269 or 703267229, etc.

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27420500_ 2100DA_PER04 _Communication Number (continued)					NPPES requires that telephone numbers of foreign practice locations not exceed 20 characters. If the attribute contains a foreign telephone number that exceeds the maximum NPPES limit, then the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.  NPPES stores only 1 practice location telephone number. The EFI process ignores any additional telephone numbers that may be provided.
CMS27420500_ 2100DA_PER05 _Communication NumberQualifier	String	Optional	2	Code Description :  EM – Electronic Mail  EX – Telephone  Extension  FX – Facsimile  TE – Telephone  Number	This attribute contains the code value indicating the type of contact information stored in the element.  Note: If the attribute contains a value outside the "Allowed Values" list then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27420500_ 2100DA_PER06 _Communication Number	String	Optional	256	Any valid String	This attribute contains the actual data/value for the type of contact information described above. In this case, it would be the practice location telephone number.
					Note:
					If the attribute contains a value with length exceeding the maximum allowed (256 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.
					For telephone number formatting requirements, see the attribute CMS27420500_2100DA_PE R04_CommunicationNumber annotation comments.
					NPPES does not require a telephone extension for a practice location. However, if the telephone extension is provided, it cannot be more than 5 characters long. If the attribute contains a value that exceeds the NPPES maximum length, then the provider record will fail EFI process validation. The record will be marked as rejected with error code "01" in the response file.
					NPPES stores only 1 practice location fax number. The EFI process ignores any additional fax numbers that may be provided.

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27420500_ 2100DA_PER06 _Communication Number (continued)					NPPES stores only 1     practice location telephone     extension. The EFI process     ignores any additional     telephone extensions that
(continuou)					may be provided. Example:
					Accepted Telephone Extension Number(s): 123, 12345, etc.
					Unacceptable Telephone Extension Number(s): 123456, 123AC, ABC, etc.
					NPPES does not collect practice location e-mail addresses. The EFI process ignores such information
					NPPES does not require practice location fax numbers. If the fax number is provided however, it must obey the same formatting rules that apply to the practice location phone number.
CMS27420500_ 2100DA_PER07 _Communication NumberQualifier	String	Optional	2	Code- Description  EM – Electronic Mail  EX – Telephone  Extension  FX – Facsimile	See annotation comments for attribute CMS27420500_2100DA_PER0 5_CommunicationNumberQualif ier.
				TE – Telephone Number	
CMS27420500_ 2100DA_PER08 _Communication Number	String	Optional	256	Any valid String	See annotation comments for attribute CMS27420500_2100DA_PER0 6_CommunicationNumber.

# 2.3.37.3 Annotation

Documentation: Site/Location Contact Information

# 2.3.37.4 Source

- <xs:element name="CMS27420500\_2100DA\_PER\_SiteLocationContactInformation">
- <xs:annotation>
- <xs:documentation>Site/Location Contact Information/xs:documentation>
- </xs:annotation>
- <xs:complexType>
- <xs:attribute name="CMS27420500\_2100DA\_PER03\_CommunicationNumberQualifier" use="required">
  <xs:simpleType>
  - <xs:restriction base="xs:String ">

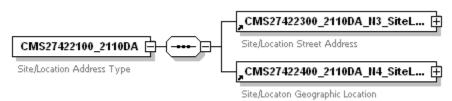
```
<xs:maxLength value="2"/>
     <xs:enumeration value="TE"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27420500_2100DA_PER04_CommunicationNumber" use="required">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="256"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27420500 2100DA PER05 CommunicationNumberQualifier" use="Optional">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="2"/>
     <xs:enumeration value="EM"/>
     <xs:enumeration value="EX"/>
     <xs:enumeration value="FX"/>
     <xs:enumeration value="TE"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27420500 2100DA PER06 CommunicationNumber" use="Optional">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="256"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27420500_2100DA_PER07_CommunicationNumberQualifier" use="Optional">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="2"/>
     <xs:enumeration value="EM"/>
     <xs:enumeration value="EX"/>
     <xs:enumeration value="FX"/>
     <xs:enumeration value="TE"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27420500_2100DA_PER08_CommunicationNumber" use="Optional">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="256"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
 </xs:complexType>
</xs:element>
```

# 2.3.38 Element: CMS27422100 2110DA

This element acts as a container for additional provider practice location address details, such as practice location address lines 1 and 2, city, state, country, zip code, etc. The element is defined as required by the EFI XML schema and occurs only once inside provider records in an XML file.

**Note:** The absence of this element in a provider record will cause the XML file to fail schema validation. The entire file will be rejected by the EFI process and no response file will be generated. The EFI participant that submitted the file will be notified via e-mail only.

Exhibit 2-74 Element CMS27422100\_2110DA Structure



# 2.3.38.1 Child Elements

- CMS27422300\_2110DA\_N3\_SiteLocationStreetAddress: This element provider practice location street address information
- CMS27422400\_2110DA\_N4\_SiteLocationGeographicLocation: This element contains provider practice location geographic details.

### 2.3.38.2 Used by

Element: CMS27420300\_2100DA

#### 2.3.38.3 Annotation

Documentation: Site/Location Address Type

#### 2.3.38.4 Source

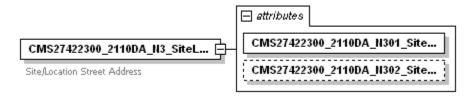
#### 2.3.39 Element: CMS27422300 2110DA N3 SiteLocationStreetAddress

This element is defined as required by the EFI XML schema and it has 2 attributes containing practice location street address line 1 and 2 information. The element occurs only once within provider records in an XML file.

**Note:** The absence of this element in a provider record will cause the XML file to fail schema validation. The entire file will be rejected by the EFI process and no response file will be generated. The EFI participant that submitted the file will be notified via e-mail only.

Note: Address standardization will be run using Universal Coder software against all domestic and military practice location addresses. See section 4.5 for details regarding address standardization.

# Exhibit 2-75 Element CMS27422300\_2110DA\_N3\_SiteLocationStreetAddress Structure



# 2.3.39.1 Used by

Element: CMS27422100\_2110DA

2.3.39.2 Attributes

# Exhibit 2-76 Element CMS27422300\_2110DA\_N3\_SiteLocationStreetAddress Attributes

Name	Туре	Use	Maximu m Length	Allowe d Values	Annotation
CMS27422300_ 2110DA_N301_ SiteOrLocationA ddressLine	String	Required	55	Any valid String.	This attribute contains Provider Practice Location Street Address line 1 information. Provider domestic, and military practice location street address line 1 is standardized using Universal Coder. See section 4.5 for details regarding address standardization Note:
					If the attribute contains a value with length exceeding the maximum allowed (55 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.
					This is a required field in NPPES.     Therefore, this attribute must be populated with a non-blank value (all spaces).     Otherwise the EFI process will mark the provider record as rejected with error code "02" in the response file.
					PO Box is not permitted in Practice Location Address Line 1. Any record submitted with "PO Box" (or can be standardized into a PO Box) will be rejected with error code "01" in the response file.

Name	Туре	Use	Maximu m Length	Allowe d Values	Annotation
CMS27422300_ 2110DA_N302_ SiteOrLocationA ddressLine	String	Optional	55	Any valid String.	This attribute contains Provider Practice Location Street Address line 2 information. Provider practice location street address line 2 will not be standardized in NPPES. See section 4.5 for details regarding address standardization Note:
					If the attribute contains a value with length exceeding the maximum allowed (55 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.

#### 2.3.39.3 Annotation

Documentation: Site/Location Street Address

#### 2.3.39.4 Source

```
<xs:element name="CMS27422300_2110DA_N3_SiteLocationStreetAddress">
 <xs:annotation>
  <xs:documentation>Site/Location Street Address</xs:documentation>
 </xs:annotation>
 <xs:complexType>
  <xs:attribute name="CMS27422300_2110DA_N301_SiteOrLocationAddressLine" use="required">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="55"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27422300_2110DA_N302_SiteOrLocationAddressLine" use="Optional">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="55"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
 </xs:complexType>
</xs:element>
```

# 2.3.40 Element: CMS27422400\_2110DA\_N4\_SiteLocationGeographicLocation

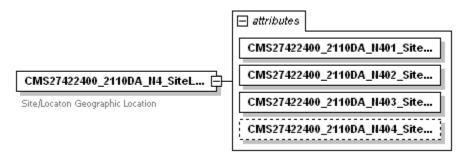
This element is defined as required by the EFI XML schema and it has 4 attributes containing practice location geographic details, such as city name, state, postal or zip code, and country. The element occurs only once within provider records in an XML file.

