EDGAR® Form 13F
XML Technical Specification

Version 1.7 **January 2023**

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1. INTRODUCTION

1.1. Purpose

This document details the valid structure and content of the Form 13F Electronic Data Gathering, Analysis, and Retrieval (EDGAR) Extensible Markup Language (XML) submission types. The following table lists the submission types for Form 13F.

Table 1-1: Form 13F Submission Types

SUBMISSION TYPE	DESCRIPTION
13F-HR	Initial Quarterly Form 13F Holdings Report filed by institutional managers
13F-HR/A	Amendment to a Quarterly Form 13F Holdings Report filed by institutional managers
13F-NT	Initial Quarterly Form 13F Notice Report filed by institutional managers
13F-NT/A	Amendment to a Quarterly Form 13F Notice Report filed by institutional managers
13F-CTR	Initial Request for Confidential Treatment of Certain Form 13F Information Filed by an Institutional Investment Manager
13F-CTR/A	Amendment to a Request for Confidential Treatment of Certain Form 13F Information Filed by an Institutional Investmenr Manager

This specification provides the basis for creating the aforementioned submission types for Form 13F XML submissions. Filers must use this technical specification to generate a Form 13F XML submission that can be successfully parsed by the EDGAR system.

The Form 13F submission file must conform to the EDGAR Form 13F Submission Taxonomy. This taxonomy is comprised of a collection of XML Schema Definition (.xsd) files that define the structures of EDGAR Form 13F submissions.

The Form 13F XML submissions can be transmitted to the SEC via the EDGAR FilerWeb (https://www.edgarfiling.sec.gov/) or the "Transmit XML Submission" option from the EDGAR OnlineForms/XML Website (https://www.onlineforms.edgarfiling.sec.gov).

In order to use the EDGAR FilerWeb or OnlineForms/XML Website, you must have a Central Index Key (CIK) and EDGAR access codes (password, CIK confirmation code (CCC)). If you currently have a CIK and access codes, you can proceed to the EDGAR FilerWeb or OnlineForms/XML Website to submit your submission. If you do not have access codes, you will need to obtain access codes through the EDGAR Filer Management website, https://www.filermanagement.edgarfiling.sec.gov. For further information regarding how to obtain access codes, refer to the "Becoming an EDGAR Filer" section of the EDGAR Filer Manual, Volume I (General Information).

For further information regarding the EDGAR FilerWeb or OnlineForms/XML Website, specifically in regards to the transmission of filer-constructed submissions, refer to the Filer-Constructed XML Submissions section of the EDGAR Filer Manual, Volume II (EDGAR Filing).

Note to filers using Online Application to file Form 13F: For guidance on how to prepare the Information table XML document, please refer to "Data Specification for Information

Table" in Section 3.4 of this document. The Information Table must conform to "eis_13FDocument.xsd" schema file included in this Technical Specification package. A sample Information Table XML document titled "SampleInfoTable.xml" is also provided in this package.

1.2. Summary of Changes

On January 03, 2023, EDGAR Release 22.4.1 introduced the following changes:

- o Table 3.4 has been updated to include new "crdNumber" and "secFileNumber" elements to the 13F Submission Schemas.

- o Table 3.4 has been updated to increase size of the element "tableValueTotal" to 16 digits.

- o The eis_13F_Filer.xsd schema file has been updated to add new elements "crdNumber" and "secFileNumber" to the Cover and Summary page sections.

- o Table 3.4 and section 5.2 have been updated to add optional "FIGI" to the Information table.

- o Table 3.4 has been updated to increase size of the element "value" to 16 digits.

- o The eis_13FDocument.xsd schema file has been updated to add new element "FIGI".

- o The eis_13FDocument.xsd schema file has been updated to update size of the element "value" to 16 digits.

- o The Appendix B section has been updated to add "crdNumber", "secFileNumber" ,"denovoRequest" and "FIGI" to the XML Element Name table.

- o The Appendix B section has been updated to change "value" from thousand to the nearest dollar.

- o The eis_13F_Filer.xsd and table 3.4 have been updated to add "denovoRequest" for Submission form type 13F-CTR/A.

2. EDGAR SCHEMA FILES

Table 2-1: Form 13F Schema Files describes the schema files that the EDGAR system uses to validate Form 13F submissions. These schemas are considered part of this specification and are distributed with this document.

Table 2-1: Form 13F Schema Files

XML Schema File	Scope of File
eis_Common.xsd	Defines the common elements for all EDGAR submissions
eis_13F_Filer.xsd	Defines the elements for a Form 13F submission
eis_13FDocument.xsd	Defines the elements for the Information table document required by 13F-HR
eis_stateCodes.xsd	All State Codes

The schema files define the valid data elements for a Form 13F submission, the hierarchy and sequencing of these elements, data types, valid values, maximum lengths, and number of occurrences, etc.

It is recommended that you download these files and use them for your own validation prior to filing a submission. This will greatly reduce the likelihood of receiving an EDGAR Suspend error. These schema files contain several annotations that describe the nature of the content of some of the elements.

EDGAR performs several validation checks that are not related to the schema files, so it is possible for a submission to meet all the schema constraints and still be SUSPENDED or BLOCKED. For instance, EDGAR verifies that each CIK/CCC pair is valid.

2.1. Schema Table Column Definitions

We assume the filer is familiar with the basics of the XML language, Namespaces, and the XML Schema Definition language. If not, you can find numerous references on the World Wide Web. One recommended website that provides several useful tutorials and examples is *http://www.w3schools.com/*.

