

**Department of Homeland Security  
Domestic Nuclear Detection Office**



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**National Information Exchange Model**

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**Chemical, Biological, Radiological and Nuclear (CBRN) Domain  
Master Document**

Document Number 100-NIEM-113510v3.01  
June 2016

## Change History

The following table indicates the changes that were made to this document since its last release.

<b>New Version</b>	<b>Modified By</b>	<b>Section</b>	<b>Page</b>	<b>Change Made</b>
2.1.43	W. R. Wright	All	All	Initial Release
3.1.01	DNDO Data Management Team	All	All	Updated for conformance with NIEM 3.1

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# 1 CBRN Domain Overview

## 1.1 Purpose

This document provides details of the CBRN Domain that supports the Global Nuclear Detection Architecture (GNDA) to detect and interdict chemical, radiological and nuclear (Rad/Nuc) threats throughout the United States.

## 1.2 CBRN Domain

The CBRN Domain is an NIEM-conformant schema intended to be the baseline definition of business objects required to support data interchange needs of the chemical, biological, radiological and nuclear detection and interdiction mission area. Its initial definition has been developed by analysis of existing data specifications specific to radiation detection devices and messaging.

The data types and properties defined in these specifications have been integrated and harmonized to create this domain, and converted for NIEM conformance. Subsequently, the data types and properties were harmonized with the NIEM International Trade and Maritime Domains.

Additionally, the CBRN Domain will be proposed as the basis for a new version of ANSI Standard N42.42 that will increase the flexibility and applicability of N42.42 while reducing complexity and ambiguity. The CBRN Domain will be harmonized with the new version of ANSI N42.42 once it has been completed.

The CBRN Domain is the primary source for data types and properties for the N.25 IEP (Information Exchange Package). Future versions of the domain will include additional data types and properties specific to business objects specific to chemical and biological detection and interdiction.

## 1.3 Versions

Modifications to the CBRN Domain schema will be made from time to time based on new and changed requirements. The versioning approach will follow the guidance provided in the NIEM High Level Version Architecture document. Once a version is released, it is frozen and will persist unchanged. Any changes will be placed in the next version of the schema. The schema version and its dependencies on other NIEM schema versions are identified in a header section in the schema XSD file. All versions of the documentation will be published and made available depending upon security restrictions. The Department of Homeland Security (DHS) Enterprise Data Management Office (EDMO) will maintain an accessible copy of the most current version of the documentation.

## 1.4 Domain Artifacts

The CBRN domain is a set of digital data files contained in a standard directory structure. The files comprise two types of artifacts:

- Business, reference and supporting documentation
- Reusable technical documentation, principally XML schemas

The following table lists the CBRN Domain artifacts.

**Table 1. CBRN Domain Artifacts**

Name	Description
cbrn.xsd	CBRN Schema – integrated and harmonized schema providing the superset of all elements required by messages/file formats for the CBRN domain.
cbrncl.xsd	CBRN Code Lists Schema – provides the code lists referenced by the CBRN schema and message schemas.
CBRN Master Model	XML-based model containing the master source definitions of the types and properties of the CBRN domain. (Trouw Architect kmv file)
CBRN Domain Brief	One page summary of the domain published on the NIEM website.

## 2 Reference Documentation

The following table lists the reference documents for the CBRN Domain schema.

**Table 2. Reference Documents**

Document Title	Document Description
<a href="#">Naming and Design Rules 3.0 (31 July 2014)</a>	This document specifies principles and enforceable rules for NIEM-conformant schema documents, instance XML documents, and data components.
<a href="#">NIEM Conformance 3.0 (15 August 2014)</a>	This document defines general conformance to NIEM. This document supersedes NIEM Conformance 1.0.
<a href="#">Object Management Group (OMG) NIEM-UML Profile 1.0 (1 June 2014)</a>	The OMG standard for UML class diagrams that represent NIEM business objects.
<a href="#">High Level Version Architecture 3.0 (27 April 2015)</a>	Describes NIEM major and minor release cycles and how NIEM governance bodies update the schema documents and data components that comprise NIEM. This document supersedes High-Level Version Architecture 1.0.
<a href="#">NIEM User's Guide Volume 1</a>	Provides a detailed description of the rationale for the creation of NIEM, an architectural overview, and technical concepts derived from NIEM Program Management Office (PMO) documentation.

## 3 CBRN Domain

### 3.1 Purpose

The purpose of the CBRN Domain is to provide a library of standard, re-useable NIEM-conformant xml components for use in constructing interoperable IEPs (Information Exchange Packages) in support of the world-wide CBRN Detection and Interdiction mission. This domain is used to:

- Provide the primary source of data elements and attributes for the N.25 IEP.
- Provide a source of standard components for other IEPs where there is a need for data components that have been defined in the CBRN domain.

It is anticipated that in the near future the CBRN Domain will be extended with additional data elements and attributes to support the chemical and biological detection and interdiction mission.

### 3.2 Background

The latest release of the CBRN Domain schema has been updated to conform with NIEM 3.1.

The initial release of the CBRN Domain schema occurred with NIEM v2.1. This release was based on the Build 41 of the domain master model. Thus the version number was v2.1.41. Subsequent to the release of NIEM 2.1, the domain was harmonized with the International Trade Domain, and then with the Maritime Domain.

### 3.3 Domain Governance

The CBRN Domain is governed by the CBRN Domain Community of Interest (COI). The COI is chartered by DHS with membership of organizations that are users of the CBRN Domain.

## 4 CBRN Object Types

This section provides a list of the object types defined for the CBRN domain and for the CBRN Code list. An **object type** is a description of a set of things that share the same properties, relationships, and semantics. For example in NIEM, “PersonType” and “VehicleType” represent persons and vehicles—kinds of things.

The object types in the CBRN Domain follow the naming conventions outlined in the NIEM Naming and Design Rules, Version 3.0

### 4.1 CBRN Domain Object Types

The following table contains the object types and their definitions for the NIEM CBRN domain

**Table 3. CBRN Domain Object Types**

Object Type	Definition
AcknowledgementDataType	A data type for information regarding an acknowledgement.
AcknowledgingAgencyType	A data type for an Organization that is responsible for generating an acknowledgement message.
AnalysisAlgorithmSettingType	A data type to describing the parameter names and values for setting an analysis algorithm.

Object Type	Definition
AnalysisAlgorithmVersionType	A data type for information regarding an analysis algorithm version.
AnalysisResultsType	A data type to provide information on the results of a radiation data analysis.
Angle180SimpleType	A data type for an angle measure where the units are decimal degrees and the values range from +180.0 to -180.0.
Angle180Type	A data type for an angle measure where the units are decimal degrees and the values range from +180.0 to -180.0.
Angle90SimpleType	A data type for an inclination measure where the units are decimal degrees and the values range from +90.0 to -90.0.
Angle90Type	A data type for an inclination measure where the units are decimal degrees and the values range from +90.0 to -90.0.
ArealDensityType	A data type for areal density whose value is nonnegative and measured in g/cm <sup>2</sup> units.
ArrayXYType	A data type that defines a two-dimensional array of numbers and (optionally) their uncertainty values.
AudioFileType	A data type to capture the Audio data file type
CaseRelationshipType	A data type for a relationship between two cases.
CaseSetType	A data type for a set of cases that are related in some manner.
CaseStatusType	A data type for status information regarding a case.
CBRNECaseType	A data type for an aggregation of information about activities and events associated with detection and interdiction of CBRNE threats.
ChannelDataType	A data type for spectrum channel data.
CharacteristicGroupType	A data type for a named group of Characteristic.
CharacteristicsType	A data type for Characteristics or groupings of Characteristics.
CharacteristicType	A data type for describing additional characteristics of something, such as a radiation instrument, detector, or item being inspected. This can be used to supplement those characteristics specifically defined in this standard.
CoefficientsType	A data type that provides a list of the values of the coefficients of an Equation. The first value is term 0, the second term 1, and so forth.
ContentHeaderType	A data type for information about the contents of a message.
ConveyanceAugmentationType	A data type for additional information about a conveyance.
ConveyanceConveyanceRelationshipType	A data type for a relationship between two conveyances; for example, a trailer towed by a truck, or a container on a trailer or railcar. A set of relationships in the same time period define a set of conveyances that are connected together, such as a truck towing three trailers.
ConveyanceOrgRelationshipType	A data type for a relationship between a conveyance and an organization.
ConveyanceRegistrationAugmentationType	A data type for additional information about a conveyance registration.
ConveyanceRegistrationType	A data type for an applied augmentation for type nc:ConveyanceRegistrationType.
ConveyanceRelatorType	A data type for an identifier that can be used to identify a conveyance.

Object Type	Definition
CountRateCPSType	A data type for a radiation count rate measure whose value is positive and expressed in counts per second (cps) units.
DataFileCaptureType	A data type defining the structure of how the data file is captured.
DataFileSequenceType	A data type defining a structure to capture the sequence of a file within a data set
DataFileSetType	A data type that defines a collection of data files that are part of a set
DataFileType	A data type that defines a data file and its properties.
DecimalListSimpleType	A data type for a white space-delimited list of decimal.
DerivedDataType	A data type for measurement data artificially created by an analysis algorithm.
DetectionEventDataTypes	A data type for the set of all data collected during an Event that involves the inspection of an Item(s) for the purpose of detecting the presence of illicit goods and materials. This includes data collected by the device(s) used to perform the detection as well as information input by operator(s) involved in the detection activities that the event involves. A detection event can occur in many venues, such as a CBP Port of Entry, a USCG boarding, a state operated weigh station on a US highway, and a general aviation inspection at an airport in Mexico or Canada.
DetectionEventUserEntryDataType	A data type that provides user/operator data entries relevant to the Detection Event, for identification of the measured item, its shielding, and operator comments.
DeviceIdentificationType	A data type to provide information regarding an encounter device.
DistanceType	A data type for a distance measure where the units are meters (m) and the values may not be negative.
DoseAnalysisResultsType	A data type to provide information on the results of analysis of radiation dose data.
DoseRateType	A data type for radiation dose rate data.
DoseRateuSvhType	A data type for radiation dose rate whose value is positive and expressed in microsieverts per hour (uSv/h) units.
DoubleType	A data type for a double precision real value.
EfficiencyCalibrationType	A data type for efficiency calibration.
EncounterDeviceOperatorCommentsType	A data type for encounter device operator comments for general purpose devices employed in an encounter.
EncounterRelationshipType	A data type that provides a means to define a relationship between two objects involved in an encounter.
EnergiesKeVType	A data type for an Energy measure whose values are positive and measured in keV.
EnergyCalibrationType	A data type for an energy calibration.
EnergyDeviationsKeVType	A data type for an Energy Deviation measure whose values can be positive or negative and measured in keV.
EnergyWindowsType	A data type for identifying a set of energy window boundaries for gross counting radiation detector calibration.
EquationType	A data type that describes a mathematical equation and its coefficients. The type of the equation is given by the equationKind attribute. The coefficients of the equation are



Object Type	Definition
	supplied by the EquationCoefficients element; the values of the covariance matrix may be supplied by the EquationCovarianceMatrix. It is recommended that the data from which the equation coefficients were derived be made available as an ArrayXY type so that the coefficients for a different model could be derived.
ExposureAnalysisResultsType	A data type to provide information on the results of analysis of radiation exposure data.
ExposureRateRhType	A data type for a radiation exposure rate whose value is positive and expressed in milliroentgen per hour (mR/h) units.
ExposureRateType	A data type for radiation exposure rate data.
FaultType	A data type for describing an error that occurred in an instrument, a specific detector, or during the analysis of data.
FWHMCalibrationType	A data type for a FWHM calibration.
FWHMKeVType	A data type for a FWHM measure whose values are positive and measured in keV.
FWHMUncertaintiesKeVType	A data type for FWHM uncertainty measure whose values are nonnegative and measured in keV.
GeographicPointType	A data type for geographical coordinates of a point on the surface of the earth. For latitudes, positive values correspond to Northern latitudes, and negative values to Southern; for longitudes, positive values are Eastern longitudes and negative are Western. The units of measure for elevation and positional accuracy elements is given by the units attribute.
GrossCountAnalysisResultsType	A data type to provide information on the results of analysis of radiation gross count data.
GrossCountsType	A data type providing gross count radiation data.
ImageFileType	A Data type to capture the Image file Type
InspectionDataType	A data type for information regarding an inspection of an item of interest.
LayerType	A data type for a shielding layer.
LocationDescriptionType	A data type that provides the description of a Location.
MapGuideLocationType	A data type for location information based on a Guide map published by a vendor.
MeasuredItemIdentificationType	A data type for identification data for a measured item.
MessageContentErrorType	A data type that provides information about the point in the xml payload content of a message where an error occurred in processing the message.
MessageErrorType	A data type that describes a message error.
MessageOriginOrDestinationType	A data type for identifying a message origin or destination.
MessageStatusType	A data type to provide success or error feedback on a message that has been received.
MilitaryUnitRolesType	A data type the describes the functional roles performed by a military organization.
MultimediaDataType	A data type to provide data about a multimedia file, and optionally inclusion of the file content within the instant xml document.