#### Note:

\* The absence of this element in a provider record will cause the XML file to fail schema validation. The entire file will be rejected by the EFI process and no response file will be generated. The EFI participant that submitted the file will be notified via e-mail only.

- \* NPPES accepts domestic, military, and foreign addresses for NPI Provider's Practice Location Addresses. The EFI process will determine the type of practice location address, whether it is domestic or foreign by examining the value of the country code.
- \* To determine whether the practice location address is a military address or not, the EFI system looks at the city name and the state code along with the country code. If the country code is "US", and the city name is either APO or FPO, and the state code is either AA, AE, or AP then the address will be treated as a Military Address.

Exhibit 2-77 Element CMS27422400\_2110DA\_N4\_SiteLocationGeographicLocation Structure



2.3.40.1 Used by

Element: CMS27422100\_2110DA

2.3.40.2 Attributes

Exhibit 2-78 Element CMS27422400\_2110DA\_N4\_SiteLocationGeographicLocation Attributes

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27422400_ 2110DA_N401_ SiteOrLocationCi tyName	String	Required	40	Any valid String.	This attribute contains the provider practice location city name. Provider domestic and military practice location address city name is standardized using Universal Coder. See section 4.5 for details regarding address standardization  Note:
					If the attribute contains a value with length exceeding the maximum allowed (40 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.
					This is a required field in NPPES. Therefore, this attribute must be populated with a non-blank value (all spaces). Otherwise the EFI process will mark the provider record as rejected with error code "02" in the response file.

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27422400_ 2110DA_N402_ SiteOrLocationSt ateCode	String	Required	40	Any valid String.	This attribute contains the provider practice location state code. Provider domestic and military practice location address state code is standardized using Universal Coder. See section 4.5 for details regarding address standardization
					Note:  • If the attribute contains a value with length exceeding the maximum allowed (40 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will
					<ul> <li>be notified via e-mail only.</li> <li>This is a required field in NPPES. Therefore, this attribute must be populated with a non-blank value (all spaces). Otherwise the EFI process will mark the provider record as rejected with error code "02" in the response file.</li> </ul>
					If the address is domestic, the attribute can only contain values from the U.S. state codes standard list. Otherwise, the EFI process will mark the provider record as rejected with error code "01" in the response file.
CMS27422400_ 2110DA_N403_ SiteOrLocationP ostalZoneOrZipC ode	String	Required	20	Any valid String.	This attribute contains the provider practice location address postal or zip code. Provider domestic and military practice location address zip code is standardized using Universal Coder. See section 4.5 for details regarding address standardization
					Note:  • If the attribute contains a value with length exceeding the maximum allowed (20 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.
					This attribute must be populated with a non-blank value (all spaces). In addition, zip codes must be either 5 or 9 digits long (numeric). Otherwise the EFI process will mark the provider record as rejected with error code "02" in the response file.
					NPPES allows zip codes to be up to 9 characters long (5 or 9) and foreign postal codes up to 20 characters long.

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27422400_ 2110DA_N404_ SiteOrLocationC	String	Optional	3	Any valid String.	This attribute contains the provider mailing address country code.  Note:
ountryCode					If the attribute contains a value with length exceeding the maximum allowed (3 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.
					The EFI process uses this field to determine whether it is working with a domestic or foreign address. If the country code is U.S then the EFI process treats the practice location address as domestic and applies the appropriate validations.
					Practice Location country code must be from the ISO standard list. Otherwise the EFI process will mark the provider record as rejected with error code "01" in the response file.
					Practice Location country code is a required field in NPPES. Therefore, this attribute must be populated with a non-blank value (all spaces). Otherwise the EFI process will mark the provider record as rejected with error code "02" in the response file.

#### 2.3.40.3 Annotation

Documentation: Site/Location Geographic Location

#### 2.3.40.4 Source

```
<:element name= »CMS27422400_2110DA_N4_SiteLocationGeographicLocation »>
 <:annotation>
  <:documentation>Site/Location Geographic Location</:documentation>
 </xs:annotation>
 <xs:complexType>
  <xs:attribute name="CMS27422400_2110DA_N401_SiteOrLocationCityName" use="required">
   <xs:simpleType>
    <xs:restriction base="xs:String">
     <xs:maxLength value="40"/>
    </:restriction>
   </:simpleType>
  </:attribute>
  <xs:attribute name="CMS27422400_2110DA_N402_SiteOrLocationStateCode" use="required">
   <xs:simpleType>
    <xs:restriction base="xs:String">
     <xs:maxLength value="40"/>
    </:restriction>
```

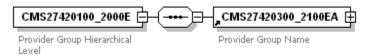
```
</:simpleType>
  </:attribute>
  <xs:attribute name="CMS27422400_2110DA_N403_SiteOrLocationPostalZoneOrZipCode" use="required">
   <xs:simpleType>
    <xs:restriction base="xs:String">
     <xs:maxLength value="20"/>
    </:restriction>
   </:simpleType>
  </:attribute>
  <xs:attribute name="CMS27422400_2110DA_N404_SiteOrLocationCountryCode" use="Optional">
   <xs:simpleType>
    <xs:restriction base="xs:String">
     <xs:maxLength value="3"/>
    </:restriction>
   </:simpleType>
  </:attribute>
 </xs:complexType>
</xs:element>
```

#### 2.3.41 Element: CMS27420100 2000E

This element acts as a container for any group related information that might apply to a provider record. The element is defined as Optional by the EFI XML schema and occurs at most once within provider records in an XML file.

**Note:** Only Entity Type 2 providers can be groups. The EFI process will ignore any group information supplied as part of an Entity Type 1 (individual) record.

#### Exhibit 2-79 Element CMS27420100\_2000E Structure



#### 2.3.41.1 Child Elements

CMS27420300\_2100EA

# 2.3.41.2 Used by

 $Element: \ CMS274\_Health Care Provider Information Provider Site Group$ 

#### 2.3.41.3 Annotation

Documentation: Provider Group Hierarchical Level

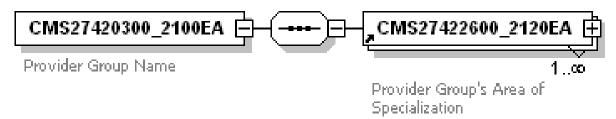
#### 2.3.41.4 Source

# 2.3.42 Element: CMS27420300 2100EA

This element acts as a container for any group name and group taxonomy related information that might apply to a provider record. The element is defined as required by the EFI XML schema and can occur only once within provider records in an XML file depending on the existence of its parent element CMS27420100\_2000E.

**Note:** The absence of this element in a provider record when the parent element CMS27420100\_2000E is provided will cause the XML file to fail schema validation. The entire file will be rejected by the EFI process and no response file will be generated. The EFI participant that submitted the file will be notified via e-mail only.

Exhibit 2-80 Element CMS27420300 2100EA Structure



#### 2.3.42.1 Child Elements

CMS27422600\_2120EA

# 2.3.42.2 Used by

Element: CMS27420100\_2000E

# 2.3.42.3 Annotation

Documentation: Provider Group Name

#### 2.3.42.4 Source

# 2.3.43 Element: CMS27422600\_2120EA

This element acts as a container for any group taxonomy related information that might apply to a provider record. The element is defined as required by the EFI XML schema and can occur more than once within provider records in an XML file.

#### Note:

• The absence of this element in a provider record when the parent element CMS27420300\_2100EA is provided will cause the XML file to fail schema validation. The entire file will be rejected by the EFI process and no response file will be generated. The EFI participant that submitted the file will be notified via e-mail only.

- Even though the schema does not specify an upper limit on the number of times this element can occur within a provider record, NPPES does require that no provider records have more than 15 unique taxonomies. This requirement is enforced by the EFI process, which ignores all additional taxonomies.
- The EFI system ignores Taxonomies that have the same taxonomy code, license number and state on file for that provider.

#### Exhibit 2-81 Element CMS27422600\_2120EA Structure



Provider Group's Area of Specialization

#### 2.3.43.1 Child Elements

CMS27422600\_2120EA\_LQ\_ProviderGroupSAreaOfSpecialization

# 2.3.43.2 Used by

Element: CMS27420300 2100EA

#### 2.3.43.3 Annotation

Documentation: Provider Group's Area of Specialization

#### 2.3.43.4 Source

#### 2.3.44 Element:

#### CMS27422600\_2120EA\_LQ\_ProviderGroupSAreaOfSpecialization

This element is defined as Optional by the EFI XML schema and it has 2 attributes containing group taxonomy information. This element can occur more than once within provider records in an XML file.