The table below highlights the schema language features used most heavily in the EDGAR Form 13F submission schema files. These are:

Table 2-2: Schema Language

Indicator	Purpose
<sequence>	Specifies that child elements must appear in a specific order. This indicator is used with each element hierarchy. Elements must always appear in the order shown in Section 3.4.
<choice>	Specifies that only one of the child elements can be present within the containing element.
<minOccurs>	Specifies the minimum number of times that an element can occur.
<maxOccurs>	Specifies the maximum number of times that an element can occur.

The default value for the <minOccurs> and <maxOccurs> indicator is 1. An optional field will have a <minOccurs> value of zero.

This excerpt is from the eis_13F_Filer.xsd schema file and includes some of these indicators:

```
<xs:complexType name="CONTACT_TYPE">
  <xs:sequence>
        <xs:element name="contactName" type="ns1:NAME_TYPE"/>
        <xs:element name="contactPhoneNumber" type="PHONE_TYPE"/>
        <xs:element name="contactEmailAddress" type="ns1:INTERNET_ADDRESS_TYPE"/>
  </xs:sequence>
</xs:complexType>
```

This is a sample of XML that conforms to the schema definition above:

```
<edgarSubmission>
    …
    <filerinfo>
        …
        <contact>
            <contactName>Contact Name</contactName>
            <contactPhoneNumber>000-000-0000</contactPhoneNumber>
            <contactEmailAddress>name@xyzname.com</contactEmailAddress>
        </contact>
        …
    </filerinfo>
    …
</edgarSubmission>
```

3. XML SCHEMAS

This section summarizes the restrictions and constraints imposed on the content of the four Form 13F submission types. These rules are enforced by the schema files and by EDGAR submission processing applications.

The schema files cannot enforce all the rules concerning data content, so it is possible for a submission to satisfy all the schema constraints and still be SUSPENDED or BLOCKED by EDGAR.

3.1. Schema Table Column Definitions

The following table defines the columns in the two schema summation tables provided in Sections 3.4:

Table 3-1: Column Definitions for the Tables in Section 3-4

Column Name	Description
Level	Depth of element in the XML node hierarchy.
Order	Order in which elements must appear.
Data Type	See Table in Section 3.2 for a detailed description.
Element Name	Name of the XML element. This is case-sensitive.
Max Length	Maximum length for elements. EDGAR database stores up to this number of characters. "Unlimited" means no maximum length constraint for the element value.
Data Value Constraint	The paragraph that describes the data value constraint for the element. The values specified are case sensitive.
Max Occur	Maximum times a set of elements may be repeated. The maximum occurrence is 1, if not specified.
Applicability of Element	Indicates applicability of the element. m = Mandatory o = Optional NA = Does not apply. EDGAR uses this element for server-side processing. Do not provide a value for this element.

3.2. Data Type Constraints

Each entry in the "Data Type" column of these tables will be one of these values:

Data Type	Constraints
Boolean	Indicate a "true" value with either a "1" or the word "true." Indicate a "false" value with either a "0" or the word "false." A Boolean element may not have a null or blank value. This is a schema violation and will cause a SUSPENSE error.
date	Must be of the format MM-DD-YYYY. A date element may not have a null or blank value. This is a schema violation and will cause a SUSPENSE error. Do not include a date element at all if your goal is to not provide an optional date.
integer	Only valid characters are 0-9. Cannot contain commas, a minus sign, a dollar sign, or parentheses. An integer element may not have a null or blank value. This is a schema violation and will cause a SUSPENSE error.
string	Should be no longer than the length shown in the tables in Section 3.4. EDGAR stores values in the <signatureName>, and <contactEmailAddress> elements exactly as provided. All other values are stored in the database as uppercase. You must use special escape sequences to represent these four characters: For the < character use the escape sequence "<" or "<". For the > character use the escape sequence ">" or ">". For the & character use the escape sequence "&" or "&". For the "character use the escape sequence """ or """.
NV	These fields cannot have a value. They are parent element nodes that contain other XML elements. These elements need to be present for proper validation.
attr	Attribute property for an XML element.

3.3. Applicability of Schema Elements

Each entry in the submission/document type column in Section 3.4 will have one of these values:

Value	Description
m	Mandatory
m#	Conditional Mandatory. The element is mandatory if its parent element is included. The element cannot be included if its parent is not included.
m#1	Conditional Mandatory. The element is mandatory if specific values are provided for other elements.
m#2	This element is required for correct processing of the submission type.
o	Optional
o#	Optional in the Schema. The value will be populated by EDGAR. Any value provided will be overwritten and a WARNING generated.
NA	Does not apply to submission type. EDGAR uses this field for server-side processing. Do not provide a value for this element.
blank	Does not apply to submission type.