Object Type	Definition
NonBlankStringSimpleType	A data type for a string that is not empty and does not consist of only white space characters.
NonBlankStringSimpleType	A data type for a string that is not empty and does not consist of only white space characters.
NonBlankStringType	A data type that defines a string value that can not be blank
NonNegativeDoubleListSimpleType	A data type for a list of doubles with value of zero or greater.
NonNegativeDoubleListType	A data type for a list of doubles with value of zero or greater.
NonNegativeDoubleSimpleType	A data type for a double with value of zero or greater.
NonNegativeDoubleSimpleType	A data type for a double with value of zero or greater.
NonNegativeDoubleType	A data type for a double with value of zero or greater.
NuclideActivityType	A data type for Nuclide Activity, expressed in kiloBequerel (kBq) units.
NuclideActivityUncertaintyType	A data type for the uncertainty in the value of NuclideActivityValue, expressed in kiloBequerel (kBq) units.
NuclideAnalysisResultsType	A data type for information regarding the nuclides identified (if any) by the analysis algorithm.
NuclideIDConfidenceValueType	A data type that indicates the confidence ranging from 0.0 to 100.0 percent, in the identification status of a nuclide, where increasing values indicate more certainty that the nuclide is present. The interpretation of this value is dependent on the characteristics of the nuclide identification algorithm.
NuclideMDAType	A data type for minimum detectable activity (MDA) of a nuclide, expressed in kiloBequerel (kBq) units.
NuclideType	A data type for the analysis results for an identified nuclide.
OperatingScheduleType	A data type for a schedule providing the beginning and ending hours of operation by weekday, for a designated time period.
OrientationType	A data type for describing the spatial orientation of an object.
OriginType	A data type for the origin of a relative location coordinate system.
PercentSimpleType	A data type for a percent value with range 0.0 to 100.0.
PercentSimpleType	A data type for a percent value with range 0.0 to 100.0.
PercentType	A data type that defines the percent values
PhotonDataType	A data type for the photon properties of a radiographic device.
PointXYType	A data type that provides a pair of values for a data point, and optionally their uncertainties.
PositiveDoubleListSimpleType	A data type for a list of doubles restricted to positive values.
PositiveDoubleListSimpleType	A data type for a list of doubles restricted to positive values.
PositiveDoubleListType	A data type for a list of doubles restricted to positive values.
PositiveDoubleSimpleType	A data type for a double with values greater than zero.
PositiveDoubleSimpleType	A data type for a double with values greater than zero.

Object Type	Definition
PositiveDoubleType	A data type for a double with values greater than zero.
PositiveIntegerType	A data type for a positive integer.
PositiveLengthCMType	A data type for a length measure whose value is positive and expressed in centimeter (cm) units.
PositiveVolumeCCType	A data type for a volume measure whose value is positive and expressed in cubic centimeter (cc) units.
RadAlarmType	A data type for radiation alarm information.
RadDetectorInformationType	A data type for information regarding a rad detector.
RadDetectorStateType	A data type for the state(s) of a radiation detector used in collecting the measurement data.
RadInstrumentDataType	A data type for the output of a radiation detection instrument from a detection event.
RadInstrumentInformationType	A data type that provides information regarding a radiation detection instrument.
RadInstrumentQualityControlType	A data type for rad instrument quality control information.
RadInstrumentStateType	A data type for the state of a radiation instrument used in collecting the measurement data.
RadInstrumentVersionType	A data type for version information for the relevant components of a radiation instrument.
RadItemInformationType	A data type that provides information regarding an item from which radiation is being measured by the radiation instrument, and measurement data is reported in this xml document.
RadItemQuantityType	A data type for expressing a quantity measure of a item that is the source of the radiation measurement contained in this xml document.
RadItemStateType	A data type for the state of an item that is the subject of a radiation measurement.
RadMeasurementGroupType	A data type for identifying associated groups of RadMeasurements.
RadMeasurementType	A data type for a set of radiation measurements that were taken in the same time period.
ReachbackDataType	A data type for information regarding Reachback.
RelativeLocationType	A data type for describing the relative location of an object.
RemarksComplexObjectType	A data type providing a Remark via inheritance to applicable Types.
ReportType	A data type for a report provided on an unsolicited basis; ie, not in response to a request message (Pull), but by Push from the entity providing the report.
RequestAgencyType	A data type to identify the source of a request message.
RequestDataType	A data type to provide metadata about a request.
ResponseReportType	A data type for a report provided in response to a request message.
ScanIdentificationType	A data type that provides identification data about a scan.
ScheduleByWeekDayType	A data type for a schedule where the hours are not the same for all weekdays.
ScheduleByWeekType	A data type for a schedule where the hours are the same for all weekdays.

Object Type	Definition
SecondaryInspectionReferralType	A data type for information regarding a secondary inspection referral.
SecondaryInspectionResolutionType	A data type for information regarding the resolution of a secondary inspection of an item of interest.
ShieldingType	A data type for describing the shielding that has been applied to an item.
SiteLocationAugmentationType	A data type for additional information about a site location.
SourcePositionType	A data type for identifying the location of a nuclide source by actual georef coordinates or by relation to another object.
SpectrumPeakAnalysisResultsType	A data type for the results of a radiation data spectrum peak analysis.
SpectrumPeakEnergyKeVType	A data type for a spectrum peak energy measure whose value is positive and measured in keV.
SpectrumPeakType	A data type that provides spectrum peak analysis results information for a single peak.
SpectrumType	A data type that provides spectrum measurement data.
SpeedType	A data type for the speed measure where the units are meters per second (m/s).
StateVectorType	A data type that provides location, orientation, and speed state data for an object, such as a radiation detection instrument/detector or an item being measured by an instrument/detector.
StringListSimpleType	A data type for a list of strings.
StringListType	A data type that facilitates the storage of a list of string values
SystemEventType	A data type for a system event.
TokenListSimpleType	A data type for a list of tokens.
TotalDoseMetadataType	A data type for metadata about TotalDose data.
TotalDoseType	A data type for TotalDose data.
TotalDoseuSvType	A data type for a radiation total dose measure whose value is nonnegative and expressed in microsieverts (uSv) units.
TotalExposureMetadataType	A data type for metadata about TotalExposure data.
TotalExposuremRType	A data type for a radiation total exposure measure whose value is nonnegative and expressed in milliroentgen (mR) units.
TotalExposureType	A data type for TotalExposure data.
TraversalType	A data type for the end-to-end workflow of a conveyance through an encounter process. One or more detection events occur during a traversal.
VideoImageFileType	A data type to capture the video image file type
ZeroToOneDoubleSimpleType	A data type for a double with positive value between 0.0 and 1.0.
ZeroToOneDoubleType	A data type to flag a zero to one association

## 4.2 CBRN Object Types Properties

The following table contains the object types and their properties for the NIEM CBRN domain. A *property* is a named characteristic of an object type. For example, “PersonBirthDate” is a property of “PersonType.” Furthermore, the property is of a specific type itself. For example, “PersonBirthDate” is itself of type “DateType.”

**Table 4. CBRN Object Types Properties**

Type Name	Property Name	Property Definition
AcknowledgementDataType	AcknowledgingActivityName	A name of the activity that produced an acknowledgement. This property can be used to provide data for workflow coordination by the sending or receiving systems.
AcknowledgementDataType	TraversalOperatingMode	A data concept for a Traversal operating mode.
AcknowledgementDataType	AcknowledgementDateTime	A Date/time when an acknowledgement was generated.
AcknowledgementDataType	AcknowledgementID	A unique identifier of an acknowledgement.
AcknowledgementDataType	CredentialsAuthentication	A data concept for the state of user credentials authentication.
AcknowledgementDataType	AcknowledgingAgency	An organization that is responsible for generating an acknowledgement message.
AcknowledgementDataType	ScanIdentificationData	An inspected item's scan information
AcknowledgementDataType	AcknowledgementDataAugmentationPoint	An augmentation point for <code>cbrn:AcknowledgementDataType</code> .
AcknowledgingAgencyType	AcknowledgingAgencyCode	An organization that is responsible for generating an acknowledgement.
AcknowledgingAgencyType	AcknowledgingAgencyAugmentationPoint	An augmentation point for <code>cbrn:AcknowledgingAgencyType</code> .
AnalysisAlgorithmSettingType	AnalysisAlgorithmSettingName	A name of an algorithm setting parameter.
AnalysisAlgorithmSettingType	AnalysisAlgorithmSettingValueText	A value of a setting parameter identified by the <code>AnalysisAlgorithmSettingName</code> element.
AnalysisAlgorithmSettingType	AnalysisAlgorithmSettingUnitsText	A unit of measure for an algorithm setting value, identified by the <code>AnalysisAlgorithmSettingName</code> element, if needed.
AnalysisAlgorithmSettingType	AnalysisAlgorithmSettingAugmentationPoint	An augmentation point for <code>cbrn:AnalysisAlgorithmSettingType</code> .
AnalysisAlgorithmVersionType	AnalysisAlgorithmComponentName	A Name of an algorithm component.
AnalysisAlgorithmVersionType	AnalysisAlgorithmComponentVersionText	A textual description of the version of an analysis algorithm component.
AnalysisAlgorithmVersionType	AnalysisAlgorithmVersionAugmentationPoint	An augmentation point for <code>cbrn:AnalysisAlgorithmVersionType</code> .
AnalysisResultsType	AnalysisStartDateTime	A date and time at which an analysis was started.
AnalysisResultsType	AnalysisComputationDuration	A time (duration) for convergence of an analysis algorithm; i.e., time from start to finish to produce the analysis results.

Type Name	Property Name	Property Definition
AnalysisResultsType	AnalysisAlgorithmName	A unique name of the analysis algorithm.
AnalysisResultsType	AnalysisAlgorithmCreatorName	A name of the Creator or implementer of the analysis algorithm.
AnalysisResultsType	AnalysisAlgorithmDescriptionText	A description of the analysis algorithm.
AnalysisResultsType	AnalysisAlgorithmVersion	A description of the version of a particular analysis algorithm component.
AnalysisResultsType	AnalysisAlgorithmSetting	A list of name - value pairs describing analysis setting information.
AnalysisResultsType	AnalysisResultStatusCode	A description of the the success or failure status of a measurement analysis. If this element is omitted, the analysis is considered successful. The AnalysisResultDescription element shall be used to describe an analysis failure in detail.
AnalysisResultsType	AnalysisConfidenceValue	An indication of confidence, as a percent ranging from 0.0 to 100.0, in the overall accuracy of the analysis, where increasing values indicate higher confidence.
AnalysisResultsType	AnalysisResultDescriptionText	A description of the overall conclusion of the analysis regarding the source of concern.
AnalysisResultsType	RadAlarm	A set of data for a radiation alarm that was issued based on the measurement(s) collected on a measured item(s).
AnalysisResultsType	NuclideAnalysisResults	A result/A set of data providing the results of a radionuclide analysis.
AnalysisResultsType	SpectrumPeakAnalysisResults	A set of spectrum peak analyses; each peak found in the spectrum is described by a SpectrumPeak child element.
AnalysisResultsType	GrossCountAnalysisResults	A result/results of an analysis of the gross count data for a measured item(s).
AnalysisResultsType	DoseAnalysisResults	A set of data containing the result/results of an analysis of the radiation ambient dose equivalent data for a measured item(s).
AnalysisResultsType	ExposureAnalysisResults	A set of data providing the result/results of an analysis of the radiation exposure data for a measured item(s).
AnalysisResultsType	Fault	A collection of information describing an error that occurred in an instrument, a specific detector, or during the analysis of data.
AnalysisResultsType	DerivedData	A set of all data derived from raw measured data for use in analysis.
AnalysisResultsType	RadMeasurementGroup	A group of RadMeasurements.

Type Name	Property Name	Property Definition
AnalysisResultsType	RadMeasurement	A group of RadMeasurements.
AnalysisResultsType	AnalysisResultsAugmentationPoint	An augmentation point for cbrn:AnalysisResultsType.
Angle180Type	unitsText	A unit of measure for a value element. If used, the unit of measure shall be as stated in the documentation for the element.
Angle90Type	unitsText	A unit of measure for a value element. If used, the unit of measure shall be as stated in the documentation for the element.
ArealDensityType	unitsText	A unit of measure for a value element. If used, the unit of measure shall be as stated in the documentation for the element.
ArrayXYType	PointXY	A single two dimensional - i.e., (X,Y) - data point.
ArrayXYType	XDescriptionText	A description of the first dimension's data.
ArrayXYType	YDescriptionText	A description of the second dimension's data.
ArrayXYType	ArrayXYAugmentationPoint	An augmentation point for cbrn:ArrayXYType.
AudioFileType	AudioFileCodecName	A name of the codec used to create the audio file ex. mpga MPEG audio (recommended for portability) mp3 MPEG Layer 3 audio mp4a MP4 audio a52 Dolby Digital (A52 or AC3) vorb Vorbis spx Speex flac or fl32 FLAC
AudioFileType	AudioFileCodecNameVersionText	A version of a codec used to create an audio file.
AudioFileType	AudioFileCodecCreatorApplicationText	A name of a software application that is used to create an audio file.
AudioFileType	AudioFileCodecCreatorApplicationVersionText	A version of a software application that is used to create an audio file.
AudioFileType	AudioFileBitRate	A number indicating the number of bits that are data stored in every second of an audio file.
AudioFileType	AudioFileSampleRate	A number of samples per second taken from a continuous signal to make a discrete signal.
AudioFileType	AudioFileChannelsQuantity	A number of distinct channels or output devices that can be used to disperse the audio.