#### **Note:**

- The contents (attribute values) of this element must be the same as those of element CMS27422600\_2120CA\_LQ\_ProviderSAreaOfSpecialization (see Section 2.3.25). The EFI process will ignore the contents of this element otherwise.
- If there are multiple occurrences of this element then each instance will be compared side-by-side against each instance of the CMS27422600\_2120CA\_LQ\_ProviderSAreaOfSpecialization element (first instance of this element against the first instance of the provider taxonomies element, second instance of this element against the second instance of the provider taxonomies element, and so on). If the instances match, the EFI process will accept the contents of this element instance and mark this instance as a group taxonomy. Otherwise, it will ignore that information. Group taxonomies are classified as follows:

- **Single-Specialty Group**: If one occurrence of this element matches with one occurrence of CMS27422600\_2120CA\_LQ\_ProviderSAreaOfSpecialization element, the EFI process will accept contents of this element instance as "Single-Specialty" group taxonomy.
- **Multi-Specialty Group**: If more than one occurrences of this element matches with more than one occurrences of CMS27422600\_2120CA\_LQ\_ProviderSAreaOfSpecialization element, the EFI process will accept these instances as "Multi-Specialty" group taxonomies.
- Multiple Single-Specialty Group: EFI process does not currently support "Multiple Single-Specialty" group taxonomies.

If group taxonomy information is provided in this element, the number of these taxonomies must match that of taxonomies in CMS27422600\_2120CA\_LQ\_ProviderSAreaOfSpecialization (see Section 2.3.25). Otherwise, the record fails EFI process validation and is marked as rejected. If an EFI participant doesn't want to specify each taxonomy as a group taxonomy, the EFI participant still needs to create placeholders with this element: fill out the group taxonomy code with some integer number, say 0 (zero), and group taxonomy number with blank to make sure that the above rule is satisfied.

# Exhibit 2-82 Element CMS27422600\_2120EA\_LQ\_ProviderGroupSAreaOfSpecialization Structure



#### 2.3.44.1 Used by

Element: CMS27422600 2120EA

#### 2.3.44.2 Attributes

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27422600_ 2120EA_LQ01_ CodeListQualifie rCode	Integer	Required	3	Any valid integer.	This attribute contains the provider group area of specialization code. This is usually the first 2 digits of the provider's taxonomy number.
					Note:
					This attribute is not used by the EFI process.

Name	Туре	Use	Maximu m Length	Allowed Values	Annotation
CMS27422600_ 2120EA_LQ02_ ProviderGroupS	String	Required	30	Any valid String.	This attribute contains the provider group taxonomy number.
pecialtyCode					Note:  If the attribute contains a value with length exceeding the maximum allowed (30 characters) then the entire XML file will fail schema validation and it will be rejected as a result. No response file will be generated by the EFI process. The EFI participant will be notified via e-mail only.  Taxonomy codes are 10 characters long. If the attribute contains code values that are not 10 characters long, the record will fail EFI process validation. This
					record will be marked as rejected with error code "01" in the response file.  • If the attribute contains a taxonomy that does not exist in NPPES, the record will fail EFI process validation. The record will be marked as rejected with an error code "05" in the response file.
					If the attribute contains a taxonomy that does not belong to the type of provider in the record (e.g. an individual is assigned the taxonomy of a hospital), it will fail EFI process validation. The record will be marked as rejected with an error code "06" in the response file.

#### 2.3.44.3 Annotation

Documentation: Provider Group's Area of Specialization

#### 2.3.44.4 Source

```
<xs:element name="CMS27422600_2120EA_LQ_ProviderGroupSAreaOfSpecialization">
 <xs:annotation>
  <xs:documentation>Provider Group's Area of Specialization
 </xs:annotation>
 <xs:complexType>
  <xs:attribute name="CMS27422600_2120EA_LQ01_CodeListQualifierCode" use="required">
   <xs:simpleType>
    <xs:restriction base="xs:int">
     <xs:totalDigits value="3"/>
    </r></restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="CMS27422600_2120EA_LQ02_ProviderGroupSpecialtyCode" use="required">
   <xs:simpleType>
    <xs:restriction base="xs:String ">
     <xs:maxLength value="30"/>
    </xs:restriction>
```

```
</xs:simpleType>
</xs:attribute>
</xs:complexType>
</xs:element>
```

# 2.4 Sample XML File for New Request

See attached file: Sample\_EFIfileNewApps\_xml.pdf

# 2.5 Sample XML File for Modify Request:

 $See\ attached\ file:\ Sample\_EFI file Change Request\_xml.pdf$ 

# 3 EFI Special Considerations

# 3.1 Field Lengths

This section describes two specific situations that arise from discrepancies between the sizes of data elements allowed in NPPES versus the EFI XML schema:

- Scenario 1 A change request was previously performed and accepted through the Internet or the Enumerator on an existing active EFI record. The field(s) modified however, contained more characters than the EFI XML schema allows. A second change request is performed through EFI on other fields and an EFI response files is being generated with the latest EFI record in NPPES. The fields affected by the first change requests are larger than the EFI schema allows.
- With regard to certain provider information data items, such as address City Name and State Information, the number of characters allowed by NPPES differs from the number of characters allowed in the EFI XML schema. Any XML files that do not adhere to the schema rules will of-course fail EFI XML schema validation and get rejected by the EFI process. However, an enumerated record submitted via EFI can still receive a change request via conventional NPPES methods like paper or web that may make that record fail EFI XML schema validation at the time of response file creation. In order to avoid this scenario, the EFI process populates the attribute with only the number of characters allowed by the XML schema. For example, in the case of <CMS27422400\_2110CA\_N401\_ProviderCityName> which is the attribute that containing the city name, NPPES allows 40 characters while the EFI XML schema only allows 30 characters. If an Enumerator user edits an active EFI record, such that the city name now contains more than 30 characters, it will cause a schema validation error when a response file generates. Hence, the EFI process populates only the first 30 characters of this attribute when generating the response files in order to avoid EFI XML schema validation errors.
- Scenario 2 EFI XML request files (uploaded by EOR-s) contain records with data items that conform to the EFI XML schema, but have more characters than NPPES allows.
- EFI records in an XML file, that contain data items where the field length exceeds the maximum length allowed by NPPES, will be rejected by the EFI process. When the response file is created, the EFI process will mark such records with an error code "01". Furthermore, during the creation of the response file, the data contained in the fields that caused the rejection of the record, will be trimmed by the EFI process to the length allowed by NPPES.

#### 3.2 Special Characters in XML Files

Certain characters like & (ampersand) are treated as special characters by the XML parser and must be escaped in the XML input file if required to use them. The NPPES-EFI XML parser accepts all the well-known XML escape sequences. Following is a list of generally-known XML escape sequences.

Exhibit 3-1 Special	Characters	in	XML	Filers
-x opec.a.	J		<i>,</i>	

Special Character	Escape Sequence
quote (")	"
apostrophe (')	'
ampersand (&)	&
less than (<)	<
greater than (>)	>

Thus, if the value of the organization name attribute is Johnson & Johnson Inc., then it should be escaped as Johnson & Johnson Inc. in the input XML file.

Only certain special character(s) are allowed in the fields that are submitted through XML file via EFI process to the NPPES system. In any record, if any field contains character(s) that are not allowed then such records will be rejected. In the EFI response file for such records, the error code will be "01" and the error message will be "Disallowed character(s) found in [Group/Field Name] field ".

The table below lists the fields, allowed special character(s) in the fields, and their corresponding error message in EFI response file if the record is being rejected for disallowed special character(s).

**Exhibit 3-2 Fields, Allowed Special Characters and Error Messages** 

Field Name(s)	Allowed Special Character(s)	Error Message in EFI Response File
Individual Provider First Name, Middle Name, Last Name, and Credential(s)	Ampersand, apostrophe, colon, comma, forward slash, hyphen, left and right parentheses, period, pound sign, quotation mark, and semi-colon	Disallowed character(s) found in Provider Name field.
Individual Provider Other First Name, Middle Name, Last Name, and Credential(s)	Ampersand, apostrophe, colon, comma, forward slash, hyphen, left and right parentheses, period, pound sign, quotation mark, and semi-colon	Disallowed character(s) found in Provider Other Name field.
Organization Name, and Parent Legal Business Name (LBN)	Ampersand, apostrophe, "at" sign, colon, comma, forward slash, hyphen, left and right parentheses, period, pound sign, quotation mark, and semi-colon	Disallowed character(s) found in Organization Name field.
Organization Other Name	Ampersand, apostrophe, "at" sign, colon, comma, forward slash, hyphen, left and right parentheses, period, pound sign, quotation mark, and semi-colon	Disallowed character(s) found in Organization Other Name field.
Authorized Official First Name, Middle Name, Last Name, Credential(s), and Title	Ampersand, apostrophe, colon, comma, forward slash, hyphen, left and right parentheses, period, pound sign, quotation mark, and semi-colon	Disallowed character(s) found in Authorized Official field.
Both Domestic and Foreign Mailing Address Line1, Address Line2, City, and only Foreign Mailing Address Province or Territory	Ampersand, apostrophe, colon, comma, forward slash, hyphen, left and right parentheses, period, pound sign, quotation mark, and semi-colon. In addition, the Mailing Address Line 1 and Mailing Address Line 2 fields allow the "at" sign.	Disallowed character(s) found in Mailing Address Information field.
Foreign Mailing Address Telephone Number, Telephone Extension Number, Fax Number	Accept only digits and alphabet letters (upper and lower case).	Disallowed character(s) found in Mailing Address Phone, Extension, and/or Fax field.
Foreign Mailing Address Postal Code	Accept only digits, space, and alphabet letters (upper and lower case).	Disallowed character(s) found in Mailing Address Information field.