Mapping of 13F Submission Schemas to Submission Types

Mapping of 13F Submission Schema to Submission Type

Level	Order	Data Type	Element/Attribute Name	Max Length	Choice List	Max Occur	13F-HR	13F-HR/A	13F-NT	13F-NT/A	13F-CTR	13F-CTR/A
1	1	NV	edgarSubmission			1	m	m	m	m	m	m
2	1	String	schemaVersion	5		1	o	o	o	o	o	o
2	2	NV	headerData			1	m	m	m	m	m	m
3	1	String	submissionType	10	SUBMISSION_TYPE	1	m	m	m	m	m	m
3	2	NV	filerInfo			1	m	m	m	m	m	m
4	1	String	liveTestFlag		LIVE_TEST_TYPE	1	m	m	m	m	m	m
4	2	String	denovoRequest		"Y" or "N"	1						o
4	3	NV	flags			1	o	o	o	o	o	o
5	1	Boolean	confirmingCopyFlag		"true" or "false"	1	o	o	o	o	o	o
5	2	Boolean	returnCopyFlag		"true" or "false"	1	o	o	o	o		
5	3	Boolean	overrideInternetFlag		"true" or "false"	1	o	o	o	o	o	o
4	4	NV	filer			1	m	m	m	m	m	m
5	1	NV	credentials			1	m	m	m	m	m	m
6	1	String	cik	10		1	m	m	m	m	m	m
6	2	String	ccc	8		1	m	m	m	m	m	m
5	2	String	fileNumber	17		1	m#1	m#1	m#1	m#1	m#1	m#1
4	5	NV	contact			1	o	o	o	o	o	o
5	1	String	contactName	30		1	m#	m#	m#	m#	m#	m#
5	2	String	contactPhoneNumber	20		1	m#	m#	m#	m#	m#	m#
5	3	String	contactEmailAddress	80		1	m#	m#	m#	m#	m#	m#
4	6	NV	notifications			1	o	o	o	o	o	o
5	1	String	notificationEmailAddress	80		3	m#	m#	m#	m#	m#	m#
4	7	Date	periodOfReport			1	m	m	m	m	m	m
2	3	NV	formData			1	m	m	m	m	m	m
3	1	NV	coverPage			1	m	m	m	m	m	m
4	1	Date	reportCalendarOrQuarter			1	m	m	m	m	m	m
4	2	Boolean	isAmendment		"true" or "false"	1	o	o	o	o	o	o
4	3	Integer	amendmentNo	2		1	m#1	m#1	m#1	m#1	m#1	m#1
4	4	NV	amendmentInfo			1	m#1	m#1	m#1	m#1	m#1	m#1
5	1	String	amendmentType		AMENDMENT_TYPE	1	m#	m#	m#	m#	m#	m#
5	2	Boolean	confDeniedExpired		"true" or "false"	1		m#1				m#1
5	3	Date	dateDeniedExpired			1		m#1				m#1

Level	Order	Data Type	Element/Attribute Name	Max Length	Choice List	Max Occur	13F-HR	13F-HR/A	13F-NT	13F-NT/A	13F-CTR	13F-CTR/A
5	4	Date	dateReported			1		m#1				m#1
5	5	String	reasonForNonConfidentiality		REASON_CONFIDENTIALITY	1		m#1				m#1
4	5	NV	filingManager			1	m	m	m	m	m	m
5	1	String	name	150		1	m	m	m	m	m	m
5	2	NV	address			1	m	m	m	m	m	m
6	1	String	street1	40		1	m	m	m	m	m	m
6	2	String	street2	40		1	o	o	o	o	o	o
6	3	String	city	30		1	m	m	m	m	m	m
6	4	String	stateOrCountry		STATE_COUNTRY_CODE	1	m	m	m	m	m	m
6	5	String	zipCode	10		1	m	m	m	m	m	m
4	6	String	reportType		REPORT_TYPE	1	m	m	m	m	m	m
4	7	String	form13FFileNumber	17		1	o	o	o	o	o	o
4	8	String	crdNumber	9		1	o	o	o	o	o	o
4	9	String	secFileNumber	17		1	o	o	o	o	o	o
4	10	NV	otherManagersInfo			1	m#1	m#1	m#1	m#1	m#1	m#1
5	1	NV	otherManager			100	m#1	m#1	m#1	m#1	m#1	m#1
6	1	String	cik	10		1	o	o	o	o	o	o
6	2	String	form13FFileNumber	17		1	o	o	o	o	o	o
6	3	String	crdNumber	9		1	o	o	o	o	o	o
6	4	String	secFileNumber	17		1	o	o	o	o	o	o
6	5	String	name	150		1	m#	m#	m#	m#	m#	m#
4	11	String	provideInfoForInstruction5	1	"Y" or "N"	1	m	m	m	m	m	m
4	12	String	additionalInformation	4000		1	m#1	m#1	m#1	m#1	m#1	m#1
3	2	NV	signatureBlock			1	m	m	m	m	m	m
4	1	String	name	150		1	m	m	m	m	m	m
4	2	String	title	60		1	m	m	m	m	m	m
4	3	String	phone	20		1	m	m	m	m	m	m
4	4	String	signature	150		1	m	m	m	m	m	m
4	5	String	city	30		1	m	m	m	m	m	m
4	6	String	stateOrCountry		STATE_COUNTRY_CODE	1	m	m	m	m	m	m
4	7	Date	signatureDate			1	m	m	m	m	m	m
3	3	NV	summaryPage			1	m	m			m	m
4	1	Integer	otherIncludedManagersCount	3		1	m	m			m	m
4	2	Integer	tableEntryTotal	6		1	m	m			m	m
4	3	Integer	tableValueTotal	16		1	m	m			m	m
4	4	Boolean	isConfidentialOmitted		"true" or "false"	1	m#1	m#1				