Type Name	Property Name	Property Definition
AudioFileType	AudioFileAugmentationPoint	An augmentation point for cbrn:AudioFileType.
CaseRelationshipType	RelatedCaseUUID	A unique identifier of a case that is related in some manner to a case of interest.
CaseRelationshipType	CaseRelationshipRoleKindCode	A kind of relationship role played between two cases.
CaseRelationshipType	CaseRelationshipDescriptionText	A description of the nature, reason, status, etc of the relationship.
CaseRelationshipType	CaseRelationshipAugmentationPoint	An augmentation point for cbrn:CaseRelationshipType.
CaseSetType	CaseOfInterestUUID	A unique identifier of a case of interest to which another case is related.
CaseSetType	RelatedCase	A case that is related to a case of interest.
CaseSetType	CaseSetQuantity	A number of cases contained in a CaseSet , or otherwise related to a Case.
CaseSetType	CaseSetAugmentationPoint	An augmentation point for cbrn:CaseSetType.
CaseStatusType	CaseStatusDateTime	A dateTime when a status was reported.
CaseStatusType	CaseStatusCode	A status of a case.
CaseStatusType	CaseStatusIssuerCode	An Organization reporting a case status.
CaseStatusType	CaseStatusAugmentationPoint	An augmentation point for cbrn:CaseStatusType.
CBRNECaseType	CaseRequestCode	A description of a kind of Case request.
CBRNECaseType	CaseUUID	A universally unique identifier for a case.
CBRNECaseType	CaseStartDateTime	A date and time when a case was initiated.
CBRNECaseType	CaseThreatLevelCode	A threat level represented by the activities or items represented by a case.
CBRNECaseType	CaseEventDateTime	A date and time of the first detection event associated with a case.
CBRNECaseType	CaseWindowStartDateTime	A DateTime for the time window start for a BOLO kind of case.
CBRNECaseType	CaseWindowEndDateTime	A DateTime for the time window end for a BOLO kind of case.

Type Name	Property Name	Property Definition
CBRNECaseType	CaseMetadata	Metadata about a case.
CBRNECaseType	CaseKindCode	A kind of case.
CBRNECaseType	CaseLocationDescriptionText	A description of the locale or location associated with a case when it was initiated. For a case that is a collection of cases, may describe a route or involved locations/locales.
CBRNECaseType	CasePriorityCode	A priority of a case.
CBRNECaseType	CaseStatus	A status of a case.
CBRNECaseType	CaseClosedIndicator	True if a case is closed; false otherwise.
CBRNECaseType	CaseSetQuantity	A number of cases contained in a CaseSet , or otherwise related to a Case.
CBRNECaseType	DataFileSetQuantity	DataFileSetQuantity
CBRNECaseType	DetectionEventUUID	A unique identifier of the Detection Event for which the user entered the data.
CBRNECaseType	CBRNECaseAugmentationPoint	An augmentation point for cbrn:CBRNECaseType.
ChannelDataType	compressionCode	An algorithm, if any, by which the channel data have been compressed. If this attribute is omitted, the data have not been compressed. The kinds of data compression are as follows: - None: the data are not compressed. The number of values in the ChannelData element is equal to the number of channels of data represented by the element. - CountedZeroes: the data have been compressed by the removal of repeated zero values. When a "0" value appears in the ChannelData contents, the next value is the number of consecutive zero-value channels beginning with the first zero-value in the sequence. For example, the following 18 channels of uncompressed data: 22 5 0 2 1 0 0 3 4 0 0 0 0 0 0 0 1 would be represented in compressed form by 22 5 0 1 2 1 0 2 3 4 0 8 1 The italicized values in the list show cases where one, two, and eight zeroes have been compressed.
CharacteristicGroupType	CharacteristicGroupName	A name of the CharacteristicGroup.
CharacteristicGroupType	Characteristic	A description of an additional characteristic of something, such as a radiation instrument, detector, or item being

Type Name	Property Name	Property Definition
		inspected.
CharacteristicGroupType	groupOutOfLimitsIndicator	True if theCharacteristicValue of one or more of the Characteristic in the group, or combinations of the group's Characteristic exceeds a control limit high or low value; false otherwise.
CharacteristicGroupType	CharacteristicGroupAugmentationPoint	An augmentation point for cbrn:CharacteristicGroupType.
CharacteristicsType	CharacteristicChoice	A data concept for an additional characteristic of something, such as a radiation instrument, detector, or item being inspected, or a group of such characteristics.
CharacteristicsType	CharacteristicsAugmentationPoint	An augmentation point for cbrn:CharacteristicsType.
CharacteristicType	CharacteristicName	A name of the Characteristic.
CharacteristicType	CharacteristicValueText	A value of a Characteristic.
CharacteristicType	CharacteristicValueUnitsText	A unit of measure of a CharacteristicValue.
CharacteristicType	CharacteristicValueDataClassCode	A data class of a CharacteristicValue.
CharacteristicType	valueDateTime	A DateTime stamp for when a characteristic value was sampled.
CharacteristicType	valueOutOfLimitsIndicator	True if the CharacteristicValue exceeds a control limit high or low value; false otherwise.
CharacteristicType	CharacteristicAugmentationPoint	An augmentation point for cbrn:CharacteristicType.
CoefficientsType	subEquationNumeric	An index of the subequation to which a set of coefficients apply.
ContentHeaderType	MessageID	An identifier associated with a message content. There is no required format for the ID value.
ContentHeaderType	MessageKindCode	A code for a kind of information content contained in a message.
ContentHeaderType	MessageVersionText	A version of the message content kind associated with a content header.
ContentHeaderType	MessageOrigin	A Facility, site, or organization id and/or name from which a message content originated.
ContentHeaderType	MessageDestination	An identifier and/or name of a facility, site, or organization(s) that is(are) the destination of a message.
ContentHeaderType	MessageCreationDateTime	A timestamp associated with the creation of a message content header.

Type Name	Property Name	Property Definition
ContentHeaderType	MessageDispatchDateTime	A timestamp associated with the dispatch of a message content and its header to a messaging service.
ContentHeaderType	MessagePriorityCode	A code for the message content priority associated with a content header.
ContentHeaderType	ContentHeaderAugmentationPoint	An augmentation point for cbrn:ContentHeaderType.
ConveyanceAugmentationType	ConveyanceKindCode	An identifier of a kind of a conveyance. For example: Ship, Airplane, Truck, etc.
ConveyanceAugmentationType	ConveyanceWeightDescriptionText	A description of conveyance weight, such as gross weight, axle weight, etc., this element is used to provide the description that is applicable to the value provided by the Conveyance weight measure.
ConveyanceConveyanceRelationshipType	ConveyanceRelationshipOriginID	A unique identifier of the conveyance that is the start/origin of the relationship. By convention, the start of the relationship is the conveyee and the end of the relationship is the conveyor; for example a trailer is conveyed by a tractor, or a container is conveyed by a vessel or a trailer.
ConveyanceConveyanceRelationshipType	ConveyanceRelationshipTargetID	A unique identifier of the conveyance that is the start/origin of the relationship. By convention, the start of the relationship is the conveyee and the end of the relationship is the conveyor; for example a trailer is conveyed by a tractor, or a container is conveyed by a vessel or a trailer.
ConveyanceConveyanceRelationshipType	ConveyanceRelationshipKindCode	A kind of conveyance relationship; for example, contained in/on, or connected to.
ConveyanceConveyanceRelationshipType	ConveyanceSequenceNumeric	A number identifying the position of the conveyee if there is more than one associated with the same conveyor during the same period of time. For example, for a truck consisting of a tractor with two trailers, the first trailer would have a sequence number of one.
ConveyanceConveyanceRelationshipType	ConveyanceConveyanceRelationshipAugmentationPoint	An augmentation point for cbrn:ConveyanceConveyanceRelationshipType.
ConveyanceOrgRelationshipType	ConveyanceIdentification	A unique identifier for a conveyance processed through a traversal.
ConveyanceOrgRelationshipType	ConveyanceOrgRelationshipKindCode	A description of the kind of relationship between a conveyance and organization. For example, an aircraft may have an owner, operator, leasee, etc.
ConveyanceOrgRelationshipType	ConveyanceOrgRelationshipAugmentationPoint	An augmentation point for cbrn:ConveyanceOrgRelationshipType.
ConveyanceRegistrationAugmentationType	CConveyancePrimaryColorode	A color that identifies a single, upper-most, front-most, or majority color of a conveyance.

Type Name	Property Name	Property Definition
ConveyanceRegistrationAugmentationType	ConveyanceSecondaryColorCode	A color that identifies a lower-most or rear-most color of a two-tone conveyance or a lesser color of a multi-colored conveyance.
ConveyanceRegistrationType	ConveyanceRegistrationAugmentationPoint	An augmentation point for cbrn:ConveyanceRegistrationType.
ConveyanceRelatorType	ConveyanceRelatorAugmentationPoint	An augmentation point for cbrn:ConveyanceRelatorType.
CountRateCPSType	unitsText	A unit of measure for a value element. If used, the unit of measure shall be as stated in the documentation for the element.
DataFileCaptureType	DataFileCaptureStartDateTime	A date/time when recording of the data in a digital data began (in ISO 8601 UTC format).
DataFileCaptureType	DataFileCaptureDuration	A total duration of time (in ISO 8601 format) covered by the data recorded in a digital data file.
DataFileCaptureType	DataFileCaptureByDevice	A device that is used to create a data file.
DataFileCaptureType	DataFileCaptureDeviceID	A unique identifier of the device that captured/recorded a data file. There is no required format for the ID value.
DataFileCaptureType	DataFileCreatedByDeviceDescriptionText	A brief description of the device that created the data file.
DataFileCaptureType	EncounterDeviceCategoryCodeText	A description of a kind of encounter device.
DataFileCaptureType	MIMEEncodingCode	A Encoding MIME type of a digital data file.
DataFileCaptureType	MIMEContentCode	A MIME content type of a digital data file.
DataFileCaptureType	DataFileCreatedByDeviceLocationText	A location of the device that created a data file.
DataFileCaptureType	DataFileCaptureAugmentationPoint	An augmentation point for cbrn:DataFileCaptureType.
DataFileSequenceType	DataFileSequenceID	A unique identifier of the sequence of a data subset in a file that contains sequences of recorded digital data.
DataFileSequenceType	DataFileSequenceDescriptionText	A Description of the contents of a subset of a digital data file.
DataFileSequenceType	DataFileSequenceAugmentationPoint	An augmentation point for cbrn:DataFileSequenceType.
DataFileSetType	DataFile	A digital data file.
DataFileSetType	DataFileSetName	A Name of a file set.

Type Name	Property Name	Property Definition
DataFileSetType	DataFileSetDescriptionText	A Description of a file set.
DataFileSetType	DataFileSetUUID	A Unique identifier of a file set. Also serves as the DataFileUUID of a file containing the identifiers of the members of the file set.
DataFileSetType	DataFileSetQuantity	A number of files in a file set.
DataFileSetType	DataFileSetMember	A digit file that is a member of a file set.
DataFileSetType	DataFileSetAugmentationPoint	An augmentation point for cbrn:DataFileSetType.
DataFileType	DataFileID	A unique XSD identifier that is being used to identify the unique data file from the DataFileSetType
DataFileType	DataFileUID	A unique identifier for the file
DataFileType	DataFileURIID	A URI identifier for the data file
DataFileType	DataFileName	A Name of the data file
DataFileType	DataFileMetadata	Metadata about datafile Security classification and marking attributes.
DataFileType	DataFileDescriptionText	A text description of the subject matter recorded in a digital data file.
DataFileType	DataFileCategoryID	An identifier of a kind of information in a data file
DataFileType	DataFileCategoryName	A name of a category of information in a data file
DataFileType	DataFileCategoryDescriptionText	A description of a kind of information in a data file
DataFileType	DataFileCreatedByText	A user, who created a data file.
DataFileType	DataFileCreatedDateTime	A time stamp, of identifying when a data file was created
DataFileType	DataFileLastModifiedDateTime	A time stamp identifying when a data file was last modified.
DataFileType	DataFileCreatedByApplicationText	A name of a software/firmware application that was used to create a data file.
DataFileType	DataFileCreatedByApplicationVersionText	A version of a software/firmware application that created the data file.
DataFileType	DataFileExtensionText	An extension that is used for a kind of data files.