Field Name(s)	Allowed Special Character(s)	Error Message in EFI Response File
Both Domestic, and Foreign Practice Location Address Line1, Address Line2, City, and only Foreign Practice Location Address Province or Territory	Ampersand, apostrophe, colon, comma, forward slash, hyphen, left and right parentheses, period, pound sign, quotation mark, and semi-colon. In addition, the Practice Location Address Line 1 and Practice Location Address Line 2 fields allow the "at" sign	Disallowed character(s) found in Practice Address Information field.
Foreign Practice Location Address Telephone Number, Telephone Extension Number, and Fax Number	Accept only digits and alphabet letters (upper and lower case).	Disallowed character(s) found in Practice Address Phone, Extension, and/or Fax field.
Foreign Practice Location Address Postal Code	Accept only digits, space, and alphabet letters (upper and lower case).	Disallowed character(s) found in Practice Address Information field.
Other Identification (OID) Number and Description.	Ampersand, apostrophe, colon, comma, forward slash, hyphen, left and right parentheses, period, pound sign, quotation mark, and semi-colon. In addition, the Other Identification (OID) Description field allow the "at" sign	Disallowed character(s) found in Other ID Number or Description field.
Taxonomy License Number	Ampersand, apostrophe, colon, comma, forward slash, hyphen, left and right parentheses, period, pound sign, quotation mark, and semi-colon.	Disallowed character(s) found in Taxonomy License Number field.
Contact Person First Name, Middle Name, Last Name, Credential(s), and Title	Ampersand, apostrophe, colon, comma, forward slash, hyphen, left and right parentheses, period, pound sign, quotation mark, and semi-colon	Disallowed character(s) found in Contact Person Name field.
Contact Person Telephone Number, and Telephone Extension Number	Accept only digits and alphabet letters (upper and lower case).	Disallowed character(s) found in Contact Person Phone and/or Extension field.
Contact Person E-mail Address	"At" sign, hyphen, period, and underscore.	Disallowed character(s) found in Contact Person Email field.

# 3.3 XML File Naming Rules

XML file names may contain any valid characters; however, they should not contain any special characters or spaces. The allowed set of characters that can be used in constructing an XML File name should be contained in the subset defined as follows: [A-Z][a-z][0-9]. In addition to these, hyphen (-) and underscore (\_) may also be used as valid characters in defining an XML file name. The name of the zip file is limited to 7 alphanumeric characters while constructing the zip file from input XML file(s). Special characters are not allowed in the zip file name.

# 3.4 XML File Compression

NPPES EFI supports Zip files created by the latest versions of WinZip and PKZip, such as WinZip 9.0 and PKZip 8.0. Other Zip utilities that conform to the PKZip standard may work, but the support of them is not guaranteed. Outdated versions of Zip utilities are likely to be incompatible with NPPES EFI.

#### Appendix 4

#### 4.1 State Reference

**Exhibit 4-1 State Reference** 

STATE/U.S. FOREIGN TERRITORY CODE	STATE/U.S. FOREIGN TERRITORY NAME
AK	ALASKA
AL	ALABAMA
AR	ARKANSAS
AS	AMERICAN SAMOA
AZ	ARIZONA
CA	CALIFORNIA
СО	COLORADO
СТ	CONNECTICUT
DC	DISTRICT OF COLUMBIA
DE	DELAWARE
FL	FLORIDA
FM	MICRONESIA, FEDERATED STATES OF
GA	GEORGIA
GU	GUAM
HI	HAWAII
IA	IOWA
ID	IDAHO
IL	ILLINOIS
IN	INDIANA
KS	KANSAS
КУ	KENTUCKY
LA	LOUISIANA
MA	MASSACHUSETTS
MD	MARYLAND
ME	MAINE
МН	MARSHALL ISLANDS
М	MICHIGAN
MN	MINNESOTA
МО	MISSOURI

STATE/U.S. FOREIGN TERRITORY CODE	STATE/U.S. FOREIGN TERRITORY NAME
MP	MARIANA ISLANDS, NORTHERN
MS	MISSISSIPPI
MT	MONTANA
NC	NORTH CAROLINA
ND	NORTH DAKOTA
NE	NEBRASKA
NH	NEW HAMPSHIRE
NJ	NEW JERSEY
NM	NEW MEXICO
NV	NEVADA
NY	NEW YORK
ОН	ОНЮ
ОК	OKLAHOMA
OR	OREGON
PA	PENNSYLVANIA
PR	PUERTO RICO
PW	PALAU
RI	RHODE ISLAND
SC	SOUTH CAROLINA
SD	SOUTH DAKOTA
TN	TENNESSEE
TX	TEXAS
UT	UTAH
VA	VIRGINIA
VI	VIRGIN ISLANDS
VT	VERMONT
WA	WASHINGTON
WI	WISCONSIN
WV	WEST VIRGINIA
WY	WYOMING
ZZ	FOREIGN COUNTRY

# 4.2 Country Reference

**Note:** NPPES considers U.S. Foreign Territories to be domestic addresses. For this reason, the U.S. Foreign Territory codes are included in section 4.1 rather than in the table below:

**Exhibit 4-2 Country Reference** 

COUNTRY CODE	COUNTRY NAME
AD	ANDORRA
AE	UNITED ARAB EMIRATES
AF	AFGHANISTAN
AG	ANTIGUA AND BARBUDA
Al	ANGUILLA
AL	ALBANIA
AM	ARMENIA
AN	NETHERLANDS ANTILLES
AO	ANGOLA
AQ	ANTARCTICA
AR	ARGENTINA
AT	AUSTRIA
AU	AUSTRALIA
AW	ARUBA
AX	ÅLAND ISLANDS
AZ	AZERBAIJAN
ВА	BOSNIA AND HERZEGOVINA
ВВ	BARBADOS
BD	BANGLADESH
BE	BELGIUM
BF	BURKINA FASO
BG	BULGARIA
вн	BAHRAIN
ВІ	BURUNDI
ВЈ	BENIN
ВМ	BERMUDA
BN	BRUNEI DARUSSALAM
ВО	BOLIVIA
BR	BRAZIL

COUNTRY CODE	COUNTRY NAME
BS	BAHAMAS
ВТ	BHUTAN
BV	BOUVET ISLAND
BW	BOTSWANA
BY	BELARUS
BZ	BELIZE
CA	CANADA
СС	COCOS (KEELING) ISLANDS
CD	CONGO, THE DEMOCRATIC REPUBLIC OF THE
CF	CENTRAL AFRICAN REPUBLIC
CG	CONGO
СН	SWITZERLAND
CI	CÔTE D'IVOIRE
CK	COOK ISLANDS
CL	CHILE
СМ	CAMEROON
CN	CHINA
СО	COLOMBIA
CR	COSTA RICA
CS	SERBIA AND MONTENEGRO
CU	CUBA
CV	CAPE VERDE
СХ	CHRISTMAS ISLAND
CY	CYPRUS
CZ	CZECH REPUBLIC
DE	GERMANY
DJ	DJIBOUTI
DK	DENMARK
DM	DOMINICA
DO	DOMINICAN REPUBLIC
DZ	ALGERIA
EC	ECUADOR
EE	ESTONIA