Level	Order	Data Type	Element/Attribute Name	Max Length	Choice List	Max Occur	13F-HR	13F-HR/A	13F-NT	13F-NT/A	13F-CTR	13F-CTR/A
4	5	NV	otherManagers2Info			1	m#1	m#1			m#1	m#1
5	1	NV	otherManager2			999	m#1	m#1			m#1	m#1
6	1	Integer	sequenceNumber	3		1	m#	m#			m#	m#
6	2	NV	otherManager			1	m#	m#			m#	m#
7	1	String	cik	10		1	o	o			o	o
7	2	String	form13FFileNumber	17		1	o	o			o	o
7	3	String	crdNumber	9		1	o	o			o	o
7	4	String	secFileNumber	17		1	o	o			o	o
7	5	String	name	150		1	m#	m#			m#	m#
2	4	NV	documents			1	m#1	m#1			m#1	m#1
3	1	NV	document			2	m#	m#			m#	m#
4	1	String	conformedName	32		1	m#	m#			m#	m#
4	2	String	conformedDocumentType		SUB_DOCUMENT_TYPE	1	m#	m#			m#	m#
4	3	String	description	255		1	o	o			o	o
4	4	String	contents			1	m#	m#			m#	m#

Data Specification for Information Table

Level	Order	Data Type	Element/Attribute Name	Max Length	Choice List	Max Occur	13FDocument
1	1	NV	informationTable			1	m
2	1	NV	infoTable			250000	m
3	1	String	nameOfIssuer	150		1	m
3	2	String	titleOfClass	150		1	m
3	3	String	cusip	9		1	m
3	4	String	figi	12		1	o
3	5	Integer	value	16		1	m
3	6	NV	shrsOrPrnAmt			1	m
4	1	Integer	sshPrnamt	16		1	m
4	2	String	sshPrnamtType		SHRSPRNTYPE	1	m
3	7	String	putCall		PUT_CALL	1	o
3	8	String	investmentDiscretion		INVESTMENT_DISCRETION	1	m
3	9	String	otherManager	100		1	o
3	10	NV	votingAuthority			1	m

Level	Order	Data Type	Element/Attribute Name	Max Length	Choice List	Max Occur	13FDocument
4	1	Integer	Sole	16		1	m
4	2	Integer	Shared	16		1	m
4	3	Integer	None	16		1	m

4. DATA VALUE CONSTRAINTS

4.1. LIVE_TEST_TYPE

These are the valid values for the <LIVE_TEST_TYPE> element in the submission file:

VALUE
LIVE
TEST

4.2. AMENDMENT_TYPE

These are the valid values for a <AMENDMENT_TYPE> element in the submission file:

VALUE
RESTATEMENT
NEW HOLDINGS

4.3. REASON_CONFIDENTIALITY

These are the valid values for the <REASON_CONFIDENTIALITY> element in the submission file:

VALUE
Denied
Confidential Treatment Expired

4.4. REPORT_TYPE

These are the valid values for the < REPORT_TYPE> element in the submission file:

VALUE
13F HOLDINGS REPORT
13F NOTICE
13F COMBINATION REPORT

4.5. SHRSPRNTYPE

These are the valid values for the <SHRSPRNTYPE> element in the submission file:

VALUE
SH
PRN

4.6. PUT_CALL

These are the valid values for the <PUT_CALL> element in the submission file:

VALUE
Put
Call

4.7. INVESTMENT_DISCRETION

These are the valid values for the < INVESTMENT_DISCRETION> element in the submission file:

VALUE
SOLE
DFND
OTR

4.8. SUB_DOCUMENT_TYPE

These are the valid values for the < SUB_DOCUMENT_TYPE> element in the submission file:

VALUE
INFORMATION TABLE
REQUEST LETTER

5. BASIC SUBMISSION CONSTRUCTION

5.1. General Formatting of XML Files

The following rules apply to the submission file of an XML-format Form 13F-HR, 13F-CTR or Form 13F-NT submission:

1. The filename must end with an ".xml" extension.

2. The file cannot be compressed in any fashion.

3. We strongly recommend you format the submission as shown in the provided sample files. This makes the raw XML files easier to view in a text editor. The submission of ASCII XML files with no line breaks, while legal XML, is strongly discouraged. XML filings are required to be posted on public websites. While usually formatted via style sheets, the raw XML is frequently available for inspection and should be readable by a person. A single line XML file is not viewer-friendly and should be avoided.

4. The <?xml version="1.0"?> declaration line is optional; however, if it is included it must be the first line in the file. Any text entered before this line, even white space, will cause a SUSPENSE error. The version value must be "1.0." Any other value for version will cause a SUSPENSE error.

5. For an XML element with a data value, keep the begin tag, data value, and end tag on the same line of text. Otherwise, you could get a schema violation error. As an example, for a filer ID value which cannot be longer than 10 characters, this specification is correct:

   <cik>1212121212</cik>

6. The specification below will result in a parsing error because the extraneous white space and line feeds will be counted as part of the length of the data value. In other words, the CIK value will be regarded as longer than 10 characters.

   <cik>
   1212121212
   </cik>

5.2. Formatting of Supporting Document XML Files

The following rules apply to the supporting document XML-format:

1. The <?xml version="1.0"?> declaration line is optional; however, if it is included it must be the first line in the file. Any text entered before this line, even white space, will cause an error. The version value must be "1.0." Any other value for version will cause an error.

2. The beginning tag for the <informationTable> must match the following:

```
<informationTable xmlns="http://www.sec.gov/edgar/document/thirteenf/informationtable"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
```

3. The XML elements cannot have any namespaces.

   For eg: It has to be <cusip> and not <ns1:cusip>

4. XML element "form13FFileNumber" is always generated by EDGAR for submission types 13F-HR, 13F-HR/A, 13F-CTR, 13F-CTR/A, 13F-NT and 13F-NT/A.