Type Name	Property Name	Property Definition
DataFileType	DataFileSizeValue	A value indicating the size of a data file.
DataFileType	DataFileCharacterEncodingText	A type of encoding that was used to encode a data file.
DataFileType	DataFileCharacterEncodingBaseText	A base that was used to encode a data file.
DataFileType	DataFileEncryptedIndicator	True if a data file is encrypted; false otherwise. A boolean flag indicating if the data file is encrypted.
DataFileType	DataFileEncryptionText	A type of encryption that was used to encrypt a data file.
DataFileType	DataFileCompressedIndicator	True if a data file is compared; false otherwise. A boolean flag indicating if the data file is compressed.
DataFileType	DataFileCompressionText	A compression algorithm that was used to compress a data file.
DataFileType	DataFileCopyrightIndicator	True if a datafile is copyrighted; false otherwise.
DataFileType	DataFileSetID	An identifier of a set of data files to which a datafile belongs.
DataFileType	DataFileSubjectCodeText	A description of a kind of subject matter recorded in a digital data file. If the kind is Other, a description should be provided in BinaryDescriptionText.
DataFileType	DataFileLanguageCodeText	A language of the intellectual content of the resource.
DataFileType	DataFileCapturedByDevice	A data type that provides information about the recording of a digital data file.
DataFileType	DataFileGeneratedByActivityText	An activity that generated the data file.
DataFileType	DataFileLastModifiedByText	A user, who modified a data file.
DataFileType	VersionID	A unique Identifier of a version.
DataFileType	VersionEffectiveDateTime	A version effectivity dateTime.
DataFileType	DataFileSequenceID	A unique identifier of the sequence of a data subset in a file that contains sequences of recorded digital data.
DataFileType	DataFileAugmentationPoint	An augmentation point for cbrn:DataFileType.
DerivedDataType	MeasurementClassCode	An indicator A code indicating whether the data are a measurement of an item (Foreground), an environmental background (Background), a calibration source (Calibration), the intrinsic activity of the radiation

Type Name	Property Name	Property Definition
		measurement instrument (IntrinsicActivity), or not specified (NotSpecified).
DerivedDataType	StartDateTime	A time corresponding to the start of the collection of the data contained in a particular measurement.
DerivedDataType	RealTimeDuration	A total clock time (in ISO 8601 format) expended by an instrument in collecting a measurement; the duration shall be greater than zero.
DerivedDataType	Spectrum	A single spectrum measurement with references to other pertinent information about the measurement.
DerivedDataType	GrossCounts	A gross count from a radiation detector.
DerivedDataType	DoseRate	A measured ambient dose equivalent rate, provided as a value and/or a qualitative description.
DerivedDataType	TotalDoseNumeric	A value for the accumulated ambient dose equivalent since the last radiation detection instrument reset, in microsieverts (Sv).
DerivedDataType	ExposureRate	A radiation exposure rate, provided as the measured value, and/or a qualitative description of an exposure rate level.
DerivedDataType	TotalExposureNumeric	A set of data for the accumulated exposure since the last instrument reset, in milliroentgen (mR).
DerivedDataType	DerivedDataAugmentationPoint	An augmentation point for cbrn:DerivedDataType.
DetectionEventDataTypes	DetectionEventID	An identifier for a Detection Event applied by the site that performs the inspection activities of the Detection Event.
DetectionEventDataTypes	DetectionEventOnsetDateTime	A date and time of the start of a Detection Event (ISO 8601 format).
DetectionEventDataTypes	DetectionEventLocationText	A physical location where a detection event occurred.
DetectionEventDataTypes	DetectionEventSiteID	A unique identifier of the site at which a detection event occurred. Typically this identifier is specific to the organization operating the site.
DetectionEventDataTypes	DetectionEventInstrumentData	A data concept for the set of data output by an instrument for a detection event. This includes the reported measurement and analysis data, information about the instrument, and information about the item(s) which it is measuring/inspecting.
DetectionEventDataTypes	DetectionEventUserEntryData	A set of user-operator entered data relevant to a Detection Event.
DetectionEventDataTypes	DataFileChoice	A data concept for a digital data file.



Type Name	Property Name	Property Definition
DetectionEventDataTypes	DetectionEventDataAugmentationPoint	An augmentation point for cbrn:DetectionEventDataTypes.
DetectionEventUserEntryDataTypes	EncounterDeviceOperatorComments	A general comment or comments by the operator of the encounter device.
DetectionEventUserEntryDataTypes	DetectionEventUUID	A unique identifier of the Detection Event for which the user entered the data.
DetectionEventUserEntryDataTypes	EncounterDeviceOperatorText	An encounter device operator's identification information.
DetectionEventUserEntryDataTypes	MeasuredItemDescriptionText	A description providing information about a measured item.
DetectionEventUserEntryDataTypes	Shielding	A set of data that describes the shielding observed by an inspector(s) as relevant to the measured item.
DetectionEventUserEntryDataTypes	DetectionEventUserEntryDataAugmentationPoint	An augmentation point for cbrn:DetectionEventUserEntryDataTypes.
DeviceIdentificationTypes	EncounterDeviceCategoryLevelCode	A device manufacturer's name.
DeviceIdentificationTypes	EncounterDeviceCategoryCodeText	A category of device to capture radiation data in the process of an encounter.
DeviceIdentificationTypes	EncounterDeviceID	A unique identifier of a kind of encounter device; ie, system, device, or component.
DeviceIdentificationTypes	EncounterDeviceVersionText	An encounter device's version information.
DeviceIdentificationTypes	DeviceInfoDateTime	A DateTime of the device identifier data.
DeviceIdentificationTypes	ParentDeviceCategoryCodeText	A code for the category of a device that is the parent of the device identified by rn:RadEncounterDeviceID.
DeviceIdentificationTypes	ParentDeviceID	A unique identifier of the device that is the parent of the device identified by rn:RadEncounterDeviceID.
DeviceIdentificationTypes	DeviceIdentificationAugmentationPoint	An augmentation point for cbrn:DeviceIdentifierTypes.
DistanceTypes	unitsText	A unit of measure for a value element. If used, the unit of measure shall be as stated in the documentation for the element.
DoseAnalysisResultsTypes	AverageDoseRateValue	An average ambient dose equivalent rate reported in an analysis results, expressed in microsieverts per hour (Sv/h).
DoseAnalysisResultsTypes	AverageDoseRateUncertaintyValue	A combined 1-sigma uncertainty associated with an average ambient dose equivalent rate reported in an analysis results, expressed in microsieverts per hour (Sv/h).

Type Name	Property Name	Property Definition
DoseAnalysisResultsType	MaximumDoseRateValue	A value for the maximum ambient dose equivalent rate observed over all measurements input to AnalysisResults, in microsieverts per hour (Sv/h).
DoseAnalysisResultsType	MinimumDoseRateValue	A value for the minimum ambient dose equivalent rate observed over all measurements input to AnalysisResults, in microsieverts per hour (Sv/h).
DoseAnalysisResultsType	BackgroundDoseRateValue	A background ambient dose equivalent rate used in an analysis, in microsieverts per hour (Sv/h).
DoseAnalysisResultsType	BackgroundDoseRateUncertaintyValue	A 1-sigma absolute uncertainty in the value of BackgroundDoseRateValue, in microsieverts per hour (Sv/h).
DoseAnalysisResultsType	TotalDoseValue	A value for the accumulated ambient dose equivalent over all measurements input to AnalysisResults, in microsieverts (Sv).
DoseAnalysisResultsType	SourcePosition	An estimated location of a nuclide source by actual geographical coordinates or relative to a reference point.
DoseAnalysisResultsType	DoseAnalysisResultsAugmentationPoint	An augmentation point for cbrn:DoseAnalysisResultsType.
DoseRateType	DoseRateValue	A measured ambient radiation dose equivalent rate value, in microsieverts per hour (Sv/h).
DoseRateType	DoseRateLevelDescriptionText	A qualitative description of the radiation ambient dose equivalent rate level, such as low/medium/high or a numerical scale 0 to 9.
DoseRateType	RadRawDoseRate	A DoseRate measurement data element(s) used to produce derived data. There shall be no duplicate IDREF values in the list. This is required whenever the element is used within a DerivedData block, but is prohibited otherwise.
DoseRateType	RadDetectorInformation	A set of information regarding a radiation detector.
DoseRateType	DoseRateAugmentationPoint	An augmentation point for cbrn:DoseRateType.
DoseRateuSvhType	unitsText	A unit of measure for a value element. If used, the unit of measure shall be as stated in the documentation for the element.
EfficiencyCalibrationType	EnergyValueList	A list of energy values, in units of keV; the energies shall appear in the list in strictly increasing order. This element appears paired with an element that provides a corresponding list of other values, such as the EnergyDeviationValues, FWHMValues, or EfficiencyValues

Type Name	Property Name	Property Definition
		elements. The number and order of corresponding values in the pair of lists must match.
EfficiencyCalibrationType	EfficiencyValueList	A list of efficiency values as decimal fractions; i.e., normally between 0.0 and 1.0.
EfficiencyCalibrationType	EfficiencyUncertaintyValueList	A list of the 1-sigma absolute uncertainties in a set of EfficiencyValues.
EfficiencyCalibrationType	CalibrationDateTime	A date and time at which a calibration was put into service.
EfficiencyCalibrationType	EfficiencyCalibrationAugmentationPoint	An augmentation point for cbrn:EfficiencyCalibrationType.
EncounterDeviceOperatorCommentsType	DeviceOperatorCommentsText	A user-operator entered comment.
EncounterDeviceOperatorCommentsType	DeviceOperatorID	A unique identifier of the encounter device operator. There is no required format for the ID value.
EncounterDeviceOperatorCommentsType	EncounterDeviceOperatorCommentsAugmentationPoint	An augmentation point for cbrn:EncounterDeviceOperatorCommentsType.
EncounterRelationshipType	RelationshipBeginDateTime	A DateTime a relationship began.
EncounterRelationshipType	RelationshipEndDateTime	A DateTime a relationship ended.
EncounterRelationshipType	EncounterRelationshipAugmentationPoint	An augmentation point for cbrn:EncounterRelationshipType.
EnergiesKeVType	unitsText	A unit of measure for a value element. If used, the unit of measure shall be as stated in the documentation for the element.
EnergyCalibrationType	CoefficientOrBoundaryValuesChoice	A data concept for Coefficient values or EnergyBoundaryValues
EnergyCalibrationType	EnergyValueList	A list of energy values, in units of keV; the energies shall appear in the list in strictly increasing order. This element appears paired with an element that provides a corresponding list of other values, such as the EnergyDeviationValues, FWHMValues, or EfficiencyValues elements. The number and order of corresponding values in the pair of lists must match.
EnergyCalibrationType	EnergyDeviationValueList	A list of values providing the differences in the energies predicted by an energy calibration coefficients equation and the true energies. $E_{Predicted} = T_0 + T_1 * C + T_2 * C^2$ $E_{Deviation} = f(E_{Predicted})$ $E_{Actual} = E_{Predicted} + E_{Deviation}$ Where $T_n$ are the coefficients from the CoefficientValues element data, C is the channel position

Type Name	Property Name	Property Definition
		(the first channel starts at "0.0"), EPredicted is the predicted energy (in keV) at channel C, EDeviation is the energy deviation value (in keV) from interpolation of the EnergyValues and EnergyDeviationValues data, and EActual is the final corrected energy at channel C.
EnergyCalibrationType	CalibrationDateTime	A date and time at which a calibration was put into service.
EnergyCalibrationType	EnergyCalibrationAugmentationPoint	An augmentation point for cbrn:EnergyCalibrationType.
EnergyDeviationsKeVType	unitsText	A unit of measure for a value element. If used, the unit of measure shall be as stated in the documentation for the element.
EnergyWindowsType	WindowStartEnergyValueList	A start energy for each of a series of energy windows, in keV.
EnergyWindowsType	WindowEndEnergyValueList	An end energy for each of a series of energy windows, in keV.
EnergyWindowsType	EnergyWindowsAugmentationPoint	An augmentation point for cbrn:EnergyWindowsType.
EquationType	EquationCoefficientValueList	A list of values of the coefficients of an equation.
EquationType	EquationCovarianceMatrixValueList	A white-space delimited list of values that provide the lower triangular half of an equation covariance matrix.
EquationType	EquationKindCode	A kind of an equation.
EquationType	EquationDescriptionText	A text description of an error that occurred at a specific XML tag while processing an XML message.
EquationType	LowerLimitValue	A lowest value of X for which an equation is valid.
EquationType	UpperLimitValue	A highest value of X for which an equation is valid.
EquationType	EquationAugmentationPoint	An augmentation point for cbrn:EquationType.
ExposureAnalysisResultsType	AverageExposureRateValue	An average exposure rate reported in an analysis results, expressed in milliroentgen per hour (mR/h).
ExposureAnalysisResultsType	AverageExposureRateUncertaintyValue	A combined 1-sigma uncertainty associated with an average exposure rate reported in an analysis results, expressed in milliroentgen per hour (mR/h).
ExposureAnalysisResultsType	MaximumExposureRateValue	A value for the maximum exposure rate observed over all measurements input to AnalysisResults, in milliroentgen per hour (mR/h).