COUNTRY CODE	COUNTRY NAME
EG	EGYPT
EH	WESTERN SAHARA
ER	ERITREA
ES	SPAIN
ET	ETHIOPIA
FI	FINLAND
FJ	FIJI
FK	FALKLAND ISLANDS (MALVINAS)
FO	FAROE ISLANDS
FR	FRANCE
GA	GABON
GB	UNITED KINGDOM
GD	GRENADA
GE	GEORGIA
GF	FRENCH GUIANA
GG	GUERNSEY
GH	GHANA
GI	GIBRALTAR
GL	GREENLAND
GM	GAMBIA
GN	GUINEA
GP	GUADELOUPE
GQ	EQUATORIAL GUINEA
GR	GREECE
GS	SOUTH GEORGIA AND THE SOUTH SANDWICH ISLANDS
GT	GUATEMALA
GW	GUINEA-BISSAU
GY	GUYANA
HK	HONG KONG
НМ	HEARD ISLAND AND MCDONALD ISLANDS
HN	HONDURAS
HR	CROATIA
HT	HAITI

COUNTRY CODE	COUNTRY NAME
HU	HUNGARY
ID	INDONESIA
IE	IRELAND
IL	ISRAEL
IM	ISLE OF MAN
IN	INDIA
Ю	BRITISH INDIAN OCEAN TERRITORY
IQ	IRAQ
IR	IRAN, ISLAMIC REPUBLIC OF
IS	ICELAND
IT	ITALY
JE	JERSEY
JM	JAMAICA
JO	JORDAN
JP	JAPAN
KE	KENYA
KG	KYRGYZSTAN
KH	CAMBODIA
KI	KIRIBATI
KM	COMOROS
KN	SAINT KITTS AND NEVIS
KP	KOREA, DEMOCRATIC PEOPLE'S REPUBLIC OF
KR	KOREA, REPUBLIC OF
KW	KUWAIT
KY	CAYMAN ISLANDS
KZ	KAZAKHSTAN
LA	LAO PEOPLE'S DEMOCRATIC REPUBLIC
LB	LEBANON
LC	SAINT LUCIA
LI	LIECHTENSTEIN
LK	SRI LANKA
LR	LIBERIA
LS	LESOTHO

COUNTRY CODE	COUNTRY NAME
LT	LITHUANIA
LU	LUXEMBOURG
LV	LATVIA
LY	LIBYAN ARAB JAMAHIRIYA
MA	MOROCCO
MC	MONACO
MD	MOLDOVA, REPUBLIC OF
MG	MADAGASCAR
MK	MACEDONIA, THE FORMER YUGOSLAV REPUBLIC OF
ML	MALI
MM	MYANMAR
MN	MONGOLIA
МО	MACAO
MQ	MARTINIQUE
MR	MAURITANIA
MS	MONTSERRAT
MT	MALTA
MU	MAURITIUS
MV	MALDIVES
MW	MALAWI
MX	MEXICO
MY	MALAYSIA
MZ	MOZAMBIQUE
NA	NAMIBIA
NC	NEW CALEDONIA
NE	NIGER
NF	NORFOLK ISLAND
NG	NIGERIA
NI	NICARAGUA
NL	NETHERLANDS
NO	NORWAY
NP	NEPAL
NR	NAURU

COUNTRY CODE	COUNTRY NAME
NU	NIUE
NZ	NEW ZEALAND
ОМ	OMAN
PA	PANAMA
PE	PERU
PF	FRENCH POLYNESIA
PG	PAPUA NEW GUINEA
PH	PHILIPPINES
PK	PAKISTAN
PL	POLAND
PM	SAINT PIERRE AND MIQUELON
PN	PITCAIRN
PS	PALESTINIAN TERRITORY, OCCUPIED
PT	PORTUGAL
PY	PARAGUAY
QA	QATAR
RE	RÉUNION
RO	ROMANIA
RU	RUSSIAN FEDERATION
RW	RWANDA
SA	SAUDI ARABIA
SB	SOLOMON ISLANDS
SC	SEYCHELLES
SD	SUDAN
SE	SWEDEN
SG	SINGAPORE
SH	SAINT HELENA
SI	SLOVENIA
SJ	SVALBARD AND JAN MAYEN
SK	SLOVAKIA
SL	SIERRA LEONE
SM	SAN MARINO
SN	SENEGAL

COUNTRY CODE	COUNTRY NAME
so	SOMALIA
SR	SURINAME
ST	SAO TOME AND PRINCIPE
SV	EL SALVADOR
SY	SYRIAN ARAB REPUBLIC
SZ	SWAZILAND
TC	TURKS AND CAICOS ISLANDS
TD	CHAD
TF	FRENCH SOUTHERN TERRITORIES
TG	TOGO
TH	THAILAND
TJ	TAJIKISTAN
TK	TOKELAU
TL	TIMOR-LESTE
TM	TURKMENISTAN
TN	TUNISIA
ТО	TONGA
TR	TURKEY
TT	TRINIDAD AND TOBAGO
TV	TUVALU
TW	TAIWAN
TZ	TANZANIA, UNITED REPUBLIC OF
UA	UKRAINE
UG	UGANDA
UM	UNITED STATES MINOR OUTLYING ISLANDS
US	UNITED STATES
UY	URUGUAY
UZ	UZBEKISTAN
VA	HOLY SEE (VATICAN CITY STATE)
VC	SAINT VINCENT AND THE GRENADINES
VE	VENEZUELA
VG	VIRGIN ISLANDS, BRITISH
VN	VIET NAM

COUNTRY CODE	COUNTRY NAME
VU	VANUATU
WF	WALLIS AND FUTUNA
WS	SAMOA
YE	YEMEN
YT	MAYOTTE
ZA	SOUTH AFRICA
ZM	ZAMBIA
ZW	ZIMBABWE

# 4.3 Frequently Asked Questions (FAQ) — EFI File and Record Rejection

# Exhibit 4-3 FAQ - EFI File and Record Rejection

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1. What are the prelin	minary items checks to determine why my EFI file has rejected?
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- 4. Will all the errors in my record appear in the first response file?
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- 11. A record rejected with a "Disallowed character(s) found..." error, but nothing appears wrong. What is the cause?
- 12. A provider has a foreign address that does not have a known province. How should this record be submitted?
  - 1. What are the preliminary checks to determine why my EFI file has rejected?
    - a. First verify that the file is valid against the XML schema.
      - Header Validation failed The same valid 6 digit Electronic File Interchange Organization (EFIO) number must appear for each record in the file. (CMS27420300\_2100AA\_NM109\_SubmitterIdentifier="123456") This number must be associated with the Electronic File Interchange Organization Representative (EOR) in order to be valid.
    - b. Second verify if the XML Schema Validations fail within the file. This is an error within any of the XML elements. The EOR must verify that the XML element name is accurate. For example:

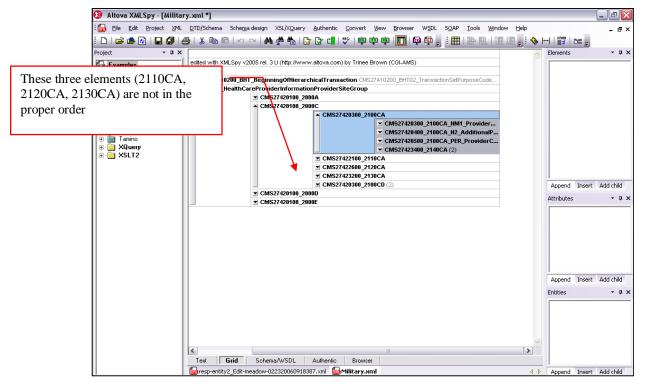
Invalid: - CMS27423200\_2140CA; ABC27423400\_2140CA

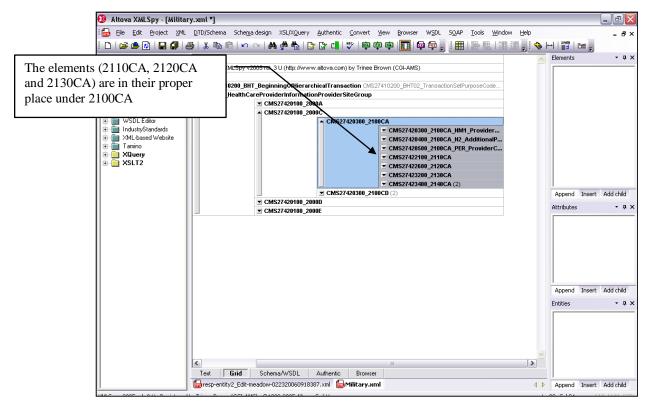
# Valid: - CMS27423400\_2140CA; CMS27423400\_2140CA

It is also important that each XML element is in the proper order within the file. For example a record where the XML elements CMS27422100\_2110CA, CMS27422600\_2120CA, CMS27422600\_2130CA are not in their proper place under the root element CMS27420300\_2100CA, will cause the entire file to reject.