5. XML element "<otherManager>" can have the following format:

   <otherManager>6</otherManager> or <otherManager>1,34,56,12</otherManager>

   Here is a sample of what the information table should look like:

```
<?xml version="1.0" encoding="UTF-8"?>
<informationTable xmlns="http://www.sec.gov/edgar/document/thirteenf/informationtable"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
        <infoTable>
                <nameOfIssuer>3-D SYS CORP DEL</nameOfIssuer>
                <titleOfClass>COM NEW</titleOfClass>
                <cusip>88554D205</cusip>
                <figi>89554D205142</figi>
                <value>279</value>
                <shrsOrPrnAmt>
                        <sshPrnamt>848</sshPrnamt>
                        <sshPrnamtType>SH</sshPrnamtType>
                </shrsOrPrnAmt>
                <putCall>Put</putCall>
                <investmentDiscretion>SOLE</investmentDiscretion>
                <otherManager>1,2</otherManager>
                <votingAuthority>
                        <Sole>8482365987415897</Sole>
                        <Shared>0</Shared>
                        <None>0</None>
                </votingAuthority>
        </infoTable>
</informationTable>
```

5.3. XML Submission File Rules

The following rules are specific to the submission file:

1. The order of any <notificationEmailAddress> element in the <notificationAddresses> element block does not matter. EDGAR will generate a WARNING for any duplicate values in the <notificationEmailAddress> element.

2. The submission file must conform to the eis_13F_Filer.xsd XML schema file. Any violation of this schema will result in the suspension of the submission.

5.3.1. Primary Document

EDGAR will construct the "document of record" from the XML submission that will be disseminated. The following provides information regarding the constructed primary document:

1. The <schemaVersion> element should not be included. If you do provide a value for this element, EDGAR will generate a WARNING and discard the value and replace it with the correct value.

2. The following elements will be removed if provided, due to their confidential nature:

   <contact>

   <notifications>

3. The value for the <ccc> element will be masked with XXXXXXXX.

5.3.2. Supporting Documents

Document Attachments for 13F Submission Types

The <documents> element block specifies supporting documents. The following rules apply to this <documents> element block:

1. The submission file may also contain additional supporting document for Form 13F-CTR, 13F-CTR/A, 13F-HR and Form 13F-HR/A.

2. Allowable file extensions are .xml.

3. The allowable document types are shown in the Table 5-1: Supporting Document Maximum Allowed.

4. The attached document must conform to the eis_13FDocument.xsd XML schema file. Any violation of this schema will result in the suspension of the submission. The Form Types 13F-CTR and 13F-CTR/A support the Request Letter in PDF format in addition to the Information Table in XML format file.

5. You may enclose no more than 1 document for submission form types 13F-HR and 13F-HR/A. The document count limits by type are provided in Table 5-1: Supporting Document Maximum Allowed. Form types 13F-CTR and 13F-CTR/A allow a maximum of 2 documents. Tables 5-1 and 5-1-1 provide the document count limits for each form type.

Table 5-1: Supporting Document Maximum Allowed

Document Type	Maximum Allowed
INFORMATION TABLE	1

Table 5-1-1: Supporting 13F-CTR Document Maximum Allowed

Document Type	Maximum Allowed
INFORMATION TABLE	1
REQUEST LETTER	1

6. The names of attached document files must follow the EDGAR file naming conventions:

   - File names cannot exceed 32 characters, including the file extension.
   - Valid characters are lowercase letters, digits 0-9, up to one underscore, up to one hyphen, and up to one period.
   - First character must be a letter.
   - Spaces are not allowed.
   - File name must have a file type extension of .xml.

7. The <description> is optional, but all other elements must be present and must have a value.

8. The <contents> element must contain a MIME encoded document. You can use any standard 64-character set based MIME encoding algorithm to create a MIME document.

9. The XML for an enclosed supporting document looks like this:

```
<document>
  <conformedName>infoTable.xml</conformedName>

  <conformedDocumentType>INFORMATION TABLE</conformedDocumentType>
  <description>Information Table</description>
  <contents>
    PT09PT09PT09PT09PT09PT09PT09PT09PT09PT09PSAgIGNvdmVyIGxldHRl
    ciAgIID09PT09PT09PT09PT09PT09PT09PT09PT09PT0NCg0KVGhpcyBp
    cyBhIHByaXZhdGUgY292ZXIgbGV0dGVyIHRoYXQgZG9lcyBub3QgY29udGFp
    biBhbnkgcmVkbGluZQ0KdGFncy4gVGhpcyBpcyBzdHJpY3RseSBhIHRlc3Qu
    DQoNCj09PT09PT09PT09PT09PT09PT09PT09PT09PT09PT09PT09PT09PT09
    PT09PT09PT09PT09PT09PT09PT09PT09PT09PT09PT09PT09DQo=
  </contents>
</document>
```

6. ERROR REPORTING

EDGAR will generate an error for each violation of an XML schema constraint, as well as for each violation of a Form 13F filing business rule. The schema files do not enforce all error checks, so it is possible to construct a submission that meets all the schema constraints yet is still SUSPENDED.

This table summarizes the errors that can result from violations of schema constraints and EDGAR business rules. This is not an all-inclusive list.