Type Name	Property Name	Property Definition
ExposureAnalysisResultsType	MinimumExposureRateValue	A value for the minimum exposure rate observed over all measurements input to AnalysisResults, in milliroentgen per hour (mR/h).
ExposureAnalysisResultsType	BackgroundExposureRateValue	An average background exposure rate reported in an analysis results, expressed in milliroentgen per hour (mR/h).
ExposureAnalysisResultsType	BackgroundExposureRateUncertaintyValue	A combined 1-sigma uncertainty associated with an average background exposure rate reported in an analysis results, expressed in milliroentgen per hour (mR/h).
ExposureAnalysisResultsType	TotalExposureValue	A value for the accumulated exposure over all measurements input to AnalysisResults, in milliroentgen (mR).
ExposureAnalysisResultsType	SourcePosition	An estimated location of a nuclide source by actual geographical coordinates or relative to a reference point.
ExposureAnalysisResultsType	ExposureAnalysisResultsAugmentationPoint	An augmentation point for cbrn:ExposureAnalysisResultsType.
ExposureRateType	unitsText	A unit of measure for a value element. If used, the unit of measure shall be as stated in the documentation for the element.
ExposureRateType	ExposureRateValue	A measured radiation exposure rate value, in milliroentgen per hour (mR/h).
ExposureRateType	ExposureRateLevelDescriptionText	A qualitative description of the radiation exposure rate level, such as low, medium, high, or a numerical scale 0 to 9.
ExposureRateType	RadDetectorInformation	A set of information regarding a radiation detector.
ExposureRateType	RadRawExposureRate	An ExposureRate measurement data element(s) used to produce derived data. There shall be no duplicate IDREF values in the list. This is required whenever the element is used within a DerivedData block, and prohibited otherwise.
ExposureRateType	ExposureRateAugmentationPoint	An augmentation point for cbrn:ExposureRateType.
FaultType	FaultCodeValueText	An instrument-specific code that identifies the error or problem.
FaultType	FaultDescriptionText	A description of the problem that occurred.
FaultType	FaultSeverityCode	A code indicating the seriousness of a fault.
FaultType	FaultAugmentationPoint	An augmentation point for cbrn:FaultType.

Type Name	Property Name	Property Definition
FWHMCalibrationType	EnergyValueList	A list of energy values, in units of keV; the energies shall appear in the list in strictly increasing order. This element appears paired with an element that provides a corresponding list of other values, such as the EnergyDeviationValues, FWHMValues, or EfficiencyValues elements. The number and order of corresponding values in the pair of lists must match.
FWHMCalibrationType	FWHMValueList	A list of FWHM values, in units of keV. The number and order of corresponding values in the EnergyValues and FWHMValues lists must match.
FWHMCalibrationType	FWHMUncertaintyValueList	A list of the 1-sigma absolute uncertainties in units of keV, in the FWHM values contained in the FWHMValues element list. The number and order of corresponding values in the FWHMValues and FWHMUncertaintyValues lists must match.
FWHMCalibrationType	CalibrationDateTime	A date and time at which a calibration was put into service.
FWHMCalibrationType	FWHMCalibrationAugmentationPoint	An augmentation point for cbrn:FWHMCalibrationType.
FWHMKeVType	unitsText	A unit of measure for a value element. If used, the unit of measure shall be as stated in the documentation for the element.
FWHMUncertaintiesKeVType	unitsText	A unit of measure for a value element. If used, the unit of measure shall be as stated in the documentation for the element.
GeographicPointType	LatitudeValue	A point's latitude on the surface of the earth expressed as geographic coordinates in decimal degrees. Points in the northern hemisphere range from 0.0 to +90.0 degrees. Points in the southern hemisphere range from 0.0 to -90.0.
GeographicPointType	LongitudeValue	A point's longitude on the surface of the earth expressed in decimal degrees. Points east of the prime meridian range from 0.0 to +180.0 degrees. Points west of the prime meridian range from 0.0 to -180.0.
GeographicPointType	ElevationValue	A value for the elevation of a GeographicPoint in meters relative to the applicable datums ellipsoid.
GeographicPointType	ElevationOffsetValue	A value for the difference between the Elevation at a point of coordinate measurement and the earth's surface in meters.
GeographicPointType	GeoPointAccuracyValue	An estimated 1-sigma positional accuracy in meters (m) of a geographic point described by the latitude and longitude

Type Name	Property Name	Property Definition
		coordinates of the point.
GeographicPointType	ElevationAccuracyValue	A value for the estimated accuracy of the elevation of a geographic point.
GeographicPointType	ElevationOffsetAccuracyValue	A value for the estimated accuracy of the elevation offset vertically to the earth's surface from a geographic point.
GeographicPointType	datumText	A value identifying the spatial reference system in which geographic coordinates are stated. Default is WGS-84.
GeographicPointType	unitsText	A unit of measure for a value element. If used, the unit of measure shall be as stated in the documentation for the element.
GeographicPointType	GeographicPointAugmentationPoint	An augmentation point for cbrn:GeographicPointType.
GrossCountAnalysisResultsType	AverageCountRateValue	An average count rate observed over all measurements input to AnalysisResults, in counts per second (cps).
GrossCountAnalysisResultsType	AverageCountRateUncertaintyValue	An average count rate value of 1-sigma uncertainty, in counts per second (cps).
GrossCountAnalysisResultsType	MaximumCountRateValue	A value for the maximum count rate observed over all measurements input to AnalysisResults, in counts per second.
GrossCountAnalysisResultsType	MinimumCountRateValue	A value for the minimum count rate observed over all measurements input to AnalysisResults, in counts per second.
GrossCountAnalysisResultsType	TotalCountsValue	A value for the total counts observed.
GrossCountAnalysisResultsType	BackgroundCountRateValue	A background rate used in an analysis, in counts per second (cps).
GrossCountAnalysisResultsType	BackgroundCountRateUncertaintyValue	A 1-sigma uncertainty in the background count rate used in an analysis, in counts per second (cps).
GrossCountAnalysisResultsType	SourcePosition	An estimated location of a nuclide source by actual geographical coordinates or relative to a reference point.
GrossCountAnalysisResultsType	GrossCountAnalysisResultsAugmentationPoint	An augmentation point for cbrn:GrossCountAnalysisResultsType.
GrossCountsType	LiveTimeDuration	A duration during which a detection assembly is sensitive to the input signal. The value of LiveTimeDuration is always less than or equal to the value of RealTimeDuration, because it does not include the time that the radiation detector was unable to re
GrossCountsType	CountDataValueList	A number indicating the counts accumulated during a measurement period over the entire energy range

Type Name	Property Name	Property Definition
		measured by a radiation detector or within pre-defined energy windows.
GrossCountsType	TotalCountDataValueList	A list of values for the total number of counts accumulated since the last radiation detection instrument reset over the entire energy range measured by the radiation detection instrument or within pre-defined energy windows.
GrossCountsType	EnergyWindows	A definition of a set of energy windows used in gross counting.
GrossCountsType	RadRawGrossCounts	A GrossCounts measurement data element(s) used to produce derived data. There shall be no duplicate IDREF values in the list. This is required whenever the element is used within a DerivedData block, and prohibited otherwise.
GrossCountsType	RadDetectorInformation	A set of information regarding a radiation detector.
GrossCountsType	GrossCountsAugmentationPoint	An augmentation point for cbrn:GrossCountsType.
ImageFileType	ImageResolutionValue	A resolution at which an image is captured. Units are pixels per inch.
ImageFileType	ImageOrientation	A data concept for the viewing orientation of an image; i.e., portrait or landscape.
ImageFileType	ImagePerspective	A data concept for the viewing perspective of the subject of an image captured as a digital data file.
ImageFileType	ImageFileAugmentationPoint	An augmentation point for cbrn:ImageFileType.
InspectionDataType	ScanIdentificationData	An inspected item's scan information
InspectionDataType	ThreatLevelDetermination	A data concept for a threat level based on findings during an inspection.
InspectionDataType	InspectionEventDateTime	A DateTime of an inspection event.
InspectionDataType	InspectionResolution	A data concept for the resolution of an inspection.
InspectionDataType	InspectionDataAugmentationPoint	An augmentation point for cbrn:InspectionDataType.
LayerType	LayerSequenceNumeric	A number for the sequence of a layer, if there is more than one layer. The outermost layer is 1.
LayerType	LayerMaterial	A data concept for the material of which a shielding layer is composed.
LayerType	LayerDensityValue	A shielding layer density expressed in unit of measure g/cm <sup>2</sup> .



Type Name	Property Name	Property Definition
LayerType	LayerAugmentationPoint	An augmentation point for cbrn:LayerType.
MapGuideLocationType	MapGuideBrandCode	A code for the Brand name of a Map Guide document that provides maps of a locale with a vendor-unique grid reference system.
MapGuideLocationType	MapGuideName	A Name of a Map Guide document providing maps of a locale.
MapGuideLocationType	MapGuidePageNumberID	An identifier that refers to a page in a Map Guide document.
MapGuideLocationType	MapGuideGridNumberID	An identifier that refers to a map grid in a Map Guide document
MapGuideLocationType	MapGuideLocationAugmentationPoint	An augmentation point for cbrn:MapGuideLocationType.
MeasuredItemIdentificationType	MeasuredItemID	An Identifier of a measured item. There is no required format for the ID value.
MeasuredItemIdentificationType	MeasuredItemIDKind	A data concept for a kind of identifier used for identifying a measured item.
MeasuredItemIdentificationType	IDAcquisitionMethod	A data concept for a method of acquiring the identifier of an item.
MeasuredItemIdentificationType	IDConfidenceCode	A code for the confidence that the measured item identifier is correct.
MeasuredItemIdentificationType	EntryPersonID	A unique identifier of the person who entered or confirmed a measured item identifier. There is no required format for the ID
MeasuredItemIdentificationType	MeasuredItemIdentificationAugmentationPoint	An augmentation point for cbrn:MeasuredItemIdentificationType.
MessageContentErrorType	ErrorNodeName	A name of the XML tag at which an error occurred.
MessageContentErrorType	ErrorDescription	A text description of an error that occurred at a specific XML tag while processing an XML message.
MessageContentErrorType	MessageContentErrorAugmentationPoint	An augmentation point for cbrn:MessageContentErrorType.
MessageErrorType	ErrorCodeText	An error code.
MessageErrorType	ErrorCodeDescriptionText	A description of an error code in free form text.
MessageErrorType	MessageErrorAugmentationPoint	An augmentation point for cbrn:MessageErrorType.
MessageOriginOrDestinationType	FacilityID	A unique identifier assigned to a facility. There is no required format for the ID value.

Type Name	Property Name	Property Definition
MessageOriginOrDestinationType	OrganizationParentName	A Name of the parent organization of an organization.
MessageOriginOrDestinationType	MilitaryUnitSizeText	A description of the size of a military unit by use of echelon name.
MessageOriginOrDestinationType	MilitaryUnitRoleTextList	A list of functional roles performed by a military organization.
MessageOriginOrDestinationType	MessageOriginOrDestinationAugmentationPoint	An augmentation point for cbrn:MessageOriginOrDestinationType.
MessageStatusType	CredentialsAuthenticatedCode	A verification of the authenticating credentials.
MessageStatusType	MessageID	An identifier associated with a message content. There is no required format for the ID value.
MessageStatusType	MessageKindCode	A code for a kind of information content contained in a message.
MessageStatusType	MessageStatusCode	A code for the receiving status of a message.
MessageStatusType	MeasuredItemID	An Identifier of a measured item. There is no required format for the ID value.
MessageStatusType	MeasuredItemKindCode	A code for a kind of identifier used for identifying a measured item.
MessageStatusType	MessageContentError	A set of information about the point in the xml payload content of a message where an error occurred in processing the message.
MessageStatusType	MessageHandlingError	A description of a message error encountered by an infrastructure component in the process of message handling and transmission.
MessageStatusType	TraversalID	A unique identifier of a traversal. There is no required format for the ID value.
MessageStatusType	ResendRequestIndicator	True if the message should be resent; false otherwise.
MessageStatusType	MessageStatusAugmentationPoint	An augmentation point for cbrn:MessageStatusType.
MultimediaDataType	MultimediaDataDescriptionText	A description of the contents or any other aspects of the multimedia data.
MultimediaDataType	MultimediaCaptureStartDateTime	A date-time at which capture of the multimedia data was started.
MultimediaDataType	MultimediaCaptureDuration	A total duration of time covered by the data recorded by a multimedia device.
MultimediaDataType	MultimediaFileURI	A location of a file containing multimedia data, if the data are not included within the contents of a MultimediaData

Type Name	Property Name	Property Definition
		element.
MultimediaDataType	MultimediaFileSizeValue	A multimedia file size in kilobytes (kB).
MultimediaDataType	MultimediaDataMIMEKindText	A media type listed in <a href="http://www.iana.org/assignments/media-types/index.html">http://www.iana.org/assignments/media-types/index.html</a> . If the media type is not listed, then describe the media type using free-form text.
MultimediaDataType	EncodingMIMEKindText	An encoding MIME type of a digital data file.
MultimediaDataType	MultimediaDeviceCategoryCode	A kind of device that recorded an instance of multimedia data.
MultimediaDataType	MultimediaDeviceID	A unique Identifier (e.g., serial number) of the device that recorded the multimedia data.
MultimediaDataType	ImagePerspective	A data concept for the viewing perspective of the subject of an image captured as a digital data file.
MultimediaDataType	RadItemInformation	A set of information describing a measured item.
MultimediaDataType	sequenceNumeric	A processing order of multiple MultimediaData elements; the elements should be processed in increasing order of this value.
MultimediaDataType	MultimediaDataAugmentationPoint	An augmentation point for cbrn:MultimediaDataType.
NuclideActivityType	unitsText	A unit of measure for a value element. If used, the unit of measure shall be as stated in the documentation for the element.
NuclideActivityUncertaintyType	unitsText	A unit of measure for a value element. If used, the unit of measure shall be as stated in the documentation for the element.
NuclideAnalysisResultsType	Nuclide	A set of data for the analysis results for a single radionuclide.
NuclideAnalysisResultsType	NuclideAnalysisReducedChiSquareValue	A value for the difference between the observed data and predicted values, normalized to an expected value of unity.
NuclideAnalysisResultsType	NuclideAnalysisResultsAugmentationPoint	An augmentation point for cbrn:NuclideAnalysisResultsType.
NuclideMDAType	unitsText	A unit of measure for a value element. If used, the unit of measure shall be as stated in the documentation for the element.
NuclideType	NuclideIdentifiedIndicator	True if identified; false otherwise. Indicates whether the nuclide was identified by the analysis.