**Note**: The examples below use the XMLSpy (XML editor software by Altova) Grid View:







**Exhibit 4-5 Sample Valid EFI Element Ordering** 

The following diagrams illustrate how to validate a XML file against the schema using XMLSpy:

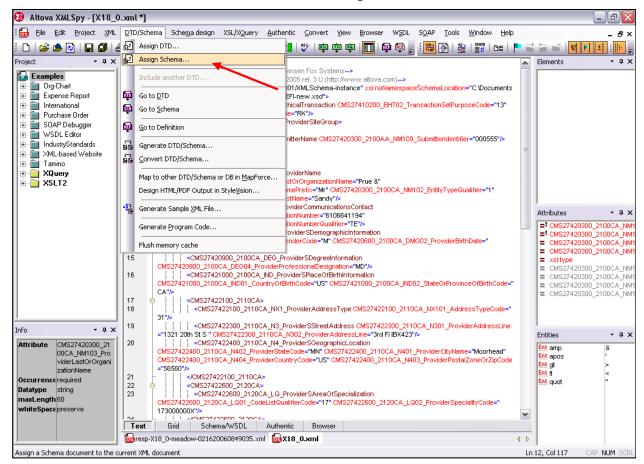


Exhibit 4-6 EFI XML Validation against EFI Schema – 1

Select the location of the XML schema then select the **OK** button.

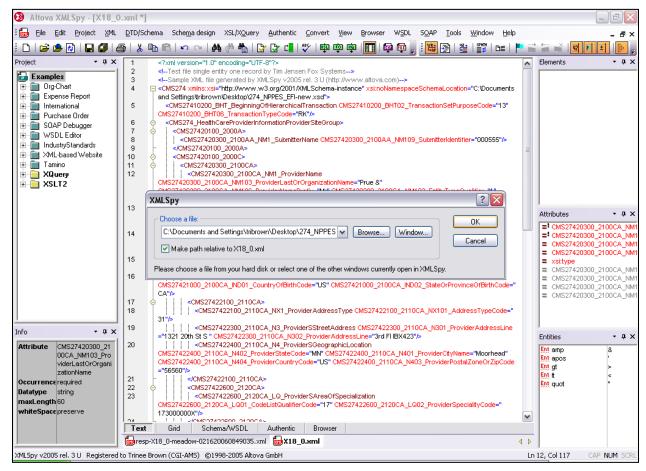


Exhibit 4-7 EFI XML Validation against EFI Schema - 2

Once the schema location is selected, click the validate file button at the top of the menu bar.

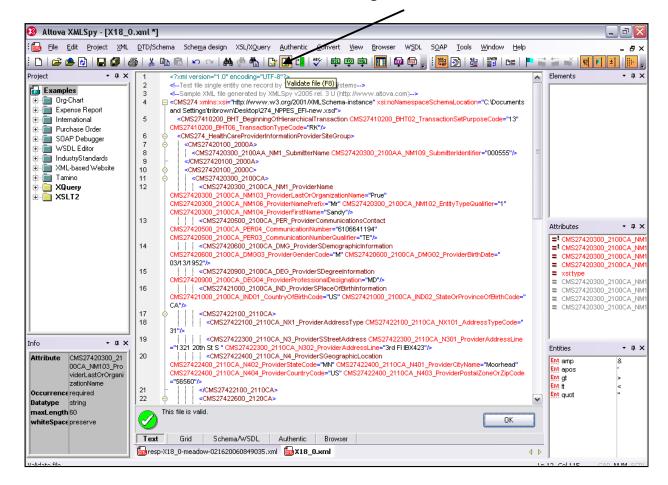


Exhibit 4-8 EFI XML Validation against EFI Schema - 2

Other possible causes for an entire EFI file to reject include:

- When the Transaction set purpose code is listed as something other than 13 (13 is for requests and 11 for response).
- When the Transaction Type code is listed as something other than RK (new request), and U5 (update/modify request).
- No xml file is provided within an uploaded zip file.
- When the original uploaded file size is ZERO.
- Parsing exceptions due to invalid/special characters in the xml data.
- EFI File Format Error Make sure you are using the ASCII file format.

#### 2. The majority of the records in my file rejected. What could be the cause?

The primary cause for records to reject is that they have various field errors. Some specific examples include:

a. Field edit errors such as invalid format for DOB x/x/xx or invalid email format nppes\*yahoo!com will cause a record to reject. Although the provided information did not fail the schema check, NPPES performs its' own separate edits of the information being submitted and will determine whether it is acceptable.

#### Example:

A provider submits a file with a record that has the Country of Birth and Mailing Address Country listed as "USA". While this is acceptable by the XML Schema; it will reject in NPPES. It should appear as "US" in the XML file.

b. Required fields missing is an error that results in omitting any fields that the NPPES system requires to successfully enumerate or process a change request on a record. The EOR should thoroughly check each record in the original file to verify that all required items are included.

#### **Examples:**

An EFI file does not include required information such as Entity Type, Organization Name, Provider First Name, etc.

A provider selects a code without the corresponding data:

For instance this user submitted the alias code (Provider Other Name in NPPES) without the actual name information.

```
<CMS27420300_2100CD_NM1_AffiliatedEntityName
CMS27420300_2100CD_NM101_EntityIdentifierCode="XD"
CMS27420300_2100CD_NM103_AffiliatedEntityLastOrOrganizationName=""/>
```

This user provided the "Other" type code "OT" and the corresponding identification number without the required description information

```
<CMS27423400_2140CA_REF_ProviderIdentificationNumbers</p>
CMS27423400_2140CA_REF01_ReferenceIdentificationQualifier="OT"
CMS27423400_2140CA_REF02_ProviderIdentifier="3319173"
```

CMS27423400 2140CA REF03 Description=""/>

3. How do I submit a group Taxonomy for a Type 2 Organization Provider within an EFI record without having it reject?

An Organization record can have both Type 2 Organization and Type 1 Individual taxonomies.

Type 1 Individual taxonomies are valid entries for Organizations by utilizing XML element <**CMS27420100\_2000E**> in the file. This element is used for Group Taxonomy entries. For example:

If a Type 2 provider record has a Group Type 1 taxonomy (Dental Providers 122400000X) they must enter it under both elements **CMS27422600\_2120CA>** and **CMS27420100\_2000E>**.

<CMS27422600\_2120EA>

#### 4. Will all the errors in my record appear in the first response file?

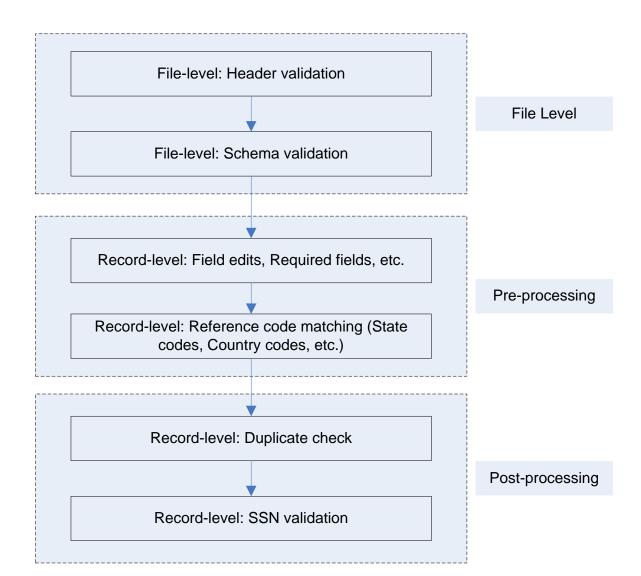
If a file is not rejected then a response file will be generated by NPPES. If the response file contains records with multiple errors, the file will reflect all pre-processing errors for a particular record. For example, if a record has more than one field edit error (e.g., DOB is missing and an invalid format is used for the Practice Location Phone Number), the response file will reflect both field edit errors by the Condition Indicator Codes 02 (for the missing DOB) and 01 (for the invalid Practice Location Phone Number format).

If a record has both field edit errors (e.g., DOB is missing) and post-processing errors (e.g., SSN Duplicate is found), the response file will only reflect the field edit error by the Condition Indication Code 01. If the field edit error is fixed and the file is resubmitted, the new response file will show the Condition Indicator Code 03 (for the SSN Duplicate error).

All pre-processing errors found in a record must be fixed before post-processing errors are included in the response file.

#### 5. What is the NPPES System flow for validating an EFI File?

When an EFI file is uploaded to the NPPES system, there are various levels of validations that are performed both at the file level and the individual record level:



**Exhibit 4-9 EFI XML Validation Levels** 

# 6. My file status is "Processing Completed" does that mean all the records have enumerated successfully?

No. Even though a response file generates and the status of the file is "Processing Completed" it does not mean that there are not rejected records in the file. Processing Completed simply means that the system has processed the entire file and no other actions will be taken by the system.