Table 6-1: Submission Errors and Severity

Error Condition	Severity
Elements not in sequence prescribed in Section 3.4	SUSPENDED
Inclusion of XML-stylesheet reference or any other Processing Instruction	SUSPENDED
Inclusion of an element not prescribed in the schema	SUSPENDED
String value exceeds maximum length constraint	SUSPENDED
Element constrained by a Choice List has an invalid value	SUSPENDED
Mandatory element has no value or an invalid value	SUSPENDED
Special character (&, <, >) not provided as escape sequence	SUSPENDED
Date, Boolean, or Decimal element does not have a value	SUSPENDED
Duplicate Notification Address	WARNING
"NA" or blank field has a value	WARNING
Invalid Issuer CIK	SUSPENDED
Improperly formatted email address	SUSPENDED
Exceeding a "Max Occur" limit from Section 3.4 (e.g., more than 100 Other Managers on the Cover Page)	SUSPENDED
Missing the required XML Instance document for the Information Table for 13F-HR submissions.	SUSPENDED
Invalid content in an enclosed XML Instance document for the information table.	SUSPENDED
Any XML schema violation not mentioned in previous table row	SUSPENDED
File Number provided for the element "form13FFileNumber" under the parent elements "otherManagersInfo" or "otherManagers2Info" does not belong to the "cik" provided for that manger.	SUSPENDED

You may sometimes get multiple error messages reporting the same error. The XML parser EDGAR used to process a Form 13F submission generates messages that are rather technical in nature and require an understanding of the XML schema language. Whenever possible, EDGAR generates a more "friendly" error message to give a precise description of the error.

7. EXAMPLE FORM 13F SUBMISSION FILES

Table 7-1: Sample Submission/Document Files provides a list of sample submission files as well as a sample Information Table document.

Table 7-1: Sample Submission/Document Files

Submission/Document Type	Sample File
13F-HR	Sample13F-HR.xml
13F-HR/A	Sample13F-HRA.xml
13F-NT	Sample13F-NT.xml
13F-NT/A	Sample13F-NTA.xml
13F-CTR	Sample13F-CTR.xml
13F-CTR/A	Sample13F-CTRA.xml
INFORMATION TABLE	SampleInfoTable.xml
REQUEST LETTER	13F-CTR.PDF

APPENDIX A.   STATE/COUNTRY CODES

These are the valid designators for the <stateOrCountry> element in the primary document.

Code	State/Country Name
AL	ALABAMA
AK	ALASKA
AZ	ARIZONA
AR	ARKANSAS
CA	CALIFORNIA
CO	COLORADO
CT	CONNECTICUT
DE	DELAWARE
DC	DISTRICT OF COLUMBIA
FL	FLORIDA
GA	GEORGIA
GU	GUAM
HI	HAWAII
ID	IDAHO
IL	ILLINOIS
IN	INDIANA
IA	IOWA
KS	KANSAS
KY	KENTUCKY
LA	LOUISIANA
ME	MAINE
MD	MARYLAND
MA	MASSACHUSETTS
MI	MICHIGAN
MN	MINNESOTA
MS	MISSISSIPPI
MO	MISSOURI
MT	MONTANA
NE	NEBRASKA
NV	NEVADA
NH	NEW HAMPSHIRE
NJ	NEW JERSEY
NM	NEW MEXICO
NY	NEW YORK
NC	NORTH CAROLINA
ND	NORTH DAKOTA
OH	OHIO
OK	OKLAHOMA
OR	OREGON
PA	PENNSYLVANIA

Code	State/Country Name
RI	RHODE ISLAND
SC	SOUTH CAROLINA
SD	SOUTH DAKOTA
TN	TENNESSEE
TX	TEXAS
UT	UTAH
VT	VERMONT
VA	VIRGINIA
WA	WASHINGTON
WV	WEST VIRGINIA
WI	WISCONSIN
WY	WYOMING
PR	PUERTO RICO
VI	VIRGIN ISLANDS, U.S.
A0	ALBERTA, CANADA
A1	BRITISH COLUMBIA, CANADA
Z4	CANADA (FEDERAL LEVEL)
A2	MANITOBA, CANADA
A3	NEW BRUNSWICK, CANADA
A4	NEWFOUNDLAND, CANADA
A5	NOVA SCOTIA, CANADA
A6	ONTARIO, CANADA
A7	PRINCE EDWARD ISLAND, CANADA
A8	QUEBEC, CANADA
A9	SASKATCHEWAN, CANADA
B0	YUKON, CANADA
B2	AFGHANISTAN
Y6	ALAND ISLANDS
B3	ALBANIA
B4	ALGERIA
B5	AMERICAN SAMOA
B6	ANDORRA
B7	ANGOLA
1A	ANGUILLA
B8	ANTARCTICA
B9	ANTIGUA AND BARBUDA
C1	ARGENTINA
1B	ARMENIA
1C	ARUBA
C3	AUSTRALIA
C4	AUSTRIA
1D	AZERBAIJAN
C5	BAHAMAS
C6	BAHRAIN