Type Name	Property Name	Property Definition
NuclideType	NuclideName	A Name of the nuclide.
NuclideType	NuclideActivityValue	A calculated activity of a nuclide at the measurement time, expressed in kilobecquerel (kBq) units.
NuclideType	NuclideActivityUncertaintyValue	A 1-sigma absolute uncertainty in the value of a NuclideActivityValue, expressed in kilobecquerel (kBq) units.
NuclideType	NuclideMinimumDetectableActivityValue	A value for the minimum detectable activity (MDA) of a nuclide, expressed in kilobecquerel (kBq) units.
NuclideType	NuclideIdentificationConfidence	A data concept for the confidence of identification of a nuclide.
NuclideType	NuclideCategoryDescriptionText	A description of the category of the nuclide.
NuclideType	NuclideSourceGeometryCode	An assessed geometry of a radiation source.
NuclideType	SourcePosition	An estimated location of a nuclide source by actual geographical coordinates or relative to a reference point.
NuclideType	NuclideShieldingAtomicNumberID	An identifier of the estimated effective atomic number of the material shielding a nuclide.
NuclideType	NuclideShieldingArealDensityValue	An estimated effective areal density of the material shielding a nuclide, in g/cm <sup>2</sup> .
NuclideType	NuclideAugmentationPoint	An augmentation point for cbrn:NuclideType.
OperatingScheduleType	ScheduleStartDateTime	A date when a schedule is effective.
OperatingScheduleType	ScheduleEndDateTime	A date when the schedule is no longer effective. If not provided, then the end date is considered to be indefinite. The end date, if provided, must be later than the start date.
OperatingScheduleType	ScheduleTimeZoneText	A text identification of the time zone that applies to a schedule.
OperatingScheduleType	OperatingScheduleAugmentationPoint	An augmentation point for cbrn:OperatingScheduleType.
OrientationType	AzimuthValue	An object's (i.e., instrument, detector, or item) orientation, with respect to True North. Its value is the angle subtended by a line from the center point of the object to True North in the horizontal plane and the line formed by the object's front-to-back axis projected onto the horizontal plane. The angle range is from "-180.0" to "+180.0" degrees. A value of zero implies the front of the object's body is pointed to True North; positive values imply the front is pointed to the east of True North; negative values

Type Name	Property Name	Property Definition
		imply the front is pointed to the west of True North.
OrientationType	InclinationValue	An object's orientation (i.e., radiation measurement instrument, radiation detector, or measured item) with respect to the horizontal plane. Its value is the angle subtended by the line formed by the objects front-to-rear axis and the line formed by the projection of that line onto the horizontal plane. The angle range is from "-90.0" to "+90.0" degrees. A value of zero implies the object's front-to-rear axis is level, i.e., aligned with the horizontal plane; positive values implies the object is pointed up; negative values imply the object is pointed down.
OrientationType	RollValue	An object's orientation (e.g., radiation detection instrument, radiation detector, or measured item) with respect to the axis running from the front to the back of the object. Its value is the angle subtended by a line defined by the objects left-to-right axis and a line defined by the same axis when it is aligned with the horizontal plane. The angle range is from "-180.0" to "+180.0" degrees. A value of zero implies the object's body is not rotated about the front-to-back axis and its left-to-right axis is aligned with the horizontal plane (though the object may be inclined); positive values are clockwise rotations about the front-to-back axis when viewed from behind the object and looking towards the direction to which the object is pointing; negative values are counterclockwise rotations.
OrientationType	OrientationAugmentationPoint	An augmentation point for cbrn:OrientationType.
OriginType	GeographicPoint	A set of geographical coordinates providing latitude, longitude, and elevation (at the point of measurement and at the point on the earth's surface), and uncertainty of the coordinates.
OriginType	OriginDescriptionText	A description of the point or object to which the RelativeLocation information (distance, inclination angle, azimuth angle) applies.
OriginType	RadInstrumentInformation	A set of information that describes a radiation measurement instrument.
OriginType	RadDetectorInformation	A set of information regarding a radiation detector.
OriginType	MeasuredItemIdentification	An identification data for a measured item.

Type Name	Property Name	Property Definition
OriginType	OriginAugmentationPoint	An augmentation point for cbrn:OriginType.
PhotonDataType	MeanPhotonValue	A value for the mean of the maximum number of photons in open air per pixel. Can be per system or per detector.
PhotonDataType	PhotonEnergyValue	A value for the mean energy of photons in MeV.
PhotonDataType	PhotonSource	A data concept for a photon source for a radiographic device.
PhotonDataType	PhotonDataAugmentationPoint	An augmentation point for cbrn:PhotonDataType.
PointXYType	XValue	A value (and optionally, the 1-sigma absolute uncertainty of this value), of the first dimension of an equation.
PointXYType	YValue	A value (and optionally, the 1-sigma absolute uncertainty of this value), of the second dimension of an equation.
PointXYType	yUncertaintyValue	A value for the 1-sigma absolute total uncertainty (i.e., including all sources of uncertainty) in the Y value of an equation. An uncertainty value of 0 means unknown.
PointXYType	xUncertaintyValue	A value for the 1-sigma absolute total uncertainty (i.e., including all sources of uncertainty) in the X value of an equation. An uncertainty value of 0 means unknown.
PointXYType	PointXYAugmentationPoint	An augmentation point for cbrn:PointXYType.
PositiveLengthCMType	unitsText	A unit of measure for a value element. If used, the unit of measure shall be as stated in the documentation for the element.
PositiveVolumeCCType	unitsText	A unit of measure for a value element. If used, the unit of measure shall be as stated in the documentation for the element.
RadAlarmType	RadAlarmDateTime	A date and time of an alarm.
RadAlarmType	RadAlarmCategoryCode	A category of radiation alarm (e.g., Neutron).
RadAlarmType	RadAlarmDescriptionText	A free-form description of the radiation alarm.
RadAlarmType	AlarmAudibleIndicator	True if an audible alarm was announced; false otherwise. An indicator if an audible alarm was annunciated.
RadAlarmType	RadAlarmLightColorText	A free-form text describing the color of the light (if any) annunciating an alarm.
RadAlarmType	RadAlarmEnergyWindowIndexValueList	A list of one or more indices (If applicable) that indicate the position(s) of the value(s) in the WindowStartEnergyValues and WindowEndEnergyValues that triggered an alarm(s).

Type Name	Property Name	Property Definition
RadAlarmType	RadDetectorInformation	A set of information regarding a radiation detector.
RadAlarmType	RadAlarmAugmentationPoint	An augmentation point for cbrn:RadAlarmType.
RadDetectorInformationType	RadDetectorName	A name of the radiation detector.
RadDetectorInformationType	RadDetectorCategoryCode	A code for a general category of radiation detected; e.g., Gamma, Neutron.
RadDetectorInformationType	RadDetectorKindCode	A code for a specific kind of radiation detector; e.g., NaI.
RadDetectorInformationType	RadDetectorDescriptionText	A description of the radiation detector.
RadDetectorInformationType	RadDetectorLengthValue	A rectangular or cylindrical radiation detector's length, in centimeters (cm).
RadDetectorInformationType	RadDetectorWidthValue	A rectangular radiation detector's width, in centimeters (cm).
RadDetectorInformationType	RadDetectorDepthValue	A rectangular radiation detector's depth , in centimeters (cm).
RadDetectorInformationType	RadDetectorDiameterValue	A cylindrical radiation detector's diameter, in centimeters (cm).
RadDetectorInformationType	RadDetectorVolumeValue	A radiation detector's volume, in cubic centimeters (cc).
RadDetectorInformationType	RadDetectorCharacteristics	A radiation detector's characteristics that are not otherwise explicitly addressed in this standard. Each non-standard characteristic consists of name, value, units, and value data class. Characteristics may also be organized in characteristic groups.
RadDetectorInformationType	RadDetectorInformationAugmentationPoint	An augmentation point for cbrn:RadDetectorInformationType.
RadDetectorStateType	StateVector	A set of state values for a radiation measurement instrument, a radiation detector, or a measured item.
RadDetectorStateType	Fault	A collection of information describing an error that occurred in an instrument, a specific detector, or during the analysis of data.
RadDetectorStateType	RadDetectorCharacteristics	A radiation detector's characteristics that are not otherwise explicitly addressed in this standard. Each non-standard characteristic consists of name, value, units, and value data class. Characteristics may also be organized in characteristic groups.
RadDetectorStateType	RadDetectorInformation	A set of information regarding a radiation detector.

Type Name	Property Name	Property Definition
RadDetectorStateType	RadDetectorStateAugmentationPoint	An augmentation point for cbrn:RadDetectorStateType.
RadInstrumentDataType	RadInstrumentDataCreatorName	A name of the organization that created the N42 XML document.
RadInstrumentDataType	RadItemInformation	A set of information describing a measured item.
RadInstrumentDataType	RadInstrumentInformation	A set of information that describes a radiation measurement instrument.
RadInstrumentDataType	RadDetectorInformation	A set of information regarding a radiation detector.
RadInstrumentDataType	RadInstrumentDataChoice	A data concept for a variant of data that is generated by the rad instrument.
RadInstrumentDataType	n42DocUUID	A universally unique identifier for this particular N42 XML document. See ISO/IEC 11578.
RadInstrumentDataType	n42DocDateTime	A date and time of creation of a N42 XML document.
RadInstrumentDataType	RadInstrumentDataAugmentationPoint	An augmentation point for cbrn:RadInstrumentDataType.
RadInstrumentInformationType	RadInstrumentManufacturerName	A Name of the manufacturer of the radiation measurement instrument.
RadInstrumentInformationType	RadInstrumentID	A unique Identifier for the specific radiation measurement instrument; such as serial number or asset tag number.
RadInstrumentInformationType	RadInstrumentModelName	A name of the manufacturer's model radiation measurement instrument, number, or other description of the radiation measurement instrument.
RadInstrumentInformationType	RadInstrumentDescriptionText	A description of the radiation measurement instrument.
RadInstrumentInformationType	RadInstrumentClassCode	A code for a class of radiation measurement instrument.
RadInstrumentInformationType	RadInstrumentVersion	A description of the versions of the various components of a radiation measurement instrument. At a minimum, there shall be an instance of this element with the component name Software that describes the version of the software and/or firmware that collected the radiation data that is reported by a radiation detection instrument.
RadInstrumentInformationType	RadInstrumentQualityControl	A radiation measurement instrument's quality control status describing its fitness for service.
RadInstrumentInformationType	RadInstrumentCharacteristics	A radiation measurement instrument's characteristics that are not otherwise explicitly addressed in this standard. Each non-standard characteristic consists of name, value, units, and value data class. Characteristics may also be



Type Name	Property Name	Property Definition
		organized in character
RadInstrumentInformationType	RadInstrumentInformationAugmentationPoint	An augmentation point for cbrn:RadInstrumentVersionType.
RadInstrumentQualityControlType	InspectionDateTime	A date and time at which a radiation measurement instrument's calibration and in-service status were determined.
RadInstrumentQualityControlType	InCalibrationIndicator	true if properly calibrated and considered in service; false otherwise. The indication that the radiation measurement instrument is fit for service:
RadInstrumentQualityControlType	RadInstrumentQualityControlAugmentationPoint	An augmentation point for cbrn:RadInstrumentQualityControlType.
RadInstrumentStateType	RadInstrumentOperatingModeCode	A code for the operating mode of a radiation measurement instrument.
RadInstrumentStateType	RadInstrumentModeDescriptionText	A description of the operating mode of the radiation measurement instrument. This element shall be used if RadInstrumentModeCode is Other.
RadInstrumentStateType	StateVector	A set of state values for a radiation measurement instrument, a radiation detector, or a measured item.
RadInstrumentStateType	Fault	A collection of information describing an error that occurred in an instrument, a specific detector, or during the analysis of data.
RadInstrumentStateType	RadInstrumentCharacteristics	A radiation measurement instrument's characteristics that are not otherwise explicitly addressed in this standard. Each non-standard characteristic consists of name, value, units, and value data class. Characteristics may also be organized in character
RadInstrumentStateType	RadInstrumentInformation	A set of information that describes a radiation measurement instrument.
RadInstrumentStateType	RadInstrumentStateAugmentationPoint	An augmentation point for cbrn:RadInstrumentStateType.
RadInstrumentVersionType	RadInstrumentComponentName	A Name of the radiation detection measurement component.
RadInstrumentVersionType	RadInstrumentComponentVersionText	A description of the version of a particular radiation measurement instrument component.
RadInstrumentVersionType	RadInstrumentVersionAugmentationPoint	An augmentation point for cbrn:RadInstrumentVersionType.
RadItemInformationType	RadItemDescriptionText	A description of the item being measured.