#### 7. I submitted an ITIN in a new application EFI file. Why did my record reject?

NPPES does not allow an Individual Taxpayer Identification Number (ITIN) to be submitted via the EFI process to enumerate a provider when an SSN is not also submitted. In the case where a provider was previously enumerated with only an ITIN, any subsequent EFI change request for the provider must contain the ITIN (for matching purposes) and the provider's SSN.

#### 8. Do I need the latest software to zip my files for submission?

Yes. Not having the latest version may cause issues with the file. NPPES EFI supports Zip files created by the latest versions of WinZip and PKZip, such as WinZip 9.0 and PKZip 8.0. Other Zip utilities that conform to the PKZip format may work, but the support of them is not guaranteed. Outdated versions of Zip utilities are likely to be incompatible with NPPES EFI.

#### 9. How much information will I receive if my entire file rejects?

If a file is rejected by the system the EOR will know by the file status on the EFI Search Results Page and will also receive an email notification. This notice will provide the EOR with a high level explanation of what caused their file to reject. Below is an example of the email the EOR would receive when a file rejects because the XML input file does not conform to the NPPES EFI Schema:

#### Exhibit 4-10 EFI Schema Rejection Notice

To: efirepresentative@somehost.com

Date: [System Generated]
Subject: National Provider Identifier

The National Provider Identifier System received the following EFI file that you submitted to <a href="https://nppes.cms.hhs.gov">https://nppes.cms.hhs.gov</a>.

[Original File Name]

[System Generated File Name]

This is to inform you that the EFI file has been rejected due to the following rejection reason:

XML schema errors - Make sure you are using the latest schema. To download the latest schema visit the NPI website at https://nppes.cms.hhs.gov.

Before resubmitting a file, please review your submission to make certain that it is consistent with the XML schema and that the information contained in each record is accurate and complete.

If you have any questions, you may:

- 1.) Refer to the NPI website (https://nppes.cms.hhs.gov), or
- 2.) Contact the NPI Enumerator at:

NPI Enumerator PO Box 6059

Fargo, ND 58108-6059

1-800-465-3203 (NPI Toll-Free)

1-800-692-2326 (NPI TTY)

customerservice@npienumerator.com

#### 10. A record rejected that has an ampersand in the provider name. What is the cause?

In XML it is known that specific special characters must be 'escaped' in order to be valid. The special characters (&, ', >, < and ") must be submitted in the XML file in the following way:

#### **Exhibit 4-11 EFI Special Characters**

XML file	Meaning
&	& ampersand
'	' apostrophe
>	> greater than sign
<	< less than sign
"	" quote

# 11. A record rejected with a "Disallowed character(s) found..." error, but nothing appears wrong. What is the cause?

The system may have identified a non ASCII printable character within the record. This may occur during a copy-and-paste action from a word processor or spreadsheet into a XML attribute. For example, the following mailing address zip code ("QC G1S 2Y4") was copied from MS Excel into the associated XML Spy attribute

"CMS27422400\_2110CA\_N403\_ProviderPostalZoneOrZipCode= QC G1S 2Y4".

Although the entries appear to be identical, the act of copying and pasting from the spreadsheet brought over a non ASCII printable character to the end of the text value that is not acceptable in NPPES for that particular field, and therefore resulted in the record being rejected with the error, "Disallowed character(s) found in Mailing Address Information field".

Special attention should be paid to any apparent "blank space" at the beginning or the end of any element/attribute value. It may be an invisible control character introduced by the copy-and-paste operation.

## 12. HA provider has a foreign address that does not have a known province. How should this record be submitted?

For providers that have foreign addresses where no province or territory exists, the EOR should repeat the 2-character ISO country code associated with the address in the XML attribute "CMS27422400\_2110CA\_N402\_ProviderStateCode".

# 13. In the EFI response file, the provider address is different from the one submitted in the corresponding request file. What is the cause?

NPPES is required to validate domestic and military mailing and practice location addresses submitted during the initial application process and the update process after enumeration has occurred. NPPES uses Universal Coder software for standardizing addresses. If a standardized address is returned, the standardized address is used in the EFI response files. Hence, the standardize address in the EFI response file may look different from the one submitted in the corresponding EFI request files for processing. See section 4.5 for details regarding address standardization.

### 4.4 EFI Response File Record Operation Codes and User Corrective Actions

This section provides additional information for EFI organization representatives (EOR-s) who work with EFI Response files. The section focuses on the possible code values of attribute **CMS27421400\_2100CA\_CRC03\_ConditionIndicator** in the EFI XML Response file (see Section X2.3.18X) and what actions, if any, an EOR can perform to correct potential EFI record error conditions.

In addition, attribute **CMS27421400\_2100CA\_CRC05\_ConditionDetail** provides valuable information when error is found with a record (see Section X2.3.18X).

**Exhibit 4-12 EFI Response File Record** 

Code Definition	OPRTN _IND_C D	Condition Detail Reasons	Corrective Action
Accepted	ОК	Record submission was successful	None
Unspecified Error	ER	If threshold limit is not set: Unspecified Error. If threshold limit is set: Record is not processed by the system due to previous records causing the file to reject due to threshold being reached. This code is not seen by the EOR in response files.	If threshold is not set: Resubmit records in a new EFI file. Response file will generate If threshold limit is set: Resubmit records in a new EFI file. Entire file will fail
Failed Field Edits	01	Invalid Entity Type. Invalid provider prefix Invalid provider suffix Other type of name not in the given list Invalid other provider prefix Invalid other provider suffix Invalid SSN format. An SSN has been found in the field Invalid EIN format. Invalid TIN format. Employer Identification Number (EIN) may not be all zeros An EIN has been found in the field A 9-digit number has been found in the field Provider new EIN is not a number. Provider new EIN is not a number (New EIN) may not be all zeros Parent Legal Business Name is provided when Organization Subpart indicator is set to 'no' Parent Tax Identification Number (TIN) may not be all zeros. Parent Tax Identification Number is provided when Organization Subpart indicator is set to 'no'	Correct the record and resubmit it in a new EFI file.

Code Definition	OPRTN _IND_C D	Condition Detail Reasons	Corrective Action
Failed Field Edits	01	Invalid provider date of birth	
(continued)		Invalid provider date of birth (not of format mm/dd/yyyy)	
		Provider Date of Birth must be prior to today's date.	
		Invalid provider date of birth (provider age is less than 18 years). A paper application must be submitted for providers under the age of 18.	
		Provider date of birth exceeded 106 years	
		Invalid provider country of birth	
		Invalid provider state of birth	
		Invalid provider gender	
		Invalid authorized official prefix	
		Invalid authorized official suffix	
		Mailing address state is not matched with the existing NPPES database state list	
		Mailing address foreign zip code length is more than 20 characters	
		Mailing address zip code is not a Number	
		Mailing address country code is not matched with the existing nppes database country list	
		Domestic Mailing address zip code is not a digit of length 5 or 9	
		Mailing Address Phone Number is not a number	
		Mailing address phone number is not a digit or length greater than 20	
		Mailing address phone number is not a 10 digit Number	
		Mailing Address Phone Number can not contain all zeros	
		Mailing Address Phone Number must be at least 10 digits	
		Mailing Address Phone Number Extension is not a number	
		Mailing Address Phone Number Extension can not contain all zeros	
		Mailing address fax number length greater than 20 characters	
		Mailing address fax number is not a 10 digit number	
		Mailing Address Fax Number is not a number	
		Mailing Address Fax Number can not contain all zeros	
		Mailing Address Fax Number must be at least 10 digits	
		Practice location address can not contain PO BOX like information	
		Practice location address state is not matched with the existing NPPES database state list	
		Practice location address zip code is not a Number	
		Practice location address foreign zip code length is more than 20 characters	
		Domestic Practice Location address zip code is not a digit of length 5 or 9	