Code	State/Country Name
C7	BANGLADESH
C8	BARBADOS
1F	BELARUS
C9	BELGIUM
D1	BELIZE
G6	BENIN
D0	BERMUDA
D2	BHUTAN
D3	BOLIVIA
1E	BOSNIA AND HERZEGOVINA
B1	BOTSWANA
D4	BOUVET ISLAND
D5	BRAZIL
D6	BRITISH INDIAN OCEAN TERRITORY
D9	BRUNEI DARUSSALAM
E0	BULGARIA
X2	BURKINA FASO
E2	BURUNDI
E3	CAMBODIA
E4	CAMEROON
E8	CAPE VERDE
E9	CAYMAN ISLANDS
F0	CENTRAL AFRICAN REPUBLIC
F2	CHAD
F3	CHILE
F4	CHINA
F6	CHRISTMAS ISLAND
F7	COCOS (KEELING) ISLANDS
F8	COLOMBIA
F9	COMOROS
G0	CONGO
Y3	CONGO, THE DEMOCRATIC REPUBLIC OF THE
G1	COOK ISLANDS
G2	COSTA RICA
L7	COTE D'IVOIRE
1M	CROATIA
G3	CUBA
G4	CYPRUS
2N	CZECH REPUBLIC
G7	DENMARK
1G	DJIBOUTI
G9	DOMINICA
G8	DOMINICAN REPUBLIC
H1	ECUADOR

Code	State/Country Name
H2	EGYPT
H3	EL SALVADOR
H4	EQUATORIAL GUINEA
1J	ERITREA
1H	ESTONIA
H5	ETHIOPIA
H7	FALKLAND ISLANDS (MALVINAS)
H6	FAROE ISLANDS
H8	FIJI
H9	FINLAND
I0	FRANCE
I3	FRENCH GUIANA
I4	FRENCH POLYNESIA
2C	FRENCH SOUTHERN TERRITORIES
I5	GABON
I6	GAMBIA
2Q	GEORGIA (COUNTRY)
2M	GERMANY
J0	GHANA
J1	GIBRALTAR
J3	GREECE
J4	GREENLAND
J5	GRENADA
J6	GUADELOUPE
J8	GUATEMALA
Y7	GUERNSEY
J9	GUINEA
S0	GUINEA-BISSAU
K0	GUYANA
K1	HAITI
K4	HEARD ISLAND AND MCDONALD ISLANDS
X4	HOLY SEE (VATICAN CITY STATE)
K2	HONDURAS
K3	HONG KONG
K5	HUNGARY
K6	ICELAND
K7	INDIA
K8	INDONESIA
K9	IRAN, ISLAMIC REPUBLIC OF
L0	IRAQ
L2	IRELAND
Y8	ISLE OF MAN
L3	ISRAEL
L6	ITALY

Code	State/Country Name
L8	JAMAICA
M0	JAPAN
Y9	JERSEY
M2	JORDAN
1P	KAZAKSTAN
M3	KENYA
J2	KIRIBATI
M4	KOREA, DEMOCRATIC PEOPLE'S REPUBLIC OF
M5	KOREA, REPUBLIC OF
M6	KUWAIT
1N	KYRGYZSTAN
M7	LAO PEOPLE'S DEMOCRATIC REPUBLIC
1R	LATVIA
M8	LEBANON
M9	LESOTHO
N0	LIBERIA
N1	LIBYAN ARAB JAMAHIRIYA
N2	LIECHTENSTEIN
1Q	LITHUANIA
N4	LUXEMBOURG
N5	MACAU
1U	MACEDONIA, THE FORMER YUGOSLAV REPUBLIC OF
N6	MADAGASCAR
N7	MALAWI
N8	MALAYSIA
N9	MALDIVES
O0	MALI
O1	MALTA
1T	MARSHALL ISLANDS
O2	MARTINIQUE
O3	MAURITANIA
O4	MAURITIUS
2P	MAYOTTE
O5	MEXICO
1K	MICRONESIA, FEDERATED STATES OF
1S	MOLDOVA, REPUBLIC OF
O9	MONACO
P0	MONGOLIA
Z5	MONTENEGRO
P1	MONTSERRAT
P2	MOROCCO
P3	MOZAMBIQUE
E1	MYANMAR
T6	NAMIBIA

Code	State/Country Name
P5	NAURU
P6	NEPAL
P7	NETHERLANDS
P8	NETHERLANDS ANTILLES
1W	NEW CALEDONIA
Q2	NEW ZEALAND
Q3	NICARAGUA
Q4	NIGER
Q5	NIGERIA
Q6	NIUE
Q7	NORFOLK ISLAND
1V	NORTHERN MARIANA ISLANDS
Q8	NORWAY
P4	OMAN
R0	PAKISTAN
1Y	PALAU
1X	PALESTINIAN TERRITORY, OCCUPIED
R1	PANAMA
R2	PAPUA NEW GUINEA
R4	PARAGUAY
R5	PERU
R6	PHILIPPINES
R8	PITCAIRN
R9	POLAND
S1	PORTUGAL
S3	QATAR
S4	REUNION
S5	ROMANIA
1Z	RUSSIAN FEDERATION
S6	RWANDA
Z0	SAINT BARTHELEMY
U8	SAINT HELENA
U7	SAINT KITTS AND NEVIS
U9	SAINT LUCIA
Z1	SAINT MARTIN
V0	SAINT PIERRE AND MIQUELON
V1	SAINT VINCENT AND THE GRENADINES
Y0	SAMOA
S8	SAN MARINO
S9	SAO TOME AND PRINCIPE
T0	SAUDI ARABIA
T1	SENEGAL
Z2	SERBIA
T2	SEYCHELLES