Type Name	Property Name	Property Definition
RadItemInformationType	RadItemQuantity	A count or size of the item being measured, and its uncertainty. The units and interpretation of this value will be application-specific, but will normally be the weight or volume of the measured item, used in the calculation of item activity concentration.
RadItemInformationType	RadItemMeasurementGeometryDescriptionText	A description of the position and/or shape of the geometry used in the measurement of this item; e.g., shape of the item, item orientation relative to the radiation detectors, position of any attenuators used.
RadItemInformationType	RadItemCharacteristics	A set of data providing characteristics of a measured item that are not otherwise explicitly defined in the relevant IEPD schema. Each characteristic consists of name, value, units, and value data class. Characteristics may also be organized in characteristic groups.
RadItemInformationType	RadItemInformationAugmentationPoint	An augmentation point for cbrn:RadItemInformationType.
RadItemQuantityType	RadItemQuantityValue	A value for the 1-sigma absolute uncertainty in a RadItemQuantityValue.
RadItemQuantityType	RadItemQuantityUncertaintyValue	A value for the 1-sigma absolute uncertainty in a RadItemQuantityValue.
RadItemQuantityType	RadItemQuantityUnitText	A value for the 1-sigma absolute uncertainty in a RadItemQuantityValue.
RadItemQuantityType	RadItemQuantityAugmentationPoint	An augmentation point for cbrn:RadItemQuantityType.
RadItemStateType	StateVector	A set of state values for a radiation measurement instrument, a radiation detector, or a measured item.
RadItemStateType	RadItemCharacteristics	A set of data providing characteristics of a measured item that are not otherwise explicitly defined in the relevant IEPD schema. Each characteristic consists of name, value, units, and value data class. Characteristics may also be organized in characteristic groups.
RadItemStateType	RadItemInformation	A set of information describing a measured item.
RadItemStateType	RadItemStateAugmentationPoint	An augmentation point for cbrn:RadItemStateType.
RadMeasurementGroupType	RadMeasurementGroupDescriptionText	A description of the RadMeasurementGroup.
RadMeasurementGroupType	radMeasurementGroupUUID	A universally unique identifier with in the N42 XML document for a particular measurement group. See ISO/IEC 11578.

Type Name	Property Name	Property Definition
RadMeasurementGroupType	RadMeasurementGroupAugmentationPoint	An augmentation point for cbrn:RadMeasurementGroupType.
RadMeasurementType	MeasurementClassCode	An indicator A code indicating whether the data are a measurement of an item (Foreground), an environmental background (Background), a calibration source (Calibration), the intrinsic activity of the radiation measurement instrument (IntrinsicActivity), or not specified (NotSpecified).
RadMeasurementType	StartDateTime	A time corresponding to the start of the collection of the data contained in a particular measurement.
RadMeasurementType	RealTimeDuration	A total clock time (in ISO 8601 format) expended by an instrument in collecting a measurement; the duration shall be greater than zero.
RadMeasurementType	Spectrum	A single spectrum measurement with references to other pertinent information about the measurement.
RadMeasurementType	GrossCounts	A gross count from a radiation detector.
RadMeasurementType	DoseRate	A measured ambient dose equivalent rate, provided as a value and/or a qualitative description.
RadMeasurementType	TotalDoseNumeric	A value for the accumulated ambient dose equivalent since the last radiation detection instrument reset, in microsieverts (Sv).
RadMeasurementType	ExposureRate	A combined 1-sigma uncertainty associated with an average exposure rate reported in an analysis results, expressed in milliroentgen per hour (mR/h).
RadMeasurementType	TotalExposureNumeric	A set of data for the accumulated exposure since the last instrument reset, in milliroentgen (mR).
RadMeasurementType	RadInstrumentState	A radiation measurement instrument's current state in terms of its mode of operation, location (absolute or relative), orientation, altitude, speed and other operating parameters.
RadMeasurementType	RadDetectorState	A radiation detector's current state in terms of its location (absolute or relative), orientation, altitude, speed, and operating parameters.
RadMeasurementType	RadItemState	A measured item's current state in terms of its location (absolute or relative), orientation, speed, or other known characteristics.
RadMeasurementType	OccupancyIndicator	A measured item's current state in terms of its location (absolute or relative), orientation, speed, or other known characteristics.

Type Name	Property Name	Property Definition
RadMeasurementType	RadMeasurementGroup	A group of RadMeasurements.
RadMeasurementType	RadItemInformation	A set of information describing a measured item.
RadMeasurementType	RadMeasurementAugmentationPoint	An augmentation point for cbrn:RadMeasurementType.
ReachbackDataType	ReachbackFindingsText	A description of reachback findings.
ReachbackDataType	ReachbackRecommendationCode	A description of a reachback recommendation.
ReachbackDataType	ReachbackRecommendationDateTime	A DateTime that a reachback recommendation was made.
ReachbackDataType	ReachbackRequestCode	A code for a category of reachback request.
ReachbackDataType	ReachbackReasonText	A text description of the reason for a reachback request.
ReachbackDataType	ReachbackDataAugmentationPoint	An augmentation point for cbrn:ReachbackDataType.
RelativeLocationType	RelativeLocationAzimuthValue	A horizontal bearing angle with respect to True North from a reference point (Origin) to an object (i.e., instrument, detector, or item) or a nuclide. Its value is the angle subtended by the projection onto the horizontal plane of a straight line from the reference point to the center of the object or nuclide, and a line extending in the forward direction from the reference point. The angle range is from "-180.0" to "+180.0" degrees. A value of zero implies the center of the object or nuclide's body is aligned directly in front of the reference point; positive values imply the object or nuclide is to the right of the reference point; negative values imply the object or nuclide is to the left of the reference point.
RelativeLocationType	RelativeLocationInclinationValue	A vertical bearing angle with respect to the horizontal plane from a reference point (Origin) to an object (i.e., instrument, detector, or item) or a nuclide. Its value is the angle subtended by a straight line, running from the center of the reference point to the center of the object or nuclide, and a projection of that line onto the horizontal plane. The angle range is from "-90.0" to "+90.0" degrees. A value of zero implies the center of the object or nuclide is at the same altitude or elevation as the reference point; positive values imply the object or nuclide is higher than the

Type Name	Property Name	Property Definition
		reference point; negative values imply the object or nuclide is lower than the reference point.
RelativeLocationType	DistanceValue	A scalar distance between the center of an object (i.e., instrument, detector, or item) or nuclide and the center of a reference point (Origin).
RelativeLocationType	Origin	A definition of an origin in a relative location coordinate system. The coordinates of a point in the relative location system are defined based on this origin.
RelativeLocationType	RelativeLocationAugmentationPoint	An augmentation point for cbrn:RelativeLocationType.
RemarksComplexObjectType	RemarkText	A placeholder for comments intended to help the consumer of the data to understand better the information encapsulated by the parent element.
RemarksComplexObjectType	RemarksComplexObjectAugmentationPoint	An augmentation point for cbrn:RemarksComplexObjectType.
ReportType	ReportDateTime	A DateTime when a report was created.
ReportType	CredentialsAuthentication	A data concept for the state of user credentials authentication.
ReportType	ReportAugmentationPoint	An augmentation point for cbrn:ReportType.
RequestAgencyType	RequestAgencyCode	An organization from which a request was initiated.
RequestAgencyType	RequestAgencyContactInformation	A set of contact information for an organization that initiates a request.
RequestAgencyType	RequestAgencyAugmentationPoint	An augmentation point for cbrn:RequestAgencyType.
RequestDataType	RequestScopeCode	A description of the requests scope.
RequestDataType	RequestDateTime	A requests datetime .
RequestDataType	RequestID	A unique identifier of a request. There is no required format for the Identifier value.
RequestDataType	RequestAgency	An organization that initiated a request.
RequestDataType	ActivityName	A name of the activity associated with a request. This property can be used to provide data for workflow coordination by the sending or receiving systems.
RequestDataType	RequestUpdateIndicator	True if the request is an update to the request identified by RequestIdentifier; false if the request is new.

Type Name	Property Name	Property Definition
RequestDataType	RequestCancelIndicator	True if the request is a cancellation of the request identified by <RequestIdentifier>; false if omitted, the request is not a cancellation.
RequestDataType	RequestDataAugmentationPoint	An augmentation point for cbrn:RequestDataType.
ResponseReportType	RequestData	A set of information identifying the request for which a message provides a response.
ResponseReportType	ResponseAgencyContactInformation	An organizations contact information that provides a response report in reply to a request.
ResponseReportType	ResponseReportAugmentationPoint	An augmentation point for cbrn:ResponseReportType.
ScanIdentificationType	MeasuredItemID	An Identifier of a measured item. There is no required format for the ID value.
ScanIdentificationType	MeasuredItemKind	A data concept for a kind or general category of item that is being inspected.
ScanIdentificationType	MeasuredItemIDKind	A data concept for a kind of identifier used for identifying a measured item.
ScanIdentificationType	TraversallID	A unique identifier of a traversal. There is no required format for the ID value.
ScanIdentificationType	DetectionEventUUID	A unique identifier of the Detection Event for which the user entered the data.
ScanIdentificationType	ScanQualityCode	A code describing the quality of a scan.
ScanIdentificationType	ScanIdentificationAugmentationPoint	An augmentation point for cbrn:ScanIdentifierDataType.
ScheduleByWeekDayType	MondayHoursText	A text description of the normal Monday operating hours.
ScheduleByWeekDayType	TuesdayHoursText	A text description of the normal Tuesday operating hours.
ScheduleByWeekDayType	WednesdayHoursText	A text description of the normal Wednesday operating hours.
ScheduleByWeekDayType	ThursdayHoursText	A text description of the normal Thursday operating hours.
ScheduleByWeekDayType	FridayHoursText	A text description of the normal Friday operating hours.
ScheduleByWeekDayType	SaturdayHoursText	A text description of the normal Saturday operating hours.
ScheduleByWeekDayType	SundayHoursText	A text description of the normal Sunday operating hours.
ScheduleByWeekDayType	ScheduleByWeekDayAugmentationPoint	An augmentation point for cbrn:ScheduleByWeekDayType.

Type Name	Property Name	Property Definition
ScheduleByWeekType	WeekEndHoursText	A text description of the normal weekend operating hours.
ScheduleByWeekType	WeekDayHoursText	A text description of the normal weekday operating hours.
ScheduleByWeekType	ScheduleByWeekAugmentationPoint	An augmentation point for cbrn:ScheduleByWeekType.
SecondaryInspectionReferralType	SecondaryInspectionKind	A data concept for a kind of secondary inspection
SecondaryInspectionReferralType	SecondaryInspectionReferralReasonCode	A reason why a Secondary Inspection was recommended.
SecondaryInspectionReferralType	SecondaryInspectionReferralID	An unique identifier of a Secondary Inspection referral.
SecondaryInspectionReferralType	SecondaryInspectionReferralAugmentationPoint	An augmentation point for cbrn:SecondaryInspectionReferralType.
SecondaryInspectionResolutionType	SourceSystemFindingCategoryText	A data concept for a category of threat found by an inspection.
SecondaryInspectionResolutionType	InspectionThreatFinding	A data concept for a category of threat found by an inspection.
SecondaryInspectionResolutionType	SecondaryInspectionKind	A data concept for a kind of secondary inspection
SecondaryInspectionResolutionType	SecondaryInspectionReferralID	An unique identifier of a Secondary Inspection referral.
SecondaryInspectionResolutionType	RadionuclideCode	A radionuclide identified by an inspection.
SecondaryInspectionResolutionType	SecondaryInspectionResolutionAugmentationPoint	An augmentation point for cbrn:SecondaryInspectionResolutionType.
ShieldingType	RadEncounterDeviceToShieldingDistanceMeasure	A distance from the center of mass of a encounter device to the closest outside portion of the outermost layer of shielding that is found between the encounter device and the radiation source.
ShieldingType	Layer	A description of a shielding layer.
ShieldingType	LayerQuantity	A number of shielding layers observed.
ShieldingType	MeasuredItemID	An Identifier of a measured item. There is no required format for the ID value.
ShieldingType	ShieldingAugmentationPoint	An augmentation point for cbrn:ShieldingType.
SiteLocationAugmentationType	GeographicPoint	A set of geographical coordinates providing latitude, longitude, and elevation (at the point of measurement and at the point on the earth's surface), and uncertainty of the

Type Name	Property Name	Property Definition
		coordinates.
SiteLocationAugmentationType	SiteSpecialInfoText	A description of a site that may contain information of importance to a responder; e.g., electrified fence, dogs on property, loft apartment, multi-storied building, multiple warehouses on site, hazardous material, etc.
SiteLocationAugmentationType	MapGuideLocation	A set of location information based on a map contained in a Map Guide document.
SiteLocationAugmentationType	SpecialEventName	A Name of a special event.
SiteLocationAugmentationType	SpecialEventStartDateTime	A starting date and time of a special event.
SiteLocationAugmentationType	SpecialEventEndDateTime	An ending date and time of a special event.
SiteLocationAugmentationType	SpecialEventSecurityArea	An area of operational security concern for a special event.
SourcePositionType	SourcePositionChoice	A data concept for the various ways a source position can be represented.
SourcePositionType	SourcePositionAugmentationPoint	An augmentation point for cbrn:SourcePositionType.
SpectrumPeakAnalysisResultsType	SpectrumPeak	A set of spectrum peak analysis results information for a single peak.
SpectrumPeakAnalysisResultsType	SpectrumPeakAnalysisResultsAugmentationPoint	An augmentation point for cbrn:SpectrumPeakAnalysisResultsType.
SpectrumPeakEnergyKeVType	unitsText	A unit of measure for a value element. If used, the unit of measure shall be as stated in the documentation for the element.
SpectrumPeakType	SpectrumPeakEnergyValue	A value for the measured energy of a spectrum peak, in keV.
SpectrumPeakType	SpectrumPeakExpectedEnergyValue	A value for the expected energy of a spectrum peak, in keV.
SpectrumPeakType	SpectrumPeakFWHMValue	A value for the measured FWHM of a spectrum peak, in keV.
SpectrumPeakType	SpectrumPeakNetAreaValue	A value for the net number of counts in a peak; i.e., total counts minus continuum counts. No other adjustment (e.g., environmental background subtraction), should be performed.
SpectrumPeakType	SpectrumPeakNetAreaUncertaintyValue	A value for the 1-sigma absolute uncertainty in a spectrum peak's net area.
SpectrumPeakType	SpectrumPeakAugmentationPoint	An augmentation point for cbrn:SpectrumPeakType.