Code Definition	OPRTN _IND_C D	Condition Detail Reasons	Corrective Action
Failed Field Edits	01	Practice location address country code is not matched with the existing NPPES database country list	
(continued)		Practice Location Address Phone Number is not a number	
		Practice Location Address Phone Number can not contain all zeros	
		Practice Location Address Phone Number must be at least 10 digits	
		Practice Location Address Phone Number Extension is not a number	
		Practice Location Address Phone Number Extension can not contain all zeros	
		Practice location address phone number length greater than 20 characters	
		Practice location address phone number is not a 10 digit Number	
		Practice location address fax number length greater than 20	
		Practice location address fax number is not a 10 digit number	
		Practice Location Address Fax Number is not a number	
		Practice Location Address Fax Number can not contain all zeros	
		Practice Location Address Fax Number must be at least 10 digits	
		Military mailing address zip code is not a Number	
		Military mailing address zip code is not a digit of length 5 or 9	
		Military practice address zip code is not a Number	
		Military practice address zip code is not a digit of length 5 or 9	
		Invalid other identification number state code	
		Other Identification Number length must be 6 to 15 characters long when type is OSCAR	
		Other Identification number must be alphanumeric and contain no special characters when type is OSCAR	
		Other Identification Number length must be 10 digits long when type is NSC	
		Other Identification Number must be numeric and contain no special characters when type is NSC	
		Other Identification Number type code [code] not supported in NPPES	
		Example: Other Identification Number type code 1A not supported in NPPES	
		Other ID Description not valid when issuer type code is [code]	
		Example: Other ID Description not valid when issuer type code is 1A	
		Invalid taxonomy License/State code	
		More than one Taxonomy selected as Primary Taxonomy	
		Group taxonomy number 193200000X is not allowed	

Code Definition	OPRTN _IND_C D	Condition Detail Reasons	Corrective Action
Failed Field Edits	01	Group taxonomy number 193400000X is not allowed	
(continued)		Number of taxonomy specialty codes does not match with number of codes or states or license number	
		Number of taxonomy specialty codes does not match with number of group specialty code provided	
		You cannot have two groups in same Record	
		Invalid contact person prefix	
		Invalid contact person suffix	
		Contact Person Phone Number is not a number	
		Contact Person Phone Number must be at least 10 digits	
		Contact Person Phone Number can not contain all zeros	
		Contact Person Phone Number Extension is not a number	
		Contact Person Phone Number Extension can not contain all zeros	
		Invalid contact person e-mail address	
		NPI number provided in new request	
		Invalid NPI number (NPI number is not a number of 10 digits)	
		Status reason reference code is not provided	
		Invalid status reason reference code (NOT from the existing list)	
		Status reason reference text NOT provided for other status reason reference code	
		Disallowed character(s) found in [Group/Field Name] field	
		Example: Disallowed character(s) found in Provider Name field.	
		[Field Name] field length is more than system will allow	
		Example: SSN field length is more than system will allow	
		EFI change request may not be submitted for a Sole Proprietor application.	
Required Fields	02	Provider first name is not provided	Correct the
Missing		Provider last Name is not provided	record and resubmit it in
(Based on NPPES requirements)		Organization provider name is not provided	a new EFI file
		SSN can not be blank.	
		EIN is not provided	
		Organization Subpart information is not provided	
		Parent Legal Business Name is not provided	
		Parent Tax Identification Number is not provided	
		Provider state of birth is not provided	
		Provider date of birth is not provided	
		Provider country of birth is not provided	
		Provider gender is not provided	

Code Definition	OPRTN _IND_C D	Condition Detail Reasons	Corrective Action
Required Fields Missing	02	Other Name Type Required when Other Name fields contain data.	
(Based on NPPES requirements)		Other Name Type Required when Other Organization Name contains data.	
(continued)		Provider Other Name Incomplete. Provider Other Name must contain First and Last Name.	
		Other Organization Name is incomplete. If an Other Name Type is selected, Other Organization Name must be entered.	
		Authorized official first name is not provided	
		Authorized official last name is not provided	
		Authorized official title is not provided	
		Authorized official phone number is not provided	
		Mailing address line 1 is not provided	
		Mailing address city name is not provided	
		Mailing address state is not provided	
		Mailing address zip code is not provided	
		Mailing address country code is not provided	
		Practice location address line 1 is not provided	
		Practice location address city name is not provided	
		Practice location address state is not provided	
		Practice location address zip code is not provided	
		Practice location address country code is not provided	
		Practice location address phone number is blank	
		Military mailing address line 1 is not provided	
		Military mailing address zip code is not provided	
		Military practice address line 1 is not provided	
		Military practice address phone number is a required field	
		Military practice address zip code is not provided	
		Other identification number id type is not provided	
		Other identification number is not provided	
		Other identification number Medicaid issuing state is not provided	
		Invalid other identification number id type	
		Other identification number description is blank when Type = OTHER	
		At least one taxonomy data should be provided	
		Missing Area of Specialization for either an Entity Type 1 or 2 record.	
		Taxonomy requires a state and license number	
		Taxonomy number can not be either empty or null	
		Primary Taxonomy not selected	

Code Definition	OPRTN _IND_C D	Condition Detail Reasons	Corrective Action
Required Fields Missing (Based on NPPES requirements) (continued)	02	Either contact person first Name or last Name or phone number is not provided  NPI number is not provided in change request  An EFI File with change requests does not include the SSN in the record for an existing provider in the NPI System.	
Exact Duplicate	03	SSN Dupes found within the uploaded XML file SSN Dupes found within the NPPES system Example: exact SSN match with an existing record	Correct the record and resubmit it in a new EFI file.
Rejected by NPI Enumerator	04	Rejected by NPI Enumerator  Example: failed because an enumerator staff user determined that this record already exists	Contact the NPI Enumerator and/or the provider for further information.
Invalid Taxonomy Code	05	[taxonomy code]:Invalid taxonomy number  Example: 0:Invalid taxonomy number  Invalid taxonomy number provided (taxonomy code match not found in existing nppes database list  Example: taxonomy code entered does not exist in the system	Correct the record and resubmit it in a new EFI file.
Taxonomy Code Mismatch	06	Taxonomy code mismatch  Example: a non-provider taxonomy is supplied, or an organization taxonomy is applied to an individual provider	Correct the record and resubmit it in a new EFI file.
SSN Validation Error	07	SSN Validation Failed Example: failed SSA validation	Correct the record and resubmit it in a new EFI file.
Mailing Address Error	08	Mailing Address not standardized Example: address codes not found/invalid	Contact Enumerator to resolve pending record or reject the application and resubmit in a new EFI file.

Code Definition	OPRTN _IND_C D	Condition Detail Reasons	Corrective Action
Location Address Error	09	Practice Location not standardized  Example: address codes not found/invalid	Contact Enumerator to resolve pending record or reject the application and resubmit in a new EFI file.
NPI not on File. Key field value in the EFI File is not found in the database. The corresponding NPI record in the NPI system is neither in active or change request status.	10	Provider last name not matched in change request Organization EIN can't be modified through EFI change request Organization name can't be modified through EFI change request SSN or ITIN not matched in change request Provider Date of Birth not matched in change request Given NPI number does not exists in NPPES system for this type of provider An action on the NPI record requires the record to be active or in change request status.  Example: change request transaction and NPI was not found on the database	Correct the record and resubmit it in a new EFI file.
Pended by GateKeeper	12	GateKeeper routines have flagged the record for Enumerator review	Enumerator intervention required
Pended by L/S/T	13	L/S/T edits have flagged the record for Enumerator review	Enumerator intervention required
Duplicate record	14	Duplicate Record Found  Example: Exact duplicate of another record within the uploaded XML file or with another record that already exists in the NPPES system.	Correct the file and resubmit it in a new EFI file.
No changes found, record not updated	15	No changes found, record not updated  The record provided in the change request EFI file does not contain any updated information for the NPI record.	Provide the appropriate updates to the application and resubmit the EFI file.

## 4.5 Address Standardization Using Universal Coder

Address standardization is run against all domestic and military addresses using Universal Coder software. If a standardized address is returned, the standardized address is used and the NPI record is flagged as having passed address validation. If address standardization tool (Universal Coder) is unable to standardize the address, the record is marked as having failed and flagged for Enumerator intervention. This prevents records with valid addresses not recognized by the address standardization routine from being returned to the EFI Organization when there is nothing the organization can do to resolve the situation. Records are rejected when they have address errors such as invalid state abbreviations on domestic address or invalid ISO Country codes for foreign addresses, etc.

#### 4.5.1 Universal Coder

NPPES is required to validate all domestic and military addresses submitted during the initial application process and the update process after enumeration has occurred. A third party software, Universal Coder is used to meet this requirement.

Universal Coder is a software product developed to standardize address information based on an address database from the United States Postal Service (USPS). NPPES calls upon Universal Coder to perform the following activities:

- Correct misspellings in street and city names.
- Standardize address elements such as directionals (NE, West, etc.) and suffixes (Ave, Lane, etc.) to USPS specifications.
- Compare each address to the Universal Coder address database and verify that the address is correct and deliverable.
- Correct errors in the zip codes or zip+4 codes.

**Note**: NPPES excludes address line 2 from the standardization routine.