Code	State/Country Name
T8	SIERRA LEONE
U0	SINGAPORE
2B	SLOVAKIA
2A	SLOVENIA
D7	SOLOMON ISLANDS
U1	SOMALIA
T3	SOUTH AFRICA
1L	SOUTH GEORGIA AND THE SOUTH SANDWICH ISLANDS
U3	SPAIN
F1	SRI LANKA
V2	SUDAN
V3	SURINAME
L9	SVALBARD AND JAN MAYEN
V6	SWAZILAND
V7	SWEDEN
V8	SWITZERLAND
V9	SYRIAN ARAB REPUBLIC
F5	TAIWAN
2D	TAJIKISTAN
W0	TANZANIA, UNITED REPUBLIC OF
W1	THAILAND
Z3	TIMOR-LESTE
W2	TOGO
W3	TOKELAU
W4	TONGA
W5	TRINIDAD AND TOBAGO
W6	TUNISIA
W8	TURKEY
2E	TURKMENISTAN
W7	TURKS AND CAICOS ISLANDS
2G	TUVALU
W9	UGANDA
2H	UKRAINE
C0	UNITED ARAB EMIRATES
X0	UNITED KINGDOM
2J	UNITED STATES MINOR OUTLYING ISLANDS
X3	URUGUAY
2K	UZBEKISTAN
2L	VANUATU
X5	VENEZUELA
Q1	VIET NAM
D8	VIRGIN ISLANDS, BRITISH
X8	WALLIS AND FUTUNA
U5	WESTERN SAHARA

Code	State/Country Name
T7	YEMEN
Y4	ZAMBIA
Y5	ZIMBABWE

APPENDIX B.   MAPPING OF FORM 13F XML ELEMENTS TO PRINTED FORM

This table maps the XML elements that have a displayable value to their corresponding fields on a printed Form 13F.

XML Element Name	Printed Form 13F Field
schemaVersion	N/A
headerData	N/A
submissionType	N/A
filerInfo	N/A
liveTestFlag	Is this a LIVE or TEST Filing?
denovoRequest	Is this a de novo request? (Please select one. Refer to Confidential Treatment Instruction 2.g.)
flags	Would you like a return copy?
confirmingCopyFlag	Is this an electronic copy of an official filing submitted in paper format?
returnCopyFlag	Would you like a return copy?
overrrideInternetFlag	Notify via Filing website only?
filer	N/A
credentials	N/A
cik	Filer CIK
ccc	Filer CCC
filerNumber	File Number
contact	N/A
contactName	Name
contactPhoneNumber	Phone
contactEmailAddress	Email Address
notifications	
notificationEmailAddress	Notification Email Addresses
periodofReport	Period
formData	
coverPage	
reportCalendarOrQuarter	Report for the Calendar Year or Quarter Ended:
isAmendment	Check here if Amendment:
amendmentNo	Amendment Number:
amendmentInfo	
amendmentType	This Amendment (Check only one.):
confDeniedExpired	N/A
dateDeniedExpired	PURSUANT TO A REQUEST FOR CONFIDENTIAL TREATMENT AND FOR WHICH CONFIDENTIAL TREATMENT EXPIRED ON
dateReported	THIS FILING LISTS SECURITIES HOLDINGS REPORTED ON THE FORM 13F FILED ON
reasonForNonConfidentiality	THIS FILING LISTS SECURITIES HOLDINGS REPORTED ON THE FORM 13F FILED ON
filingManager	
name	N/A
address	Address:

XML Element Name	Printed Form 13F Field
reportType	Report Type
form13FFileNumber	Form 13F File Number:
crdNumber	CRD Number (if applicable):
secFileNumber	SEC File Number (if applicable):
otherManagersInfo	N/A
otherManager	N/A
cik	N/A
Form13FFileNumber	Form 13F File Number
crdNumber	CRD No. (if applicable)
secFileNumber	SEC File No. (if applicable)
name	Name
provideInfoForInstruction5	Do you wish to provide information pursuant to Special Instruction 5?
additionalInformation	Additional Information
signatureBlock	N/A
name	Name:
title	Title:
phone	Phone:
signature	Signature, Place, and Date of Signing:
city	N/A
stateOrCountry	N/A
signatureDate	N/A
summaryPage	N/A
otherIncludedManagersCount	Number of Other Included Managers:
tableEntryTotal	Form 13F Information table Entry Total:
tableValueTotal	Form 13F Information table Value Total:
isConfidentialOmitted	N/A
otherManagers2Info	N/A
otherManager2	N/A
sequenceNumber	No.
otherManager	N/A
cik	N/A
form13FFileNumber	Form 13F File Number
crdNumber	CRD No. (if applicable)
secFileNumber	SEC File No. (if applicable)
name	Name
documents	N/A
document	N/A
conformedName	N/A
conformedDocumentType	N/A
description	N/A
contents	N/A

INFO TABLE	Form 13F INFORMATION TABLE
infoTable	
nameOfIssuer	Name of Issuer
titleOfClass	Title of Class
cusip	CUSIP
figi	FIGI
value	Value (to the nearest dollar)
shrsOrPrnAmt	
sshPrnamt	SHRS or PRN AMT
sshPrnamtType	SH / PRN
putCall	PUT / CALL
investmentDiscretion	Investment DISCRETION
otherManager	Other Manager
votingAuthority	Voting Authority
Sole	Sole
Shared	Shared
None	None

APPENDIX C.   ACRONYMS

Acronym	Description
ASCII	American Standard Code for Information Interchange
CCC	CIK Confirmation Code
CIK	Central Index Key
EDGAR	Electronic Data Gathering, Analysis, and Retrieval
ICT	Investment Company Type
PDF	Portable Document Format
SEC	Securities and Exchange Commission
XML	Extensible Markup Language