Type Name	Property Name	Property Definition
SpectrumType	LiveTimeDuration	LiveTimeDuration
SpectrumType	ChannelDataValueList	A list of values, one for each of a spectrum's channels. The values represent the number of counts per channel.
SpectrumType	EnergyCalibration	An EnergyCalibration that spectrum measurements can reference as applicable to a particular spectrum.
SpectrumType	IntrinsicFullEnergyPeakEfficiencyCalibration	An intrinsic full-energy peak efficiency calibration. The intrinsic full-energy peak efficiency at any value of energy is the ratio of the net counts in a peak at that energy to the number of photons impinging on the radiation detector surface at that energy.
SpectrumType	FullEnergyPeakEfficiencyCalibration	An intrinsic full-energy peak efficiency calibration. The intrinsic full-energy peak efficiency at any value of energy is the ratio of the net counts in a peak at that energy to the number of photons impinging on the radiation detector surface at that energy.
SpectrumType	FWHMCalibration	A FWHM calibration for a gamma radiation detector; i.e., FWHM as a function of energy.
SpectrumType	IntrinsicSingleEscapePeakEfficiencyCalibration	An intrinsic single-escape peak efficiency calibration. The intrinsic single-escape peak efficiency at any value of energy is the ratio of the counts in the single-escape peak of that energy to the number of photons impinging on the radiation detector surface at that energy.
SpectrumType	IntrinsicDoubleEscapePeakEfficiencyCalibration	An intrinsic double-escape peak efficiency calibration. The intrinsic double-escape peak efficiency at any value of energy is the ratio of the counts in the double-escape peak of that energy to the number of photons impinging on the radiation detector surface at that energy.
SpectrumType	RadDetectorInformation	A set of information regarding a radiation detector.
SpectrumType	TotalEfficiencyCalibration	A total efficiency calibration. The total efficiency at any value of energy is the ratio of the total recorded pulses in a spectrum to the number of photons emitted from a source at that energy.
SpectrumType	RadRawSpectrum	A Spectrum data element(s) used to produce derived data. There shall be no duplicate IDREF values in the list. This is required whenever the element is used within a DerivedData block, and is prohibited otherwise.
SpectrumType	SpectrumAugmentationPoint	An augmentation point for cbrn:SpectrumType.

Type Name	Property Name	Property Definition
SpeedType	unitsText	A unit of measure for a value element. If used, the unit of measure shall be as stated in the documentation for the element.
StateVectorType	StateVectorLocationChoice	A data concept for various location representation types
StateVectorType	Orientation	An object's orientation (e.g., radiation measurement instrument, radiation detector, or measured item) in space in terms of an internal frame of reference attached to the object's body and an external frame of reference. The object's internal frame of reference consists of three perpendicular axes: front-back, left-right, and top-bottom. The external frame of reference consists of the horizontal plane and True North. The object's orientation is expressed in the terms of three angles: azimuth, inclination, and roll.
StateVectorType	SpeedValue	An object's speed (e.g., radiation measurement instrument, radiation detector, or measured item). If an orientation bearing is defined by the presence of the Orientation element, then the SpeedValue is considered to be along this bearing.
StateVectorType	StateVectorAugmentationPoint	An augmentation point for cbrn:StateVectorType.
SystemEventType	SystemEventDateTime	A date and time of a system event.
SystemEventType	SystemEventName	A name of a system event.
SystemEventType	SystemEventDescriptionText	A description of a system event.
SystemEventType	systemSimulatedIndicator	True if the system is simulated; false otherwise. If the attribute is not present, the value is false.
SystemEventType	SystemEventAugmentationPoint	An augmentation point for cbrn:SystemEventType.
TotalDoseMetadataType	RadRawTotalDoseValue	A TotalDose measurement data element(s) used to produce derived data. There shall be no duplicate IDREF values in the list. This is required whenever the element is used within a DerivedData block and prohibited otherwise.
TotalDoseMetadataType	RadDetectorInformation	A set of information regarding a radiation detector
TotalDoseuSvType	unitsText	A unit of measure for a value element. If used, the unit of measure shall be as stated in the documentation for the element.

Type Name	Property Name	Property Definition
TotalExposureMetadataType	RadDetectorInformation	A set of information regarding a radiation detector.
TotalExposureMetadataType	RadRawTotalExposureValue	A TotalExposure measurement data element(s) used to produce derived data. There shall be no duplicate IDREF values in the list. This is required whenever the element is used within a DerivedData block, and prohibited otherwise.
TotalExposuremRType	unitsText	A unit of measure for a value element. If used, the unit of measure shall be as stated in the documentation for the element.
TraversalType	ConveyanceID	A unique identifier for a conveyance processed through a traversal.
TraversalType	TraversalID	A unique identifier of a traversal. There is no required format for the ID value.
TraversalType	TraversalBeginDateTime	A DateTime of the start of a traversal.
TraversalType	TraversalEndDateTime	A DateTime of the end of a traversal.
TraversalType	TraversalOperatingMode	A data concept for a Traversal operating mode.
TraversalType	DetectionEventData	A set of all data collected during a Detection Event that involved the inspection of an Item(s) for the purpose of detecting the presence of illicit goods and materials. This includes data collected by the device(s) used to perform the detection as well.
TraversalType	ConveyanceBoundForCode	A description of where a conveyance is bound for when it completes a traversal.
TraversalType	TraversalAugmentationPoint	An augmentation point for cbrn:TraversalType.
VideolImageFileType	VideolImageDataRate	A data rate is the rate at which information being transferred. It is expressed in terms of [amount of information] per [unit of time].
VideolImageFileType	VideolImageFramesPerSecondValue	A frequency (rate) at which an imaging device produces unique consecutive images called frames
VideolImageFileType	VideolImageFileAugmentationPoint	An augmentation point for cbrn:VideolImageFileType.

### 4.3 CBRN Code List

The following table contains the code tables and their definitions used and referenced in the NIEM CBRN domain.

**Table 5. CBRN Code List**

Table Name	Definition
AcknowledgingAgencyCode	An organization that is responsible for generating an acknowledgement.
AnalysisResultStatusCode	A description of the success or failure status of a measurement analysis. If this element is omitted, the analysis is considered successful. The AnalysisResultDescription element shall be used to describe an analysis failure in detail.
CaseKindCode	A kind of case.
CasePriorityCode	A priority of a case.
CaseRelationshipRoleKindCode	A kind of relationship role played between two cases.
CaseRequestCode	A description of a kind of Case request.
CaseStatusCode	A status of a case.
CaseStatusIssuerCode	An Organization reporting a case status.
CaseThreatLevelCode	A threat level represented by the activities or items represented by a case.
CharacteristicValueDataClassCode	A data class of a CharacteristicValue.
compressionCode	An algorithm, if any, by which the channel data have been compressed. If this attribute is omitted, the data have not been compressed. The kinds of data compression are as follows: - None: the data are not compressed. The number of values in the ChannelData element is equal to the number of channels of data represented by the element. - CountedZeroes: the data have been compressed by the removal of repeated zero values. When a "0" value appears in the ChannelData contents, the next value is the number of consecutive zero-value channels beginning with the first zero-value in the sequence. For example, the following 18 channels of uncompressed data: 22 5 0 2 1 0 0 3 4 0 0 0 0 0 0 0 1 would be represented in compressed form by 22 5 0 1 2 1 0 2 3 4 0 8 1 The italicized values in the list show cases where one, two, and eight zeroes have been compressed.
ConveyanceBoundForCode	A description of where a conveyance is bound for when it completes a traversal.
ConveyanceKindCode	An identifier of a kind of a conveyance. For example: Ship, Airplane, Truck, etc.
ConveyanceOrgRelationshipKindCode	A description of the kind of relationship between a conveyance and organization. For example, an aircraft may have an owner, operator, leasee, etc.
ConveyancePrimaryColorCode	A color that identifies a single, upper-most, front-most, or majority color of a conveyance.
CredentialsAuthenticatedCode	A verification of the authenticating credentials.
CredentialsAuthenticationCode	A state of user credential's authentication.

Table Name	Definition
ConveyanceRelationshipKindCode	A kind of conveyance relationship; for example, contained in/on, or connected to.
ConveyanceSecondaryColorCode	A color that identifies a lower-most or rear-most color of a two-tone conveyance or a lesser color of a multi-colored conveyance.
EncounterDeviceCategoryLevelCode	A device manufacturer's name.
EquationKindCode	A kind of an equation.
FaultSeverityCode	A code indicating the seriousness of a fault.
MeasurementClassCode	An indicator A code indicating whether the data are a measurement of an item (Foreground), an environmental background (Background), a calibration source (Calibration), the intrinsic activity of the radiation measurement instrument (IntrinsicActivity), or not specified (NotSpecified).
RequestAgencyCode	An organization from which a request was initiated.
IDAcquisitionMethodCode	A code for the method of acquiring the identifier of an item.
IDConfidenceCode	A code for the confidence that the measured item identifier is correct.
ImageOrientationCode	A code for the viewing orientation of an image; i.e., portrait or landscape.
ImagePerspectiveCode	A code for the viewing perspective of the subject of an image captured as a digital data file.
InspectionResolutionCode	A code for the findings resulting from inspection of an item of interest.
InspectionThreatFindingCode	A code for the category of threat found by an inspection.
LayerMaterialKindCode	A kind of material of which a shielding layer is composed. If the kind is other, then a text description should also be provided.
MapGuideBrandCode	A code for the Brand name of a Map Guide document that provides maps of a locale with a vendor-unique grid reference system.
MeasuredItemIDKindCode	A code for a kind of identifier used for identifying a measured item.
MeasuredItemKindCode	A kind or general category of item that is being inspected.
MessageKindCode	A code for a kind of information content contained in a message.
MessagePriorityCode	A code for the message content priority associated with a content header.
MessageStatusCode	A code for the receiving status of a message.
MIMEContentCode	A MIME content type of a digital data file.
MIMEEncodingCode	An Encoding MIME type of a digital data file.
MultimediaDeviceCategoryCode	A kind of device that recorded an instance of multimedia data.
NuclideSourceGeometryCode	An assessed geometry of a radiation source.
PhotonSourceCode	A code for the photon source for a radiographic device.
RadAlarmCategoryCode	A category of radiation alarm (e.g., Neutron).
RadDetectorCategoryCode	A code for a general category of radiation detected; e.g., Gamma, Neutron.

Table Name	Definition
RadDetectorKindCode	A code for a specific kind of radiation detector; e.g., NaI.
RadInstrumentClassCode	A code for a class of radiation measurement instrument.
RadInstrumentOperatingModeCode	A code for the operating mode of a radiation measurement instrument.
RadionuclideCode	A radionuclide identified by an inspection.
ReachbackRecommendationCode	A description of a reachback recommendation.
ReachbackRequestCode	A code for a category of reachback request.
RequestScopeCode	A description of the requests scope.
ScanQualityCode	A code describing the quality of a scan.
SecondaryInspectionKindCode	A code describing a kind of secondary Inspection.
SecondaryInspectionReferralReasonCode	A reason why a Secondary Inspection was recommended.
SystemOperatingModeCode	A code for an operating mode of a system.
ThreatLevelDeterminationCode	A code for a threat level based on findings during an inspection.
TraversalOperatingModeCode	A code for the operating mode of a traversal.